

COMET ELECTRONICS

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SUN HOLD

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 Sony Manufacturing Systems Corporation

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ANG

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- cable and cable form manufacture;
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- test.

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COMET ELECTRONICS

New electronic component assembly service from Comet Electronics

Comet Electronics new SMT production line

Comet Electronics now offers a new service—
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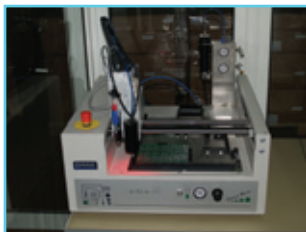
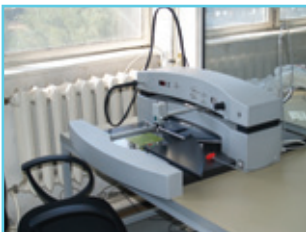
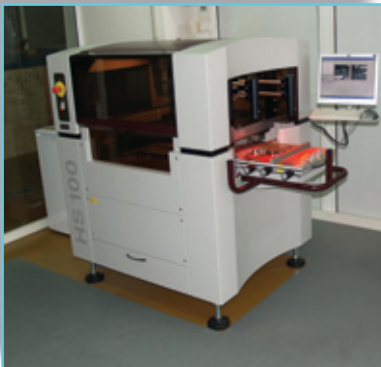
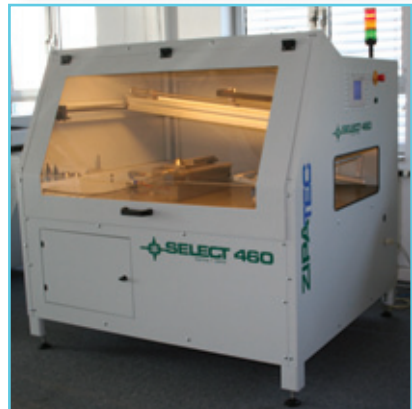
Our new production line from DIMA SMT SYSTEMS guarantees high quality SMT assembly of low volume/prototype up to medium volume production batches. The process includes high quality stencil printing of solder pastes and SMT adhesives with the semi-automatic stencil printer Hybrid HS-100 or dispensing by the desktop dispenser DD-500 Dispense Master; The SMT assembly is carried out by the Hybrid HP-110 full vision Pick & Place machine; The soldering is performed by the RO-510 Solano full convection reflow oven and Select 460 DSF – Selective soldering machine equipped with micro jet fluxer and two solder pots for lead bearing and lead free soldering.

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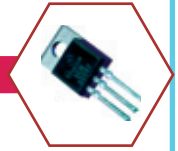
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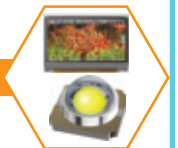
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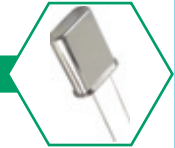
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Terms and abbreviations

A/D	Analog-to-Digital Converter	PWM	Pulse Width Modulation
ABS	Acrylonitrile Butadiene Styrene	QAM	Quadrature Amplitude Modulation
ADC	Analog-to-Digital Converter	QEI	Quadrature Encoder Interface
Adj	Adjustable	R2R	Rail-to-Rail
AM	Amplitude Modulation	RAM	Random Access Memory
ASK	Amplitude Shift Keying	RF	Radio Frequency
AUSART	Addressable Universal Synchronous Asynchronous Receiver Transmitter	RFID	Radio Frequency Identification Device
AWG	American Wire Gauge	ROHS	Restriction of the use of certain hazardous substances
B/L	Backlight	ROM	Read Only Memory
C/S	Chip Select	RTC	Real Time Clock
CA	Common Anode	S/H	Sample and Hold
CAN	Controller Area Network	SHDN	Shutdown
CC	Common Cathode	SIM	Subscriber Identification Module
CC/CV	Constant Current/Constant Voltage	SM	Surface-Mount iButton Clip
CMOS	Complementary Metal-Oxide Semiconductor	SMPS	Switch Mode Power Supply
CMP	Comparator	SPDT	Single Pole Double Throw
CTCSS	Continuous Tone-Coded Squelch System	SPI	Serial Peripheral Interface
CVSD	Continuously Variable Slope Delta Modulation	SPST	Single Pole Single Throw
DAC	Digital-to-Analog converter	SS	Single Section
DK	Demonstration Kit	STN	Super-Twisted Nematic Display
DNL	Differential Nonlinearity	SWFLASH	SELF - Write FLASH
DRV	Driver	TCXO	Temperature-Compensated Crystal Oscillator
DS	Dual Section	TFT	Thin Film Transistor Liquid Crystal Display
DSC	Digital Signal Controller	THD	Total harmonic distortion
DSP	Digital Signal Processor	TMR	Timer
DTMF	Dual-Tone Multi-Frequency	TSCR	Touch Screen
E2	EEPROM memory	TTL	Transistor-Transistor Logic
EK	Evaluation Kit	UART	Universal Asynchronous Receiver Transmitter
ER/WR	Erase/Write	UMTS	Universal Mobile Telecommunications System
ESD	Electrostatic Discharge	USB	Universal Serial Bus
EUSART	Enhanced Universal Synchronous Asynchronous Receiver Transmitter	UTI	Universal Transducer Interface
FET	Field Effect Transistor	UVLO	Undervoltage Lockout
FFC	Flat Flexible Cable	VCO	Voltage Controlled Oscillator
FFSK	Fast Frequency Shift Keying	VREG	Voltage Regulator
FM	Frequency Modulation	WDT	Watch Dog Timer
FSTN	Film Compensated Super-Twisted Nematic Display		
FS-USB	Full Speed Universal Serial Bus		
GMSK	Gaussian Minimum Shift Keying		
GPRS	General Packet Radio Service		
GPS	Global Positioning System		
GSM	Global Standard for Mobile Communications		
HSDPA	High-Speed Downlink Packet Access		
I/O	Input/Output		
I2C	Inter-Integrated Circuit		
ICs	Integrated Circuits		
ICSP	In-Circuit Serial Programming		
IEEE	Institute of Electrical and Electronics Engineers		
IGBT	Insulated Gate Bipolar Transistor		
INL	Integral Nonlinearity		
IRDA	Infrared Data Association		
ISO	International Organization for Standardization		
Isol.	Isolation		
JTAG	Joint Test Action Group		
LAN	Local Area Network		
LB	Lithium battery		
LCD	Liquid Crystal Display		
LDO	Low Drop Out		
LED	Light Emitted Diode		
LIN	Local Interconnect Network		
LNA	Low Noise Amplifier		
LPG	Liquid Petroleum GAS		
LSB	Least Significant Bit		
M2M	Machine-to-Machine		
MAC	Media Access Control		
MCU	Microcontroller		
MOS	Metal-Oxide Semiconductor		
MSB	Most Significant Bit		
MW	Microwire bus		
NV	Non-volatile		
OA	Operational Amplifiers		
PGA	Programmable Gain Amplifier		
PIO	Programmable Input/Output		
Pot	Potentiometer		

Product Advertisement

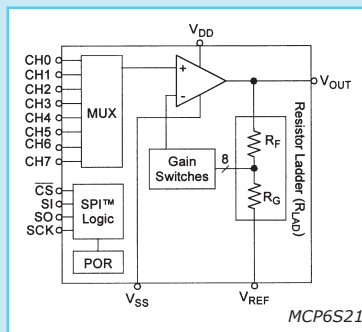
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Operational Amplifiers

			1-4	5-24	25-99	100+	500+
OP07CP	DIP8	1 OA 60uV, 0.8nA, ±1.8nA, ±3÷±18V, 0.6MHz	0.323	0.267	0.246	0.209	
OP07CD SMD	SO8	1 OA 60uV, 0.8nA, ±1.8nA, ±3÷±18V, 0.6MHz	0.265	0.218	0.201	0.171	
TL061CN	DIP8	1 OA 3mV, 5pA, 30pA, ±1.5V÷±18V, 200uA, 1MHz	0.162	0.147	0.136	0.119	0.113
TL062CN	DIP8	2 OA 3mV, 5pA, 30pA, ±1.5V÷±18V, 200uA, 1MHz	0.162	0.147	0.136	0.119	0.113
TL062CD SMD	SO8	2 OA 3mV, 5pA, 30pA, ±1.5V÷±18V, 200uA, 1MHz	0.160	0.146	0.134	0.118	0.112
TL064CN	DIP14	4 OA 3mV, 5pA, 30pA, ±1.5V÷±18V, 200uA, 1MHz	0.200	0.181	0.167	0.147	0.140
TL064CD SMD	SO14	4 OA 3mV, 5pA, 30pA, ±1.5V÷±18V, 200uA, 1MHz	0.196	0.178	0.165	0.144	0.137
TL071CN	DIP8	1 OA, 3mV, 5pA, 65pA, ±3.5V÷±18V, 1.4mA, 3MHz	0.162	0.147	0.136	0.119	0.113
TL072CN	DIP8	2 OA, 3mV, 5pA, 65pA, ±3.5V÷±18V, 1.4mA, 3MHz	0.162	0.147	0.136	0.119	0.113
TL072CD SMD	SO8	2 OA, 3mV, 5pA, 65pA, ±3.5V÷±18V, 1.4mA, 3MHz	0.160	0.146	0.134	0.118	0.112
TL074CN	DIP14	4 OA, 3mV, 5pA, 65pA, ±3.5V÷±18V, 1.4mA, 3MHz	0.200	0.182	0.168	0.147	0.140
TL074CD SMD	SO14	4 OA, 3mV, 5pA, 65pA, ±3.5V÷±18V, 1.4mA, 3MHz	0.196	0.178	0.165	0.144	0.137
TL081CN	DIP8	1 OA, 3mV, 25pA, 50pA, ±3.5V÷±18V, 3.6mA, 2.5MHz	0.162	0.147	0.136	0.119	0.113
TL082CN	DIP8	2 OA, 3mV, 25pA, 50pA, ±3.5V÷±18V, 3.6mA, 2.5MHz	0.162	0.147	0.136	0.119	0.113
TL082CD SMD	SO8	2 OA, 3mV, 25pA, 50pA, ±3.5V÷±18V, 3.6mA, 2.5MHz	0.160	0.146	0.134	0.118	0.112
TL084CN	DIP14	4 OA, 3mV, 25pA, 50pA, ±3.5V÷±18V, 3.6mA, 2.5MHz	0.200	0.182	0.168	0.147	0.140
TL084CD SMD	SO14	4 OA, 3mV, 25pA, 50pA, ±3.5V÷±18V, 3.6mA, 2.5MHz	0.196	0.178	0.165	0.144	0.137
LM324N	DIP14	4 OA, 2mV, 5nA, 45nA, 0.7mA, 3-32V, 1MHz	0.136	0.116	0.100	0.087	0.083
LM324D SMD	SO14	4 OA, 2mV, 5nA, 45nA, 0.7mA, 3-32V, 1MHz	0.134	0.114	0.098	0.085	0.081
LM324/BA10324A ROHM	DIP14	4 OA, 2mV, 5nA, 20nA, 0.6mA, 3-32V, -40÷85°C	0.353	0.321	0.296	0.259	0.247
LM324AF ROHM SMD	SO14	4 OA, 2mV, 5nA, 20nA, 0.6mA, 3-32V, -40÷85°C	0.232	0.211	0.194	0.170	0.162
LF356N	DIP8	1 OA, 3mV, 3pA, 30pA, ±18V, 5MHz, 12V/us	0.572	0.520	0.480	0.420	0.400
LM358N	DIP8	2 OA, 3mV, 2nA, 20nA, 1mA, 3-32V, 0.7MHz	0.134	0.113	0.098	0.085	0.081
LM358N UTC	DIP8	2 OA, 2.9mV, 5nA, 45nA, 0.8mA, 3-32V	0.110	0.093	0.081	0.070	0.067
LM358D SMD	SO8	2 OA, 3mV, 2nA, 20nA, 1mA, 3-32V, 0.7MHz	0.134	0.114	0.098	0.085	0.081
LM358D SMD UTC	SO8	2 OA, 2.9mV, 5nA, 45nA, 3-32V, 0.8mA	0.104	0.089	0.077	0.066	0.063
LM358/BA10358 ROHM	DIP8	2 OA, 2mV, 5nA, 45nA, 0.7mA, 3-32V, -40÷85°C	0.201	0.182	0.168	0.147	0.140
LM358F ROHM SMD	SO8	2 OA, 2mV, 5nA, 45nA, 0.7mA, 3-32V, -40÷85°C	0.194	0.176	0.163	0.142	0.136
UA741CN	DIP8	1 OA, 1mV, 20nA, 80nA, ±18V, 1.7mA, 1.0MHz	0.159	0.145	0.134	0.117	0.111
MC1458CN	DIP8	2 OA, 1mV, 80nA, 200nA, ±18V	0.155	0.132	0.114	0.099	0.094
MC1458D SMD	SO8	2 OA, 1mV, 20nA, 80nA, ±18V	0.153	0.130	0.112	0.097	0.093
LM2902N	DIP14	4 OA, 2mV, 5nA, 45nA, 0.7mA, 3-26V, -40÷85°C	0.165	0.140	0.121	0.105	0.100
LM2904N	DIP8	2 OA, 2mV, 5nA, 45nA, 1mA, 3-26V, -40÷85°C	0.165	0.140	0.121	0.105	0.100
LMC6482AIM	SO8	2 OA, 0.75mV, 2pA, 4pA, 1.6mA, 3-15.5V, -40÷85°C	1.274	1.186	1.108	0.980	
CA3130E	DIP8	1 OA, 5mV, 0.5pA, 5pA, 5-16V, 10mA, 15MHz	1.024	0.953	0.890	0.788	
CA3140E	DIP8	1 OA, 5mV, 0.5pA, 10pA, 36V, 4mA, 4.5MHz	0.529	0.493	0.460	0.407	
CA3240E	DIP8	2 OA, 5mV, 0.5pA, 10pA, 36V, 8.4mA, 4.5MHz	1.160	1.079	1.008	0.892	
MAX4238ASA	SO8	1 OA, 2uV, 1pA, 2pA, 0.6mA, 2.7÷5.5V, 1MHz	1.682	1.495	1.333	1.246	
NE5534	DIP8	1 OA, 0.5mV, 20nA, 500nA, ±22V, 4mA, 10MHz	0.304	0.283	0.264	0.234	
NE5534D SMD	SO8	1 OA, 0.5mV, 20nA, 500nA, ±22V, 4mA, 10MHz	0.251	0.234	0.218	0.193	

Operational Amplifiers MICROCHIP

			1-4	5-24	25-99	100+
MCP601-I/P	DIP8	1 OA 2mV, 1pA, 20pA, 2.7÷5.5V, 230uA, 2.8MHz	0.513	0.475	0.391	0.380
MCP601-I/SN	NSO8	1 OA 2mV, 1pA, 20pA, 2.7÷5.5V, 230uA, 2.8MHz	0.513	0.475	0.391	0.380
MCP602-I/P	DIP8	2 OA 2mV, 1pA, 20pA, 2.7÷5.5V, 230uA, 2.8MHz	0.662	0.613	0.505	0.490
MCP602-I/SN	NSO8	2 OA 2mV, 1pA, 20pA, 2.7÷5.5V, 230uA, 2.8MHz	0.662	0.613	0.505	0.490
MCP603-I/P	DIP8	1 OA 2mV, 1pA, 20pA, 2.7÷5.5V, 230uA, 2.8MHz, C/S	0.540	0.500	0.412	0.400
MCP603-I/SN	NSO8	1 OA 2mV, 1pA, 20pA, 2.7÷5.5V, 230uA, 2.8MHz, C/S	0.540	0.500	0.412	0.400
MCP604-I/P	DIP14	4 OA 2mV, 1pA, 20pA, 2.7÷5.5V, 230uA, 2.8MHz	1.229	1.138	0.937	0.910
MCP604-I/SL	NSO14	4 OA 2mV, 1pA, 20pA, 2.7÷5.5V, 230uA, 2.8MHz	1.229	1.138	0.937	0.910
MCP606-I/P	DIP8	1 OA 0.2mV, 80pA, 25uA, 2.7÷5.5V, 155kHz	0.770	0.713	0.587	0.570
MCP606-I/SN	NSO8	1 OA 0.2mV, 80pA, 25uA, 2.7÷5.5V, 155kHz	0.770	0.713	0.587	0.570
MCP607-I/P	DIP8	2 OA 0.2mV, 80pA, 25uA, 2.7÷5.5V, 155kHz	1.026	0.950	0.783	0.760
MCP607-I/SN	NSO8	2 OA 0.2mV, 80pA, 25uA, 2.7÷5.5V, 155kHz	1.026	0.950	0.783	0.760
MCP608-I/P	DIP8	1 OA 0.2mV, 80pA, 25uA, 2.7÷5.5V, 155kHz, C/S	0.824	0.763	0.628	0.610
MCP608-I/SN	NSO8	1 OA 0.2mV, 80pA, 25uA, 2.7÷5.5V, 155kHz, C/S	0.824	0.763	0.628	0.610
MCP609-I/P	DIP14	4 OA 0.2mV, 80pA, 25uA, 2.7÷5.5V, 155kHz	1.539	1.425	1.174	1.140
MCP609-I/SL	NSO14	4 OA 0.2mV, 80pA, 25uA, 2.7÷5.5V, 155kHz	1.539	1.425	1.174	1.140
MCP6041-I/P	DIP8	1 OA 3mV, 1pA, 1pA, 1.4÷5.5V, 600nA, 14kHz	0.635	0.588	0.484	0.470
MCP6041-I/SN	NSO8	1 OA 3mV, 1pA, 1pA, 1.4÷5.5V, 600nA, 14kHz	0.635	0.588	0.484	0.470



Operational Amplifiers MICROCHIP

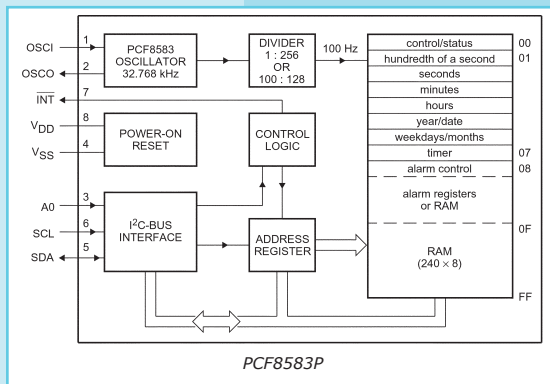
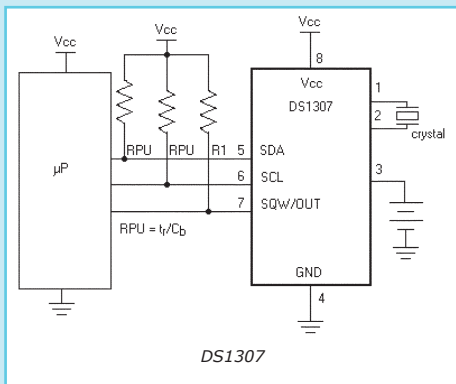
			1-4	5-24	25-99	100+
MCP6022-I/P	DIP8	2 OA 0.5mV,30pA,1pA, 2.5÷5.5V, 1.0mA, 10MHz	1.377	1.275	1.051	1.020
MCP6022-I/SN	NS08	2 OA 0.5mV,30pA,1pA, 2.5÷5.5V, 1.0mA, 10MHz	1.377	1.275	1.051	1.020
MCP6024-I/P	DIP14	4 OA 0.5mV,30pA,1pA, 2.5÷5.5V, 1.0mA, 10MHz	2.025	1.875	1.545	1.500
MCP6024-I/SL	NSO14	4 OA 0.5mV,30pA,1pA, 2.5÷5.5V, 1.0mA, 10MHz	2.025	1.875	1.545	1.500
MCP6142-I/P	DIP8	2 OA 3mV,1pA,1pA, 1.4÷5.5V,600nA,100kHz	0.851	0.788	0.649	0.630
MCP6142-I/SN	NS08	2 OA 3mV,1pA,1pA, 1.4÷5.5V,600nA,100kHz	0.851	0.788	0.649	0.630
MCP6S21-I/P	DIP8	1ch. PGA,8 Gain Steps,2.5÷5.5V,1.1mA,12MHZ,SPI	1.202	1.113	0.917	0.890
MCP6S21-I/SN	N SO8	1ch. PGA,8 Gain Steps,2.5÷5.5V,1.1mA,12MHZ,SPI	1.134	1.050	0.865	0.840
MCP6S21-I/MS	N SO8	1ch. PGA,8 Gain Steps,2.5÷5.5V,1.1mA,12MHZ,SPI	1.134	1.050	0.865	0.840
MCP6S28-I/P	DIP16	8ch. PGA,8 Gain Steps,2.5÷5.5V,1.1mA,12MHZ,SPI	2.498	2.313	1.906	1.850
MCP6S28-I/SL	N SO16	8ch. PGA,8 Gain Steps,2.5÷5.5V,1.1mA,12MHZ,SPI	2.282	2.113	1.741	1.690

Comparators

			1-4	5-24	25-99	100+	500+
LM311N	DIP8	1 comp. 2mV,6nA,100nA,5÷36V,5mA	0.140	0.119	0.103	0.089	0.085
LM311D SMD	NS08	1 comp. 2mV,6nA,100nA,5÷36V,5mA	0.140	0.119	0.103	0.089	0.085
LM339N	DIP14	4 comp. 2mV,5nA,25nA,3÷36V,0.8mA	0.133	0.113	0.098	0.085	0.081
LM339D SMD	NSO14	4 comp. 2mV,5nA,25nA,3÷36V,0.8mA	0.133	0.113	0.098	0.085	0.081
LM339F/BA10339 ROHM	DIP14	4 comp. 2mV,5nA,25nA,3÷36V,-40÷85°C	0.313	0.277	0.250	0.219	0.208
LM339F ROHM SMD	NSO14	4 comp. 2mV,5nA,25nA,3÷36V,-40÷85°C	0.201	0.178	0.161	0.141	0.134
LM393N	DIP8	2 comp. 2mV,5nA,25nA,3÷36V,0.4mA	0.133	0.113	0.098	0.085	0.081
LM393N UTC	DIP8	2 comp. 1mV,5nA,65nA,2÷36V,0.8mA	0.116	0.099	0.085	0.074	0.071
LM393D SMD	NS08	2 comp. 2mV,5nA,25nA,3÷36V,0.4mA	0.133	0.113	0.098	0.085	0.081
LM393D SMD UTC	SO8	2 comp. 1mV,5nA,65nA,2÷36V,0.8mA	0.112	0.095	0.082	0.071	0.068
LM393F/BA393 ROHM	DIP8	2 comp. 2mV,5nA,25nA,3÷36V,-40÷85°C	0.171	0.155	0.143	0.125	0.119
LM393F ROHM SMD	NS08	2 comp. 2mV,5nA,25nA,3÷36V,-40÷85°C	0.166	0.141	0.122	0.106	0.101
LM2901N	DIP14	4 comp. 1mV,5nA,25nA,2÷36V,1.1mA,-40÷85°C	0.169	0.144	0.124	0.108	0.103
LM2903N	DIP8	2 comp. 1mV,5nA,25nA,2÷36V,0.4mA,-40÷85°C	0.169	0.144	0.124	0.108	0.103
MAX903CSA	NS08	1 comp. 2mV, 6uA, 200nA, 5÷10V	6.194	5.744	5.344	4.995	
MCP6542-I/P	DIP8	2 comp. 1.5mV,1pA,1.6÷5.5V, R2R / Push-Pull	0.594	0.550	0.453	0.440	

Timers, RTC

			1-4	5-24	25-99	100+	500+
ICM7555CN	DIP8	DIP8 CMOS timer 555,1,5÷15V	0.280	0.248	0.224	0.196	0.186
LMC555CN	DIP8	DIP8 CMOS timer 555,1,5÷15V	0.709	0.628	0.567	0.496	0.472
ICM7555CD SMD	SO8	SO8 CMOS timer 555,1,5÷15V	0.232	0.206	0.185	0.162	0.155
NE555N	DIP8	DIP8 timer 555,4,5÷16V	0.121	0.107	0.097	0.085	0.081
NE555D SMD	SO8	SO8 timer 555,4,5÷16V	0.120	0.106	0.096	0.084	0.080
NE556N	DIP14	DIP14 Dual Timer,4,5÷16V	0.162	0.145	0.136	0.120	
NE556D SMD	SO14	SO14 Dual Timer,4,5÷16V	0.160	0.143	0.134	0.118	
DS12C887	DIP24	real time clock+quartz+RAM+lithium batt.-10years	3.907	3.624	3.372	3.151	
DS1307	DIP8	64 x 8 Serial Real Time Clock 0÷70°C	2.257	2.093	1.947	1.820	
DS1307N	DIP8	64 x 8 Serial Real Time Clock -40÷85°C	2.096	1.944	1.808	1.690	
DS1302Z SMD	SO8	31 x 8 Serial Real Time Clock, 0÷70°C	2.431	2.254	2.097	1.960	
DS1307Z SMD	SO8	64 x 8 Serial Real Time Clock 0÷70°C	2.414	2.239	2.083	1.947	
DS1307ZN SMD	SO8	64 x 8 Serial Real Time Clock, -40÷85°C	3.043	2.822	2.625	2.454	
DS1338Z-3	SO8	64 x 8 Serial Real Time Clock. Vcc=3V, -40÷85°C	2.265	2.101	1.955	1.827	
PCF8583P	DIP8	240 x 8 Serial real time clock,-40÷85°C	1.606	1.482	1.420	1.235	



Audio ICs

			1-24	25-99	100-499	500+
LM386N-1	DIP8	325mW/80hm,THD 10%,4÷12V	0.458	0.407	0.363	0.339
TBA820M	DIP8	2W /8 Ohm 16V 20 KHz	0.206	0.184	0.164	0.153
TDA2003V	TO220-5	10W/2 Ohm,THD 0.15%,8÷18V	0.352	0.313	0.279	0.261



Product range

Timing products

- ◆ Real Time Clocks
- ◆ Crystal oscillators
- ◆ Timing/Clock IC

Voltage MCU supervisory IC

- ◆ Capacitive touch interface
- ◆ Analog drivers and sensor controllers

RF Identification (RFID)

- ◆ RFID readers
- ◆ RFID transponders

Low power microcontrollers

- ◆ Optoelectronics
- ◆ Analog drivers and sensor controllers

Display & Touch modules

- ◆ OLED displays
- ◆ Plastic Flexible LCD
- ◆ B/W and color LCD
- ◆ Contact smart card ICs
- ◆ LCD controller/driver ICs
- ◆ Custom Designs ASICs and modules

Real Time Clock ICs

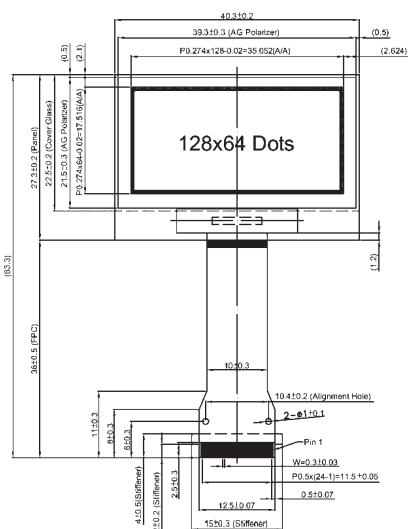
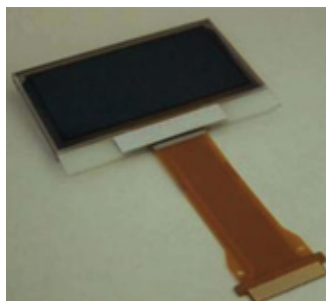
Product	V3020	V3021	EM3027	EM3029
Operating temperature range	-40 ÷ 125°C	-40 ÷ 125°C	-40 ÷ 125°C	-40 ÷ 125°C
Built-in quartz crystal	-	-	-	Yes
Battery Switch over	-	-	Yes	Yes
Supply voltage	1.2 – 5.5V	2.0 – 5.5V	1.5 – 5.5V	1.5 – 5.5V
Standby current 25 °C (Over temp.)	0.4 (0.6)µA	0.8 (1.8)µA	0.4µA @ 1.5V	0.4µA @ 1.5V
Interface	1-bit serial	1-bit serial	I2C, SPI	I2C, SPI
Access time (max)	60 ns	60 ns	-	-
Transfer frequency (max)	-	-	400 kHz	400 kHz
User RAM	-	-	8 bytes	8 bytes
User EEPROM	-	-	2 bytes	2 bytes
On-chip frequency trimming	-	-	Yes	Yes
On-chip temperature compensation control	-	-	Yes	Yes
Timer, Alarm, Pulse interrupts	-	-	Yes	Yes
Package	SO8, TSSOP8	SO8, DIP8	SO8, MLF8, TSSOP8	Ceramic SON10

OLED Display module TAT07

- ◆ Display - OLED monochrome, yellow, dot matrix 128 x 64;
- ◆ Dots dimensions 0.254 mm x 0.254 mm;
- ◆ Module size (W x H x T) 40.3 mm x 63.3 mm x 2.01 mm;
- ◆ Supply voltage VDD 2.4V to 3.5V / OLED VCC 8V - 16V;
- ◆ Operating temperature range -30°C to +70°C;
- ◆ Life time at 80cd/sqrm - 50K hours.

APPLICATION:

- ◆ MP3 players;
- ◆ Appliance electronics;
- ◆ POS terminals;
- ◆ Credit card readers;
- ◆ Cash registers;
- ◆ Measurement units;
- ◆ Indicator panels.



EM Microelectronics offers custom design OLED modules with different technologies (COF, COG, COB), custom connectors and touch screen options.

Power management & supervisory ICs

Product	EM6353	EM6325	EM6352	EM6354	EM6360
Nominal RESET threshold, V	1.31, 1.38, 1.57, 1.66, 1.80, 2.20, 2.26, 2.63, 2.93, 3.08, 4.40, 4.63 Accuracy $\pm 1.5\%$				
Reset timeout period, ms	25, 200	1.6, 25, 200, 1600	0	Adjustable	1.6, 25, 200, 1600
Supply current, μA	2.9	2.9	2.7	2.7	5.8
Output options	Push-Pull Low, Push-Pull High, Open drain RESET				
Package	SOT23-3 SC70-5	SOT23-5 SC70-4	SOT23-3/5 SC70-3/4	SOT23-5 SC70-4	SOT23-5
Remark	-	Manual RESET	-	-	Dual input

Low power microcontrollers

EM6680/EM6580 - Low cost 8-pin MCU

- ◆ Ultra low current - 4 μA active mode;
- ◆ Small TSSOP8 package, no external components;
- ◆ 32 to 800kHz, 4 bit ADC or 12-level SVLD;
- ◆ FLASH (EM6580) or ROM (EM6680).

EM6812 - Ultra low power 8-bit MCU

- ◆ True Low power consumption:
 - ◆ 120 μA active mode;
 - ◆ 6 μA standby mode, RC on;
 - ◆ 0.8 μA standby mode, RC off;
- ◆ 8-bit CoolRISC CPU core, up to 22Kbytes FLASH;
- ◆ Up to 2.5 MIPS, 1-10MHz RC oscillator, 32kHz crystal;
- ◆ Power check function at start-up, brownout detection;
- ◆ 8-level SVLD, 4 timers.



RFID Reader ICs



- ◆ **EM4095** - 125KHz-134 KHz, Read/write analog front end for RFID Base Station;
- ◆ **EM4094** - 13.56MHz, ISO 15693 and ISO 14443A&B, Analog Front End 13.56MHz, ISO 15693 and ISO 14443A&B, analog interface;
- ◆ **EM4294** - 13.56MHz Crypto Analogue Front End Circuit for High Secure RFID;
- ◆ **EM4298** - UHF Decoder/Encoder circuit, iP-X, ISO 18000-6A/B & C compliant.

RFID reader Development kits

EM Microelectronic offers development kits, containing a reader with external antenna, transponders and Windows-based software for test and/or demonstration of new applications.

- ◆ **EMDB408** - EM4094 HF Development kit for 13.56 MHz;
- ◆ **EMDB409** - EM4095 LF Development kit for 125 kHz;
- ◆ **EMDB410** - EM4294 HF Development kit for 13.56 MHz.

Comet Electronics also offers different types of standard ISO RFID cards, RFID tags and fobs based on EM Microelectronic transponders from SES RFID Solutions.

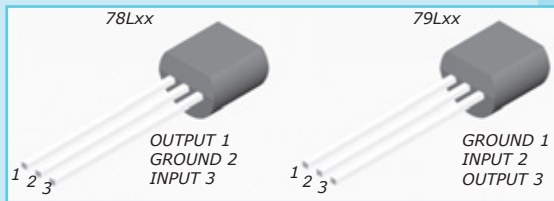


Voltage References

			1-4	5-24	25-99	100+	500+
LM336Z-2.5	TO92	2.5V, If=10mA max., 0÷70°C	0.170	0.153	0.141	0.131	0.121
LM336Z-5.0	TO92	5V If=10mA max 54 ppm/°C	0.170	0.153	0.141	0.131	0.121
LM385Z-1.2	TO92	1.2V If=20mA max 150 ppm/°C	0.356	0.320	0.295	0.275	0.254
LM385M-1.2 SMD	NS08	1.2V If=20mA max 150 ppm/°C	0.438	0.399	0.351	0.325	
LM385Z-2.5	TO92	2.5V If=10mA max 150 ppm/°C	0.356	0.320	0.295	0.275	0.254
LM385M-2.5 SMD	NS08	2.5V If=10mA max 150 ppm/°C	0.438	0.399	0.351	0.325	
TL431CLP MBR	TO92	2.5V Shunt reg. 2% 50 ppm/°C, TO92	0.131	0.111	0.096	0.083	0.079
TL431AILP MBR	TO92	2.5V Shunt reg. 2% 50 ppm/°C, -40÷85°C, TO92	0.184	0.156	0.135	0.117	0.111
TL431 DIV	TO92	2.5V Shunt reg. 2% 50 ppm/°C, TO92	0.080	0.055	0.044	0.038	0.037
TL431CD SMD	NS08	2.5V Shunt reg. 2% 50 ppm/°C, SOIC	0.115	0.097	0.084	0.073	0.069
ZR431F SMD	SOT23	2.5V Shunt reg. 2% 55 ppm/°C, SOT24	0.295	0.272	0.258	0.245	0.231

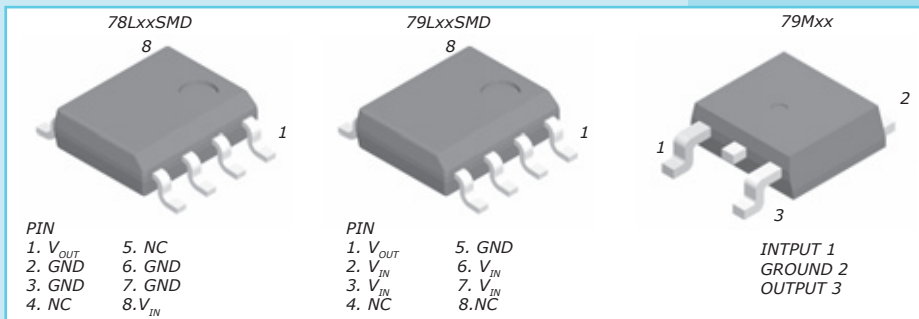
**Voltage Regulators
100mA TO92**

			1-4	5-24	25-99	100+	500+
78L05	TO92	5V 100mA 5%	0.096	0.081	0.070	0.061	0.058
78L05 DIV	TO92	5V 100mA 5%	0.087	0.060	0.048	0.042	0.040
78L06	TO92	6V 100mA 5%	0.136	0.115	0.099	0.086	0.082
78L08	TO92	8V 100mA 5%	0.129	0.109	0.094	0.082	0.078
78L09	TO92	9V 100mA 5%	0.103	0.087	0.076	0.066	0.062
78L12	TO92	12V 100mA 5%	0.103	0.087	0.076	0.066	0.062
78L15	TO92	15V 100mA 5%	0.107	0.091	0.079	0.068	0.065
79L05	TO92	-5V 100mA 5%	0.129	0.109	0.094	0.082	0.078
79L12	TO92	-12V 100mA 5%	0.103	0.087	0.076	0.066	0.062
79L15	TO92	-15V 100mA 5%	0.145	0.123	0.107	0.093	0.088



100mA SMD

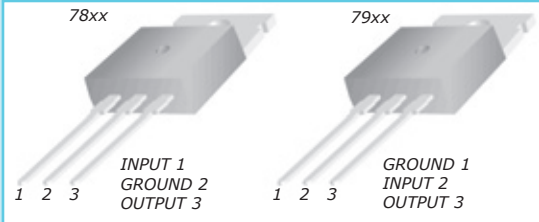
			1-4	5-24	25-99	100-499	500+
78L33 SMD	S08	3.3V 100mA 5%	0.126	0.110	0.105	0.099	0.094
78L33 SMD SOT89	SOT89	3.3V 100mA 5%	0.225	0.197	0.187	0.177	0.167
78L05 SMD S08	S08	5V 100mA 5%	0.103	0.090	0.085	0.081	0.076
78L05 SMD SOT89 MBR	SOT89	5V 150mA 5%	0.108	0.094	0.089	0.085	0.080
78L05 SMD SOT89 DIV	SOT89	5V 100mA	0.067	0.059	0.056	0.053	0.050
78L08 SMD	S08	8V 100mA 5%	0.111	0.097	0.092	0.087	0.082
78L12 SMD	S08	12V 100mA 5%	0.111	0.097	0.092	0.087	0.082
79L05 SMD	S08	-5V 100mA 5%	0.111	0.097	0.092	0.087	0.082



LDO 100-500mA

			1-4	5-24	25-99	100-499	500+
MCP1700T-1202E/MB	SOT89	1.2V±2% 200mA, LDO 0.35V, Vinmax=6V	0.405	0.375	0.309	0.300	
MCP1700T-1502E/TT	SOT23-3	1.5V±2% 200mA, LDO 0.35V, Vinmax=6V	0.405	0.375	0.309	0.300	
MCP1700T-1802E/TT	SOT23-3	1.8V±2% 200mA, LDO 0.35V, Vinmax=6V	0.405	0.375	0.309	0.300	
MCP1700-2502E/TO	TO92	2.5V±2% 250mA, LDO 0.35V, Vinmax=6V	0.405	0.375	0.309	0.300	
MCP1700T-2502E/TT	SOT23-3	2.5V±2% 250mA, LDO 0.35V, Vinmax=6V	0.405	0.375	0.309	0.300	
MCP1700T-2502E/MB	SOT23-3	2.5V±2% 250mA, LDO 0.35V, Vinmax=6V	0.405	0.375	0.309	0.300	
MCP1700T-3002E/TT	SOT23	3.0V±2% 250mA, LDO 0.35V, Vinmax=6V	0.405	0.375	0.309	0.300	
MCP1700T-3302E/TT	SOT23	3.3V±2% 250mA, LDO 0.35V, Vinmax=6V	0.405	0.375	0.309	0.300	
MCP1700T-3302E/MB	SOT89	3.3V±2% 250mA, LDO 0.35V, Vinmax=6V	0.405	0.375	0.309	0.300	
MCP1700T-5002E/TT	SOT23	5.0V±2% 250mA, LDO 0.35V, Vinmax=6V	0.405	0.375	0.309	0.300	

LDO 100-500mA			1-4	5-24	25-99	100-499	500+
MCP1700T-5002E/MB	SOT89	5.0V±2% 250mA, LDO 0.35V, Vinmax=6V	0.405	0.375	0.309	0.300	
MCP1702T-3002E/CB	SOT23	3V±2% 250mA, LDO 975mV, Vin 2.7÷13.2V	0.540	0.500	0.412	0.400	
MCP1702-3002E/TO	TO92	3V±2% 250mA, LDO 975mV, Vin 2.7÷13.2V	0.540	0.500	0.412	0.400	
MCP1702T-3302E/CB	SOT23A-3	3.3V±2% 250mA, LDO 725mV, Vin 2.7÷13.2V	0.540	0.500	0.412	0.400	
MCP1702-3302E/TO	TO92	3.3V±2% 250mA, LDO 725mV, Vin 2.7÷13.2V	0.540	0.500	0.412	0.400	
MCP1702T-5002E/CB	SOT23A-3	5V±2% 250mA, LDO 650mV, Vin 2.7÷13.2V	0.540	0.500	0.412	0.400	
TC1173-3.0VOA	S08	3.0V±2% 300mA, LDO 0,48V, Vinmax=6V	0.884	0.819	0.675	0.655	
TC1173-5.0VOA	S08	5V±2% 300mA, LDO 0.48V, Vinmax=6V	0.884	0.819	0.675	0.655	
TC1263-3.0VETTR	D2PAK5	3.0V±2% 500mA, LDO 0,65V, Vinmax=6V	1.435	1.329	1.095	1.063	
LM2931A2-5.0	TO92	5V 100mA, LDO 0.3V, Vinmax=26V	0.299	0.266	0.237	0.222	
BH33FB1WG-TR ROHM	SSOP5	3.3V±1% 150mA, LDO 0.45V, Vinmax=5.5V	0.160	0.142	0.127	0.119	
LDO SMD 0.5-1A			1-4	5-24	25-99	100-499	500+
78M05 SMD	DPAK	5V 500mA DPAK	0.197	0.175	0.156	0.146	
7805 SMD	TO263	5V 1A TO-263 (D2PAK)	0.403	0.358	0.319	0.298	
7805FP ROHM SMD	TO252	5V 1A 5% TO252	0.358	0.318	0.284	0.265	
7812 SMD	TO252	12V 1A DPAK	0.351	0.311	0.281	0.246	0.234
LDO 1A			1-4	5-24	25-99	100-499	500+
7805 MBR	TO220	5V 1.5A 4% TO220(A)	0.179	0.159	0.143	0.125	0.119
7805/BA17805T ROHM	TO220FP	5V 1A 2W Insulated package -40÷85°C	0.456	0.404	0.365	0.319	0.304
7806	TO220	6V 1A TO220	0.179	0.159	0.143	0.125	0.119
7808 DIV	TO220	8V 1A TO220	0.179	0.159	0.143	0.125	0.119
7808 MBR	TO220	8V 1A TO220	0.232	0.206	0.186	0.163	0.155
7809	TO220	9V 1A TO220	0.179	0.159	0.143	0.125	0.119
7810	TO220	10V 1A TO220	0.271	0.241	0.217	0.190	0.181
7812	TO220	12V 1A TO220	0.180	0.160	0.144	0.126	0.120
7812/BA17812T ROHM	TO220FP	12V 1A 2W Insulated package -40÷85°C TO220	0.456	0.404	0.365	0.319	0.304
7815	TO220	15V 1A TO220	0.204	0.181	0.163	0.143	0.136
7815/BA17815T ROHM	TO220FP	15V 1A 2W Insulated package -40÷85°C TO220	0.430	0.381	0.344	0.301	0.287
7818	TO220	18V 1A TO220	0.246	0.218	0.197	0.172	0.164
7824	TO220	24V 1A TO220	0.189	0.167	0.151	0.132	0.126
7824/BA17824T ROHM	TO220FP	24V 1A 2W Insulated package -40÷85°C TO220	0.456	0.404	0.365	0.319	0.304
7905	TO220	-5V 1A TO220	0.202	0.179	0.162	0.142	0.135
7906	TO220	-6V 1A TO220	0.249	0.221	0.199	0.174	
7908	TO220	-8V 1A TO220	0.249	0.221	0.199	0.174	
7912	TO220	-12V 1A TO220	0.227	0.201	0.181	0.159	0.151
7915	TO220	-15V 1A TO220	0.227	0.201	0.181	0.159	0.151
7924	TO220	-24V 1A TO220	0.261	0.231	0.208	0.182	

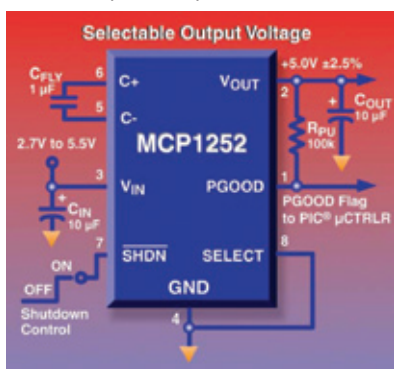


LDO 1A ROHM			1-4	5-24	25-99	100+
BA30BC0FP ROHM SMD	TO252-3	3.0V±2% 1A, LDO 0.3V Insulated package	0.433	0.385	0.343	0.320
BA033T ROHM	TO220FP3	3.3V±5% 1A, LDO 0.3V Insulated package	0.657	0.584	0.521	0.487
BA033ST ROHM	TO220FP5	3.3V±5% 1A, LDO 0.3V, ON/OFF Insulated package	0.759	0.675	0.602	0.563
BA033CC0WFP ROHM SMD	TO252-5	3.3V±2% 1A, LDO 0.3V, ON/OFF Insulated package	0.560	0.498	0.444	0.415
BA033SFP ROHM SMD	TO252-5	3.3V±5% 1A, LDO 0.3V, ON/OFF Insulated package	0.543	0.483	0.431	0.402
BA05CC0T ROHM	TO220FP3	5V±2% 1A, LDO 0.3V, ON/OFF Insulated package	0.869	0.773	0.689	0.644
BA05T ROHM	TO220FP3	5V±5% 1A, LDO 0.3V Insulated package	0.657	0.584	0.520	0.486
BA05ST ROHM	TO220FP5	5V±5% 1A, LDO 0.3V, ON/OFF Insulated package	0.750	0.667	0.595	0.556
BA05CC0WT ROHM	TO220FP5	5V±2% 1A, LDO 0.3V, ON/OFF Insulated package	0.901	0.801	0.714	0.667
BA05CC0WFP ROHM SMD	TO252-5	5V±2% 1A, LDO 0.3V, ON/OFF Insulated package	0.556	0.494	0.441	0.412
BA12T ROHM	TO220FP	12V±5% 1A, LDO 0.3V Insulated package	0.750	0.667	0.595	0.556
LDO 2A			1-4	5-24	25-99	100+
78S05	TO220	5V 2A TO220	0.362	0.322	0.287	0.268
78S12	TO220	12V 2A TO220	0.362	0.322	0.287	0.268
78S15	TO220	15V 2A TO220	0.362	0.322	0.287	0.268
78S24	TO220	24V 2A TO220	0.362	0.322	0.287	0.268
LDO 3A			1-4	5-24	25-99	100+
78T05	TO220	5V 3A 25W TO220	0.545	0.484	0.432	0.403

Inductorless DC-DC Charge pumps

MCP 1252

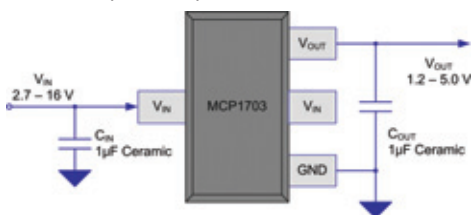
- ◆ 80 μ A quiescent current;
- ◆ No need of inductors;
- ◆ Output current 120 mA;
- ◆ Input voltage 2.0 – 5.5 V;
- ◆ Output voltage 3.3V, 5.5V or adjustable;
- ◆ Short-circuit protection;
- ◆ Overtemperature protection.



LDO (Low Drop Out) linear voltage regulators

MCP 1703

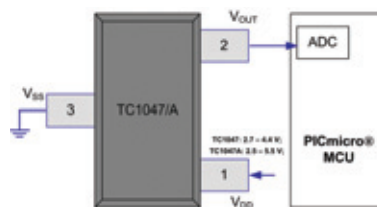
- ◆ Input voltage 2.7÷16.0V;
- ◆ 2.0 μ A quiescent current;
- ◆ Output voltage 1.2÷5.0V;
- ◆ Output current 250mA ($V_{OUT} \geq 2.5V$);
- ◆ Output current 200mA ($V_{OUT} < 2.5V$);
- ◆ Stable with 1 to 22 μ F output capacitor;
- ◆ Short-circuit protection;
- ◆ Overtemperature protection.



Order code	Description	Max. Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Typical Active Current (μ A)	Typical Dropout Voltage @ Max. Iout (mV)	Typical Output Voltage Accuracy (%)	Packages
MCP1700	Range 50 mA to 250 mA	6	1.8, 2.5, 3.0, 3.3, 5.0	250@ $V_{OUT} \geq 2.5V$ 200@ $V_{OUT} < 2.5V$	1	300	0.4	3/SOT-23 3/SOT-89 3/TO-92
MCP1702	Range 50 mA to 250 mA	13.2	1.2, 1.5, 1.8, 2.5, 2.8, 3.0, 3.3, 4.0, 5.0	250@ $V_{OUT} \geq 2.5V$ 200@ $V_{OUT} < 2.5V$	2	330	0.4	3/SOT-23A 3/SOT-89 3/TO-92
MCP1703	Range 50 mA to 250 mA	16	1.2, 1.5, 1.8, 2.5, 3.0, 3.3, 4.0, 5.0	250@ $V_{OUT} \geq 2.5V$ 200@ $V_{OUT} < 2.5V$	2	625	0.4	3/SOT-223 3/SOT-23A 3/SOT-89

Temperature sensors	
Device	Description
Voltage output	
TC1046	High-precision temperature-to-voltage converter, 6.25mV/°C
TC1047/47A	High-precision temperature-to-voltage converter, 10mV/°C
MCP9700/01	Linear Active thermistors, low-cost, (high performance „A” version)
Logic output	
TC6501/2/3/4	Ultra small temperature switches with pin-selectable hysteresis
TC620/21	5V Dual trip-point temperature switches
TC622/24	Single trip-point temperature switches, low cost
TC623	3V Dual trip-point temperature switches
Serial output	
TC72	High-accuracy, 10-bit Digital thermal sensor 4-wire SPI interface
TC74	Digital thermal sensor, SMBus interface, SOT23 package
TC77	High-accuracy 13-bit Digital thermal sensor 3-wire SPI interface
TCN75A	Digital thermal sensor, with serial interface and temperature switch
MCP9800/1/2/3	High-accuracy 12-bit Digital thermal sensor with 2-wire interface
MCP9805	High-accuracy 10-bit Digital thermal sensor with 2-wire interface and programmable temperature switch
MCP98242	High-accuracy Digital thermal sensor with 2-wire interface and programmable temperature switch

TC1047A - High-accuracy voltage-to-temperature converter

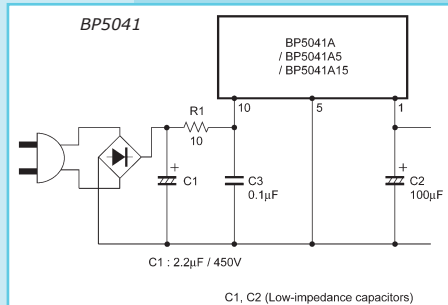
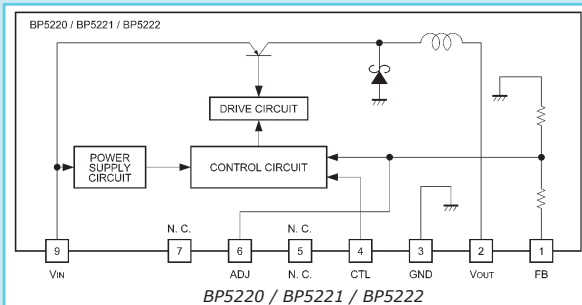


- ◆ Analog thermal sensor in small 3-pin SOT23B package;
- ◆ Easy to use with standard PIC micro®;
- ◆ $\pm 2^\circ\text{C}$ (max.) accuracy at 25°C;
- ◆ Linear temperature slope 10 mV/°C typ.;
- ◆ Wide temperature measurement range -40°C to 125°C;
- ◆ Power supply TC1047: 2.7 – 4.4V;
TC1047A: 2.5 – 5.5V;
- ◆ Low power consumption 35 μ A typ.

Adjustable			1-4	5-24	25-99	100-499	500+
LM317LZ	TO92	1.2-37V 100mA Adjustable TO92	0.156	0.138	0.124	0.109	0.104
LM317T	TO220	1.2-37V 1.5A Adjustable TO220	0.260	0.230	0.208	0.182	0.173
LM317S SMD	TO263	1.2-37V 1.5A Adjustable TO263	1.139	1.012	0.903	0.844	
LM337LZ	TO92	-1.2/-37V 100mA Negative, Adjustable	0.433	0.385	0.343	0.321	
LM337T	TO220	-1.2/-37V 1.5A Negative, Adjustable	0.374	0.333	0.297	0.277	
UA723CN	DIP14	2-37V 150mA Adjustable DIP14	0.375	0.333	0.297	0.278	
Voltage Regulators - Switching Mode			1-4	5-24	25-99	100-499	500+
TL494CN	DIP16	1kHz±200kHz 40V 0.2A I_{in} 7÷40V	0.274	0.243	0.220	0.192	0.183
LM2574N-5.0	DIP8	52kHz 5V 0,5A I_{in} 1,3÷40V DIP8	1.118	0.994	0.886	0.828	
LM2575T-ADJ	TO220	52kHz 1,23÷37V 1A I_{in} 1,4÷40V TO220	1.678	1.492	1.330	1.243	
LM2575T-5.0	TO220	52kHz 5V 1A I_{in} 1,4÷40V TO220	1.489	1.323	1.180	1.103	
LM2575T-12	TO220	52kHz 12V 1A I_{in} 1,4÷40V TO220	1.868	1.660	1.480	1.384	
LM2575S-5.0 SMD	TO263	52kHz 5V 1A I_{in} 1,4÷40V TO263	1.657	1.473	1.313	1.227	
LM2575D2T-ADJ SMD	TO263	52kHz 1,23-37V 1A I_{in} 1,4÷40V TO263	1.597	1.420	1.266	1.183	
LM2575HVT-5.0	TO220	52kHz 5V 1A I_{in} 1,4÷60V TO220	4.779	4.338	3.897	3.676	
LM2575HVT-ADJ	TO220	52kHz 1,23-57V 1A I_{in} 1,4÷60V TO220	4.779	4.338	3.897	3.676	
LM2576T-5.0	TO220	52kHz 5V 3A I_{in} 1,4÷40V TO220	1.597	1.420	1.266	1.183	
LM2576T-12	TO220	52kHz 12V 3A I_{in} 1,4÷40V TO220	1.851	1.680	1.509	1.424	
LM2576T-ADJ	TO220	52kHz 1,23÷37V 3A I_{in} 1,4÷40V TO220	1.543	1.371	1.223	1.143	
LM2576S-5.0 SMD	TO263	52kHz 5V 3A I_{in} 1,4÷40V TO263	1.799	1.633	1.467	1.384	
LM2576S-ADJ SMD	TO263	52kHz 1,23÷37V 3A I_{in} 1,4÷40V TO263	1.773	1.609	1.445	1.364	
LM2576HVT-5.0	TO220	52kHz 5V 3A I_{in} 1,4÷60V TO220	5.672	5.149	4.625	4.363	
LM3578AN	DIP8	1Hz±100kHz I_{out} 0.75A, I_{in} 2÷40V Up/Down/inv.	1.684	1.497	1.335	1.247	
UC3842N	DIP8	PWM Controller, Current Mode, up to 500kHz, 1A	0.434	0.385	0.348	0.304	0.290
UC3843N	DIP8	PWM Controller, Current Mode, up to 500kHz, 1A	0.443	0.393	0.355	0.310	0.295
UC3843D SMD	SO14	PWM Controller, Current Mode, up to 500kHz, 1A	0.443	0.393	0.355	0.310	0.295
UC3844N	DIP8	PWM Controller, Current Mode, up to 500kHz, 1A	0.478	0.424	0.383	0.335	0.319
UC3844D SMD	SO14	PWM Controller, Current Mode, up to 500kHz, 1A	0.511	0.453	0.409	0.358	0.341
UC3844BD SMD	SO8	PWM Controller, Current Mode, up to 500kHz, 1A	0.478	0.424	0.383	0.335	0.319
MC34063AP1/ACN MBR	DIP8	1Hz±100kHz 1,5A up/down/inverting	0.466	0.413	0.373	0.326	0.311
MC34063AP1/ACN DIV	DIP8	1Hz±100kHz 1,5A up/down/inverting	0.186	0.165	0.149	0.130	0.124
MC34063AD SMD MBR	SO8	1Hz±100kHz 1,5A up/down/inverting	0.466	0.413	0.373	0.326	0.311
MC34063AD SMD DIV	SO8	1Hz±100kHz 1,5A up/down/inverting	0.184	0.163	0.147	0.129	0.123
MAX5003CE	SO16	PWM Controller, Voltage Mode, 11÷110V 300kHz	2.643	2.399	2.155	2.033	
MAX5021EUA	uMAX	PWM Controller, Current Mode, 11÷28V 262kHz	1.718	1.527	1.362	1.273	
BD9001F ROHM SMD	SO8	50÷300kHz, 2A, I_{in} 5÷48V, Adj Out 1-Vin, -40÷95°C, 0.69W	1.189	1.057	0.942	0.880	
BD9778F ROHM SMD	SO8	50÷500kHz, 2A, I_{in} 5÷35V, Adj Out 1-Vin, -40÷125°C, 0.69W	1.296	1.152	1.027	0.960	
BD9778HF ROHM SMD	HRP-7	50÷500kHz, 2A, I_{in} 5÷35V, Adj Out 1-Vin, -40÷125°C, 5.5W	1.319	1.172	1.045	0.977	
BD9781HF ROHM SMD	HRP-7	50÷500kHz, 4A, I_{in} 5÷35V, Adj Out 1-Vin, -40÷125°C, 5.5W	2.116	1.881	1.677	1.567	
L5970D SMD	SO8	Step-down, 250kHz, 1A, V_{in} 4.4÷36VDC	2.783	2.474	2.206	2.061	
MCP1650S-E/MS	MSOP8	750kHz Boost Controller, UVLO 2.55V, 2.7÷5.5V	1.323	1.176	1.049	0.980	

DC/DC hybrid modules ROHM

			1-4	5-24	25-99	100+
BP5020A(BP5220) ROHM	SIP9	DC/DC Hybrid In 8÷38V Out 5V/1A	4.147	3.915	3.583	3.318
BP5021A(BP5221) ROHM	SIP9	DC/DC Hybrid In 8÷38V Out 5V/0.5A	3.659	3.454	3.161	2.927
BP5022A(BP5222) ROHM	SIP9	DC/DC Hybrid In 15÷38V Out 12V/0.5A	3.672	3.466	3.172	2.937
BP5233-33A	SIP11	DC/DC Hybrid In 4.5÷5.5V Out 3.3V/3A	7.082	6.686	6.119	5.666
BP5234-33A	SIP11	DC/DC Hybrid In 4.5÷5.5V Out 3.3V/4A	7.168	6.767	6.193	5.735
BP5040(BP5041A5) ROHM	SIP10	DC/DC Hybrid In 224÷358V Out 5V/0.1A	4.719	4.455	4.077	3.775
BP5041A ROHM	SIP10	DC/DC Hybrid In 224÷358V Out 12V/0.1A	3.747	3.537	3.237	2.997
BP5041A15 ROHM	SIP10	DC/DC Hybrid In 224÷358V Out 15V/0.1A	3.747	3.537	3.237	2.997
BP5722-12 ROHM	SIP11	DC/DC Hybrid In 224÷358V Out 12V/1A Insulated	3.581	3.380	3.094	2.865

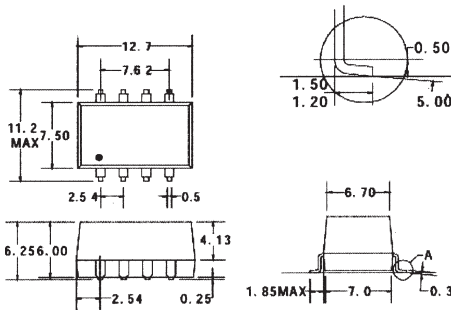


DC/DC converters AIMTEC

			1-4	5-24	25-99	100+
AM1/4L-0505S-NZ	SO8	0.25W/ I_{in} 5/ I_{out} 5VDC SO8 Isol. 1000VDC UL94	5.004	4.750	4.495	4.241
AM1/4L-1205S-NZ	SO8	0.25W/ I_{in} 12/ I_{out} 5VDC SO8 Isol. 1000VDC UL94	5.004	4.750	4.495	4.241
AM1D-0505D-NZ	SIP7	1W/ I_{in} 5/ I_{out} +5/-5VDC SIP7 Isol.1000VDC	4.257	4.041	3.824	3.608
AM1D-0505S-NZ	SIP7	1W/ I_{in} 5/ I_{out} 5VDC SIP7 Isol.1000VDC	4.272	4.055	3.838	3.620

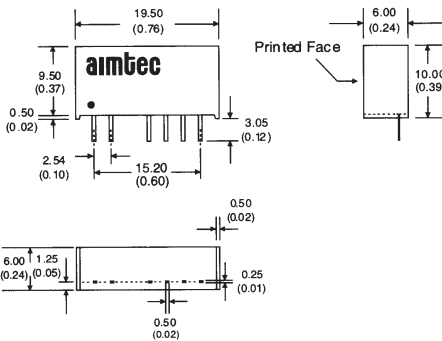
DC/DC converters AIMTEC

			1-4	5-24	25-99	100+
AM1D-0512DH30-NZ	SIP7	1W/In5/Out5VDC SIP7 Isol.1000VDC	6.173	5.859	5.545	5.231
AM1D-1205D-NZ	SIP7	1W/In12/Out+5/-5VDC SIP7 Isol.1000VDC	4.603	4.369	4.135	3.901
AM1D-1205S-NZ	SIP7	1W/In12/Out5VDC SIP7 Isol.1000VDC	4.603	4.369	4.135	3.901
AM1D-1212D-NZ	SIP7	1W/In12/Out+12/-12VDC SIP7 Isol.1000VDC	4.603	4.369	4.135	3.901
AM1D-1212S-NZ	SIP7	1W/In12/Out12VDC SIP7 Isol.1000VDC	4.603	4.369	4.135	3.901
AM1D-1215SH30-NZ	SIP7	1W/In12/Out15VDC SIP7 Isol.3000VDC UL94	6.173	5.859	5.545	5.231
AM1D-1215SZ	SIP7	1W/In12/Out15VDC SIP7 Isol.1000VDC	4.603	4.369	4.135	3.901
AM1D-1224SZ	SIP7	1W/In12/Out24VDC SIP7 Isol.1000VDC	5.405	5.131	4.856	4.581
AM1D-2412DH30-NZ	SIP7	1W/In24/Out+12/-12VDC SIP7 Isol.3000VDC	7.027	6.670	6.312	5.955
AM1L-0503S-NZ	SO8	1W/In5/Out3.3VDC SO8 Isol.1000VDC	5.144	4.882	4.621	4.359
AM1L-0505D-NZ	SO10	1W/In5/Out+5/-5VDC SO10 Isol.1000VDC	5.388	5.114	4.840	4.566
AM1L-0505S-NZ	SO8	1W/In5/Out5VDC SO8 Isol.1000VDC	5.022	4.766	4.511	4.256
AM1L-1203S-NZ	SO8	1W/In12/Out 3.3VDC SO8 Isol.1000VDC	5.022	4.766	4.511	4.256
AM1L-1205S-NZ	SO8	1W/In12/Out 5VDC SO8 Isol.1000VDC	5.022	4.766	4.511	4.256
AM1L-1212D-NZ	SO10	1W/In12/Out+12/-12VDC SO10 Isol.1000VDC	5.388	5.114	4.840	4.566
AM1L-1212S-NZ	SO8	1W/In12/Out12VDC SO8 Isol.1000VDC	5.022	4.766	4.511	4.256
AM1S-0503SZ	SIP4	1W / In5/Out3.3VDC SIP4 Isol.1000VDC	4.080	3.873	3.665	3.458
AM1S-0512S-NZ	SIP4	1W / In5/Out12VDC SIP4 Isol.1000VDC UL94	4.080	3.873	3.665	3.458
AM1S-0524SZ	SIP4	1W / In5/Out12VDC SIP4 Isol.1000VDC UL94	5.022	4.766	4.511	4.256



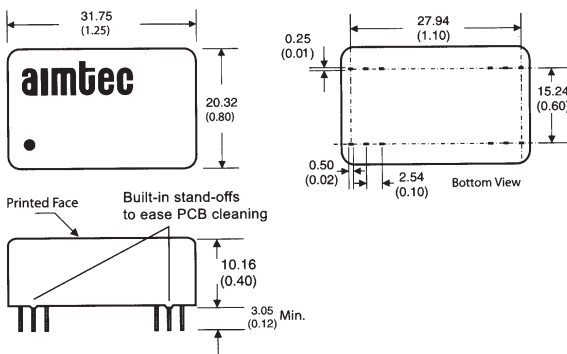
Pin	Single Output
1	-V input
2	+V input
3	N.C.
4	-V output
5	+V output
6	N.C.
7	N.C.
8	N.C.

AM1/4L, AM1/2L, AM1L



AM2D

Pin	1000VDC			3000, 4000, 5200VDC	
	Single	Dual	Dual separate	Single	Dual
1	+V Input	+V Input	+V Input	+V Input	+V Input
2	-V Input	-V Input	-V Input	-V Input	-V Input
4	-V Output	-V Output	+V1 Output	Omitted	Omitted
5	Omitted	Common	-V1 Output	-V Output	-V Output
6	+V Output	+V output	+V2 Output	Omitted	Common
7	Omitted	Omitted	-V2 Output	+V Output	+V Output

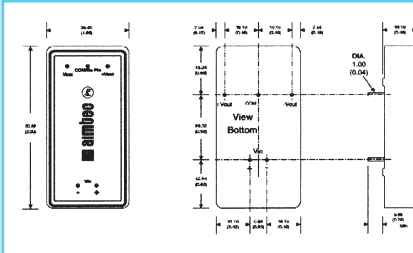


Pin	1500VDC		3500VDC	
	Single	Dual	Single	Dual
1	+V Input	+V Input	Omitted	Omitted
2	N.C.	-V Output	-V Input	-V Input
3	N.C.	Common	-V Input	-V Input
9	Omitted	Omitted	N.C.	Common
10	-V Output	Common	Omitted	Omitted
11	+V Output	+V Output	N.C.	-V Output
12/13	-V Input	-V Input	Omitted	Omitted
14	+V Output	+V Output	+V Output	+V Output
15	-V Output	Common	Omitted	Omitted
16	Omitted	Omitted	-V Output	Common
22	N.C.	Common	+V Input	+V Input
23	N.C.	-V Output	+V Input	+V Input
24	+V Input	+V Input	Omitted	Omitted

AM3T

DC/DC converters AIMTEC

			1-4	5-24	25-99	100+
AM1S-1203SZ	SIP4	1W/In12/Out 3.3VDC SIP4 Isol.1000VDC	4.080	3.873	3.665	3.458
AM1S-1205S-NZ	SIP4	1W/In12/Out 5VDC SIP4 Isol.1000VDC UL94	4.080	3.873	3.665	3.458
AM1S-2405S-NZ	SIP4	1W/In24/Out 5VDC SIP4 Isol.1000VDC UL94	5.022	4.766	4.511	4.256
AM1S-2412S-NZ	SIP4	1W/In24/Out 12VDC SIP4 Isol.1000VDC UL94	5.022	4.766	4.511	4.256
AM1S-0505S-NZ	SIP4	1W/In5/Out 5VDC SIP4 Isol.1000VDC	4.080	3.873	3.665	3.458
AM1S-0505SH30Z	SIP4	1W/In5/Out 5VDC SIP4 Isol.3000VDC	6.922	6.570	6.218	5.866
AM2D-0505S-NZ	SIP7	2W/In5/Out5VDC SIP7 Isol.1000VDC	5.428	5.152	4.876	4.600
AM2D-1212S-NZ	SIP7	2W/In12/Out12VDC SIP7 Isol.1000VDC	5.428	5.152	4.876	4.600
AM2D-1212D-NZ	SIP7	2W/In12/Out+12/-12VDC SIP7 Isol.1000VDC	5.428	5.152	4.876	4.600
AM2D-2424DH30Z	SIP7	2W/In24/Out+24/-24VDC SIP7 Isol.3000VDC	8.143	7.729	7.315	6.901
AM3T-1203SZ	DIP24	3W/In9-18/Out3.3VDC DIL24 Isol.1500VDC	14.965			
AM3TW-2405SH35Z	DIP24	3W/In9-36/Out5VDC DIL24 Isol.3500VDC	20.420			
AM3T-2405SZ	DIP24	3W/In18-36/Out5VDC DIL24 Isol.1500VDC	14.265			
AM3TW-2412SH35Z	DIP24	3W/In9-36/Out12VDC DIL24 Isol.3500VDC	19.837			
AM3TW-2412SZ	DIP24	3W/In9-36/Out12VDC DIL24 Isol.1500VDC	17.182			
AM6T-1205SZ	DIP24	6W/In9-18/Out5VDC DIL24 Isol.1500VDC	16.599			
AM6T-1212SZ	DIP24	6W/In9-18/Out12VDC DIL24 Isol.1500VDC	16.599			
AM6T-1224SZ	DIP24	6W/In9-18/Out24VDC DIL24 Isol.1500VDC	17.109			
AM6T-2403SZ	DIP24	6W/In18-36/Out3.3VDC DIL24 Isol.1500VDC	16.599			
AM15E-2405SZ		15W/In18-36/Out5VDC Isol.1500VDC	27.655			
AM15E-2412SZ		15W/In18-36/Out12VDC Isol.1500VDC	26.240			

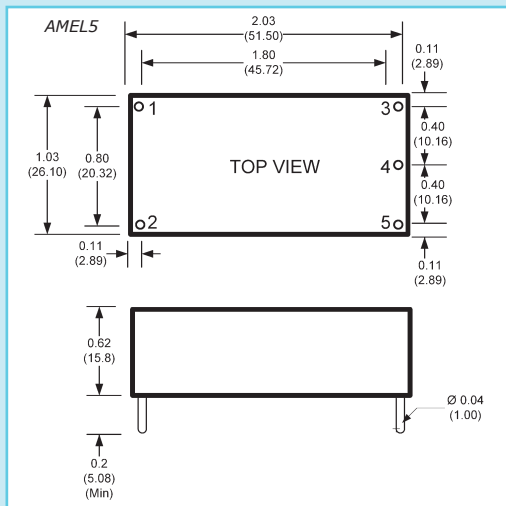


Pin	Single	Dual
1	- V Input	- V Input
2	+ V Input	+ V Input
3	- V Output	- V Output
4	No Pin	Common
5	+ V Output	+ V Output

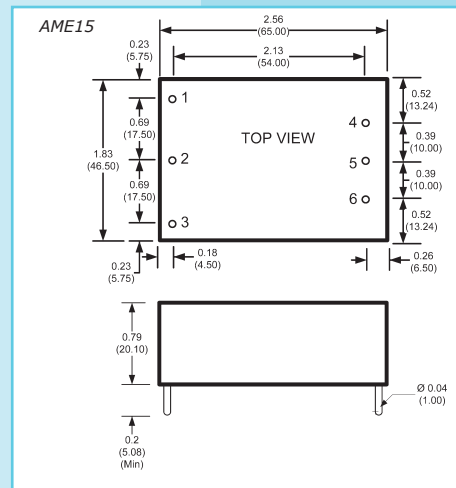
AM15E

AC/DC converters AIMTEC

			1+
AMEL5-3.3SMAZ	5W/In90-264VAC/Out3.3VDC	25.917	
AMEL5-5SMAZ	5W/In90-264VAC/Out5VDC	25.917	
AMEL5-12SMAZ	5W/In90-264VAC/Out12VDC	25.917	
AMEL5-24SMAZ	5W/In90-264VAC/Out24VDC	25.917	



Pin	Single	Dual
1	AC Input (N)	AC Input (N)
2	AC Input (L)	AC Input (L)
3	+V Output	+V Output
4	-V Output	Common
5	No pin	-V Output



Pin	Single	Dual
1	No pin	No pin
2	AC Input (L)	AC Input (L)
3	AC Input (N)	AC Input (N)
4	-V Output	-V Output
5	No pin	Common
6	+V Output	+V Output



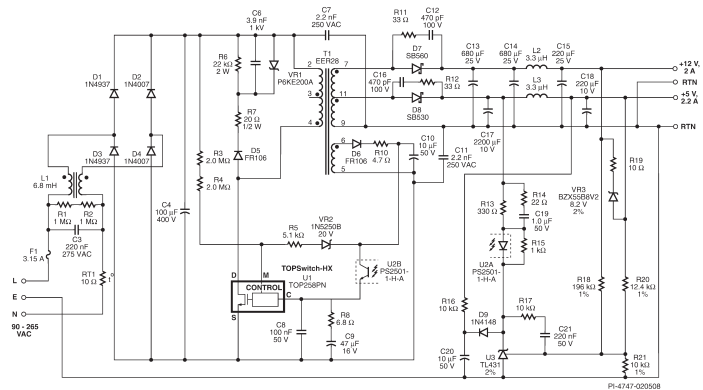
Innovation in power conversion

AC/DC Power Conversion ICs

TOPSwitch®-HX^{NEW} with up to 333W output power:

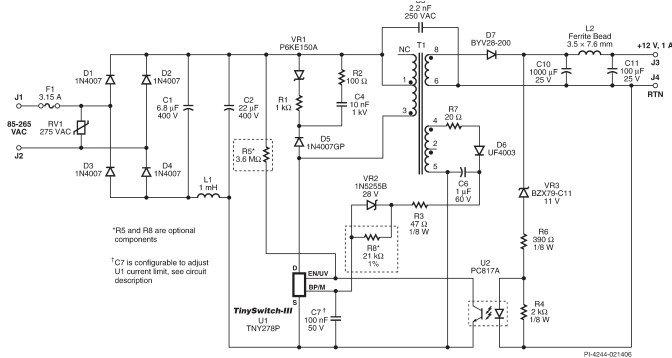
- ◆ Multi-mode operation maximizes efficiency at all loads;
- ◆ No heatsink required up to 35 W (up to 48 W at 230 VAC) using P, G or M packages;
- ◆ Output overvoltage protection (OVP), Line undervoltage (UV) detection, Line overvoltage (OV) shutdown;
- ◆ 132kHz frequency (254Y-258Y and all E packages) reduces transformer and power supply size;
- ◆ Frequency jittering reduces EMI filter cost;
- ◆ Heatsink is connected to SOURCE for low EMI.

TOPSwitch®-HX Product Family



*A High Efficiency, 35 W Dual Output Power Supply using TOP258PN
Application: LCD Monitors*

TinySwitch®-III Product Family



*Low cost, high efficiency, flyback, TNY278P, 12 V, 1 A
Universal Input Power Supply*

TinySwitch®-III - Energy-Efficient Off-Line Switcher with enhanced flexibility and power range up to 36W.

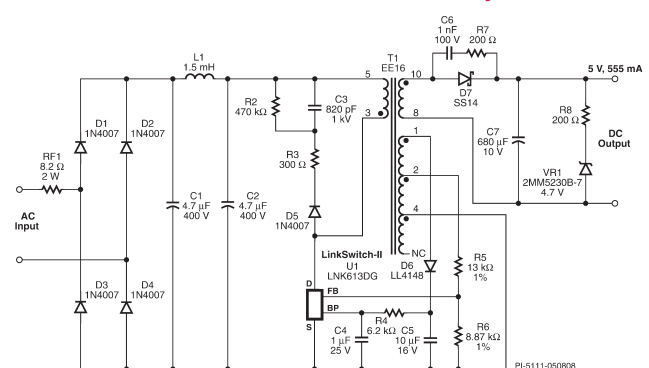
- ◆ Simple ON/OFF control, no loop compensation needed;
- ◆ Selectable current limit through BP/M capacitor value;
- ◆ Easily meets all global energy efficiency regulation;
- ◆ No-load <150 mW at 265 VAC without bias winding, <50 mW with bias winding;
- ◆ Tight I2f parameter tolerance reduces system cost; minimizes maximum overload power, reducing cost of transformer, primary clamp & secondary components;
- ◆ Frequency jittering reduces EMI filter costs;
- ◆ SOURCE pins are electrically quiet for low EMI.

Very low radiation of EMI, very low work tolerances, very low stand by consumption (under 300mW).

LinkSwitch®-II - Dramatically simplifies low power CV/CC charger designs:

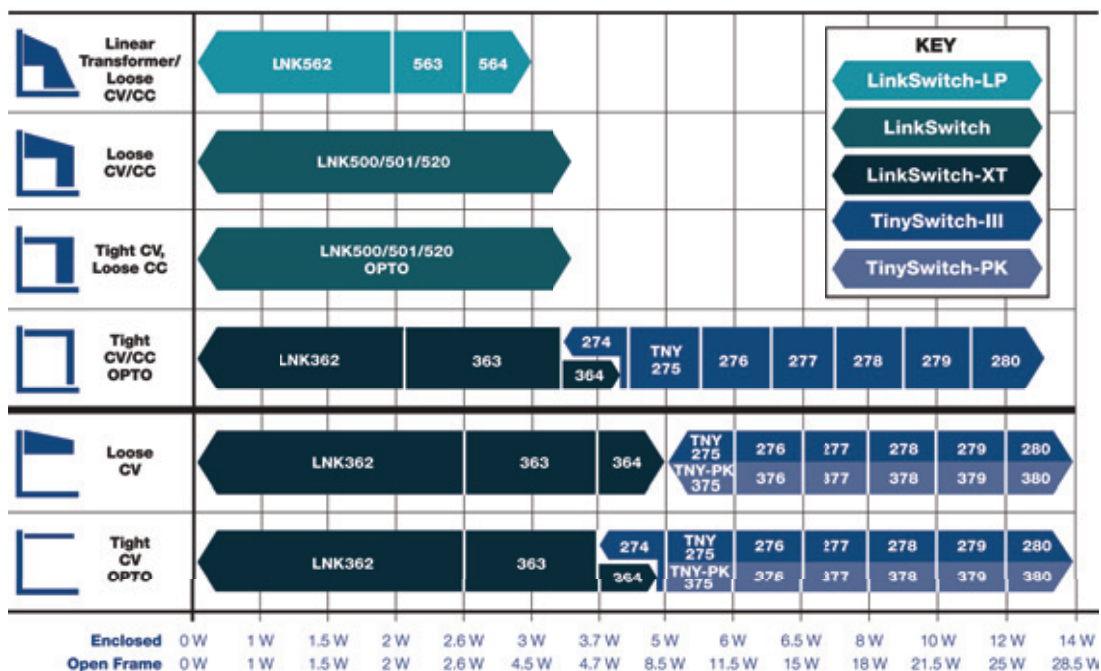
- ◆ Eliminates Optocoupler and CV/CC control circuitry;
- ◆ Compensates for transformer inductance tolerances, input voltage variations and external component temperature variations;
- ◆ Very tight IC parameter tolerances;
- ◆ No-load consumption <200 mW at 230 VAC and 30 mW with optional external bias;
- ◆ On/Off control provides constant efficiency down to very light loads – ideal for CEC and ENERGY STAR 2.0 regulations;
- ◆ Frequency jittering greatly reduces EMI filter cost.

LinkSwitch®-II Product Family



*Energy Efficient USB Charger Power Supply
(74% Average Efficiency, <40 mW No-load Input Power)*

Low Power Products



KEY

- ▶ LinkSwitch-LP
- ▶ LinkSwitch
- ▶ LinkSwitch-XT
- ▶ TinySwitch-III
- ▶ TinySwitch-PK

PI Expert™ Suite v.7+ simplifies the design of off-line power supplies and DC-DC converters based on products from Power Integrations. The software suite includes:



PI Expert - an interactive program that takes a user's power supply specifications and automatically determines the critical components (including transformer specifications) needed to generate a working switch mode power supply. Optimization choices for cost or efficiency are included to deliver designs that meet specific needs. The program reduces design time from days to minutes.

PI XIs Designer - a simplified spreadsheet approach to power supply design for advanced users and those who prefer a spreadsheet interface, along with support for recently introduced products not yet included in PI Expert.

PIViewer - a program for viewing design files created with older versions of PI Expert.

Kaschke Smartpower flyback transformers

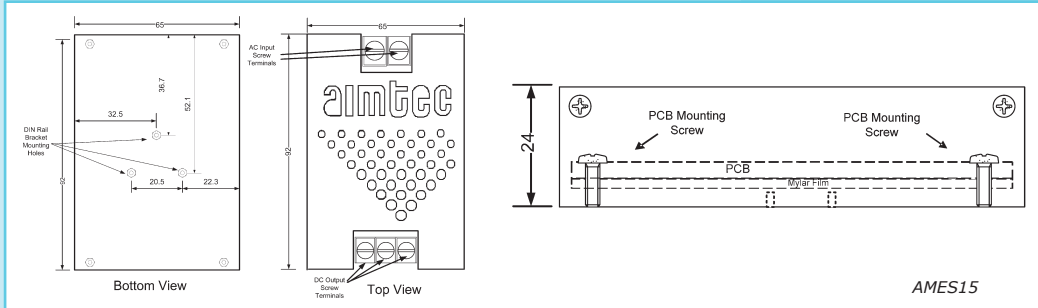
Designed for use with Power Integrations ICs, Kaschke Smartpower flyback transformers offer a new solution for easy design and short time to the market. Kaschke Smartpower is a range of flyback transformers, suitable for use with TinySwitch®, TopSwitch®, LinkSwitch® and DPASwitch®. They are 100% tested and designed to meet EN and VDE approvals and are ready for use with a range of standard output voltages.



AC/DC converters AIMTEC

1+

AME15-5SMAZ	15W/In90-264VAC/Out5VDC	28.961
AME15-12SMAZ	15W/In90-264VAC/Out12VDC	28.961
AMES15-12SMAZ	5W/In90-264VAC/Out12VDC, Screw Terminals	29.840
AMES15-24SMAZ	5W/In90-264VAC/Out24VDC, Screw Terminals	29.840



AC/DC analog ICs for SMPS - POWER INTEGRATIONS

1-4 5-24 25-99 100+

TNY254PN	DIP8	5W 0.255A 700V/2pF 44kHz 31 Ohm@25mA	1.211	1.099	1.006	0.931
TNY264PN	DIP8	9W 0.25A 700V/1pF 132kHz 28 Ohm@25mA	1.011	0.917	0.840	0.777
TNY266PN	DIP8	15W 0.35A 700V/2pF 132kHz 14 Ohm@35mA	1.134	1.030	0.943	0.873
TNY267PN	DIP8	19W 0.45A 700V/3.5pF 132kHz 7.8 Ohm@45mA	1.300	1.180	1.080	1.000
TNY268GN	SMD8	23W 0.55A 700V/5.5pF 132kHz 5.2 Ohm@55mA	1.485	1.348	1.234	1.142
TNY268PN	DIP8	23W 0.55A 700V/5.5pF 132kHz 5.2 Ohm@55mA	1.423	1.292	1.182	1.095
TNY275PN	DIP8	15W 0.275A 700V/1.5pF 132kHz 19 Ohm@28mA	0.969	0.880	0.805	0.746
TNY277PN	DIP8	23.5W 0.45A 700V/3.5pF 132kHz 7.8 Ohm@45mA	1.134	1.030	0.943	0.873
TNY278PN	DIP8	28W 0.55A 700V/5.5pF 132kHz 5.2 Ohm@55mA	1.300	1.180	1.080	1.000
TNY280PN	DIP8	36.5W 0.75A 700V/11pF 132kHz 2.6 Ohm@75mA	1.712	1.554	1.422	1.317
TOP201YN	TO220	45W 1.17A 700V/7.5pF 100kHz 7.8 Ohm@0.1A	3.300	2.996	2.742	2.539
TOP209PN	DIP8	4W 0.23A 700V/2pF 70kHz 31.2 Ohm@25mA	1.753	1.591	1.457	1.349
TOP210PN	DIP8	8W 0.3A 700V/2pF 100kHz 31.2 Ohm@25mA	2.083	1.891	1.731	1.603
TOP221PN	DIP8	9W 0.25A 700V/2pF 100kHz 31.2 Ohm@25mA	1.939	1.760	1.611	1.491
TOP224PN	DIP8	30W 1.5A 700V/11pF 100kHz 5.2 Ohm@0.15A	2.946	2.674	2.448	2.266
TOP224YN	TO220	75W 1.5A 700V/11pF 100kHz 5.2 Ohm@0.15A	3.309	3.004	2.749	2.546
TOP225YN	TO220	100W 2A 700V/15pF 100kHz 3.9 Ohm@0.2A	6.322	3.297	3.017	2.794
TOP226YN	TO220	125W 2.5A 700V/18pF 100kHz 3.1 Ohm@0.25A	3.995	3.627	3.319	3.073
TOP233YN	TO220-7	50W 1A 700V/6.8pF 132kHz 7.8 Ohm@0.1A	2.558	2.322	2.125	1.968
TOP244PN	DIP8	28W 1A 700V/5.5pF 132kHz 5.2 Ohm@0.15A	2.434	2.209	2.022	1.872
TOP244YN	TO220-7	65W 1.35A 700V/5.5pF 132kHz 5.2 Ohm@0.15A	2.702	2.453	2.245	2.079
TOP245YN	TO220-7	85W 1.8A 700V/7.5pF 132kHz 3.9 Ohm@0.2A	2.970	2.696	2.468	2.285
TOP246YN	TO220-7	125W 2.7A 700V/11pF 132kHz 2.6 Ohm@0.3A	3.218	2.921	2.673	2.475
TOP247YN	TO220-7	165W 3.6A 700V/15pF 132kHz 1.95 Ohm@0.4A	3.486	3.164	2.896	2.682
TOP249YN	TO220-7	250W 5.4A 700V/22pF 132kHz 1.3 Ohm@0.6A	4.002	3.632	3.324	3.078
TOP250YN	TO220-7	290W 6.3A 700V/26pF 132kHz 1.1 Ohm@0.7A	4.517	4.100	3.753	3.475
TOP254YN	TO220-7	62W 1.3A 700V/5.1pF 132kHz 5.4 Ohm@0.15A	2.287	2.076	1.900	1.759
TOP256YN	TO220-7	119W 2.55A 700V/9.8pF 132kHz 2.8 Ohm@0.3A	2.690	2.442	2.235	2.070
TOP258YN	TO220-7	195W 4.3A 700V/16pF 132kHz 1.7 Ohm@0.5A	3.229	2.931	2.682	2.484
TOP258GN	SMD8	48W 1.65A 700V/16pF 132kHz 1.7 Ohm@0.5A	2.556	2.320	2.123	1.966
PKS603PN	TO220-7	32W 0.81A 700V/1pF 277kHz 7.8 Ohm@81mA	1.172	1.064	0.974	0.901
PKS604YN	TO220-7	56W 1.45A 700V/1.5pF 277kHz 5.2 Ohm@0.15A	1.674	1.520	1.391	1.288
PKS606YN	TO220-7	117W 2.8A 700V/3pF 277kHz 2.6 Ohm@0.3A	2.009	1.823	1.669	1.545
LNK302PN	DIP8	80mA CCM 0.136A 700V 66kHz 48 Ohm@13mA	0.737	0.669	0.612	0.567
LNK304PN	DIP8	0.17A CCM 0.257A 700V 66kHz 24 Ohm@25mA	0.824	0.748	0.684	0.634
LNK306PN	DIP8	0.36A CCM 0.482A 700V 66kHz 7 Ohm@45mA	1.149	1.043	0.954	0.884
LNK362PN	DIP8	2.8W 0.14A 700V/0.5pF 132kHz 48 Ohm@14mA	0.780	0.708	0.648	0.600
LNK363PN	DIP8	7.5W 0.21A 700V/0.8pF 132kHz 29 Ohm@21mA	0.845	0.767	0.702	0.650
LNK364PN	DIP8	9W 0.25A 700V/1pF 132kHz 24 Ohm@25mA	0.889	0.807	0.738	0.684
LNK501PN	DIP8	5.5W 0.254A 700V 42kHz 280hm@25mA	0.975	0.885	0.810	0.750

DC/DC analog ICs for SMPS - POWER INTEGRATIONS

1-4 5-24 25-99 100+

DPA423R-TL	TO220-7	DC/DC 18W FORWARD 1.25A 220V/13pF 400kHz	2.796	2.538	2.323	2.151
DPA425R-TL	TO220-7	DC/DC 70W FORWARD 5A 220V/51pF 400kHz	4.248	3.856	3.529	3.268

Development Tools for POWER INTEGRATIONS products

1+

DAK-34	TOPSw-GX Demo Kit, in:85-265VAC, out:12VDC/2.5A	34.425
DAK-89	LinkSw-XT Demo Kit, in:85-265VAC,out:6.2VDC/0.322A	21.590
DAK-93	Peak-Sw Demo Kit, in:90-265VAC, out:30VDC/1.07/2.7A	103.412
RDK-91	TinySw-III Demo Kit, in:85-265VAC, out:12VDC/1A	107.792
RDK-131	LinkSw-TN LED Halogen Bulb Kit in:85-265VAC, out:10V/300mA	103.481
RDK-142	TOPSw-HX Demo kit, in:90-265VAC, out:12VDC/2A	107.792
RDK-160	LinkSw-II Demo Kit, in:85-265VAC, out:5VDC/1A,8VDC/0.3A	107.792

DC-DC Charge Pumps			1-4	5-24	25-99	100+
MCP1252-ADJI/MS	MSOP8	In 2.0-5.5V; Out 1.5-5.5V 0.15A 650kHz	1.696	1.508	1.382	1.257
MCP1253-33X501/MS	MSOP8	In 2.1-5.5V; Out 3.3V or 5.5V 0.15A 1MHz	1.696	1.508	1.382	1.257
TC1121CPA	DIP8	In 2.4-5.5V, 100uA max; Vout=-Vin/ 2Vin, 100mA; 10kHz osc	1.283	1.140	1.045	0.950
TC1121COA	S08	In 2.4-5.5V, 100uA max; Vout=-Vin/2Vin, 100mA; 10kHz osc	1.256	1.116	1.023	0.930
TC1121EOA	S08	In 2.4-5.5V, 100uA max; Vout=-Vin/2Vin, 100mA; 10kHz osc	1.364	1.212	1.111	1.010
TC1240AECSTR	SOT23A6	In 2.5-5.5V, 900uA max; Vout=2Vin, 40mA; 160kHz osc	0.851	0.756	0.693	0.630
TC7660COA	S08	In 1.5-10V, 180uA max; Vout=-Vin/2Vin, 20mA; 10kHz osc	0.824	0.732	0.671	0.610
TC7660HCOA	NS08	In 1.5-10V, 1mA max; Vout=-Vin/2Vin, 20mA; 120kHz osc	1.026	0.912	0.836	0.760
TC7662BCPA	DIP8	In 1.5-15V, 180uA max; Vout=-Vin/2Vin, 20mA; 35kHz osc	1.944	1.728	1.584	1.440
TC7662BCOA	NS08	In 1.5-15V, 180uA max; Vout=-Vin/2Vin, 20mA; 35kHz osc	1.944	1.728	1.584	1.440
TC7662BEPA	DIP8	In 1.5-15V, 180uA max; Vout=-Vin/2Vin, 20mA; 35kHz osc	2.268	2.016	1.848	1.680
TC7662BEOA	NS08	In 1.5-15V, 180uA max; Vout=-Vin/2Vin, 20mA; 35kHz osc	2.268	2.016	1.848	1.680

ADC, S/H, V/F			1-4	5-24	25-99	100+
LM331N	DIP8	VCO 1Hz to 100KHz, 0,01%lin	2.090	1.858	1.656	1.548
LF398N	DIP8	S/H, 0,002%, ±5-18V, <10usec acquisition time	1.040	0.924	0.824	0.770
ICL7106CPL	DIP40	ADC 3 1/2 LCD 333 mS	1.752	1.557	1.388	1.297
ICL7107CPL	DIP40	ADC 3 1/2 LED 333 mS	2.407	2.140	1.908	1.783
ICL7107CPL DIV	DIP40	ADC 3 1/2 LED 333 mS	1.920	1.706	1.521	1.422
MCP3001-I/P	DIP8	10-bit ADC, SPI, single channel 200ksp@5V	1.701	1.361	1.298	1.260
MCP3001-I/SN	NS08	10-bit ADC, SPI, single channel 200ksp@5V	1.701	1.361	1.298	1.260
MCP3002-I/SN	NS08	10-bit ADC, SPI, dual channel 200ksp@5V	1.823	1.458	1.391	1.350
MCP3002-I/P	DIP8	10-bit ADC, SPI, dual channel 200ksp@5V	1.823	1.458	1.391	1.350
MCP3008-I/P	DIP16	10-bit ADC, SPI, 8-channel 200ksp@5V	2.241	1.793	1.710	1.660
MCP3008-I/SL	NS016	10-bit ADC, SPI, 8-channel 200ksp@5V	2.241	1.793	1.710	1.660
MCP3201-BI/P	DIP8	12 bit ADC, SPI, 1 ch 1LSB DNL 1LSB INL 100ksp@5V	2.714	2.171	2.070	2.010
MCP3201-BI/SN	NS08	12 bit ADC, SPI, 1 ch 1LSB DNL 1LSB INL 100ksp@5V	2.714	2.171	2.070	2.010
MCP3201-CI/SN	NS08	12 bit ADC, SPI, 1 ch 1LSB DNL 2LSB INL 100ksp@5V	2.336	1.868	1.782	1.730
MCP3202-BI/P	DIP8	12 bit ADC, SPI, 2 ch 1LSB DNL 1LSB INL 100ksp@5V	2.957	2.365	2.256	2.190
MCP3208-BI/P	DIP16	12 bit ADC, SPI, 8 ch 1LSB DNL 1LSB INL 100ksp@5V	4.455	3.564	3.399	3.300
MCP3208-BI/SL	NS016	12 bit ADC, SPI, 8 ch 1LSB DNL 1LSB INL 100ksp@5V	4.455	3.564	3.399	3.300
MCP3301-BI/P	DIP8	13-bit ADC, SPI, 1ch, diff, 1LSB DNL , 1LSB INL 100ksp@5V	2.660	2.128	2.029	1.970
MCP3301-BI/SN	NS08	13-bit ADC, SPI, 1ch, diff, 1LSB DNL , 1LSB INL 100ksp@5V	2.660	2.128	2.029	1.970
MCP3301-CI/P	DIP8	13-bit ADC, SPI, 1ch, diff, 1LSB DNL , 2LSB INL 100ksp@5V	2.322	1.858	1.772	1.720
MCP3301-CI/SN	NS08	13-bit ADC, SPI, 1ch, diff, 1LSB DNL , 2LSB INL 100ksp@5V	2.322	1.858	1.772	1.720
MCP3302-BI/P	DIP14	13-bit ADC, SPI, 2ch, diff, 1LSB DNL , 1LSB INL 100ksp@5V	4.010	3.208	3.059	2.970
MCP3302-BI/SL	NS014	13-bit ADC, SPI, 2ch, diff, 1LSB DNL , 1LSB INL 100ksp@5V	4.010	3.208	3.059	2.970
MCP3302-CI/P	DIP14	13-bit ADC, SPI, 2ch, diff, 1LSB DNL , 2LSB INL 100ksp@5V	3.200	2.560	2.441	2.370
MCP3302-CI/SL	NS014	13-bit ADC, SPI, 2ch, diff, 1LSB DNL , 2LSB INL 100ksp@5V	3.200	2.560	2.441	2.370
MCP3304-BI/P	DIP16	13-bit ADC, SPI, 4ch, diff, 1LSB DNL , 1LSB INL 100ksp@5V	4.428	3.542	3.378	3.280
MCP3304-BI/SL	NS016	13-bit ADC, SPI, 4ch, diff, 1LSB DNL , 1LSB INL 100ksp@5V	4.428	3.542	3.378	3.280
MCP3304-CI/P	DIP16	13-bit ADC, SPI, 4ch, diff, 1LSB DNL , 2LSB INL 100ksp@5V	3.537	2.830	2.699	2.620
MCP3304-CI/SL	NS016	13-bit ADC, SPI, 4ch, diff, 1LSB DNL , 2LSB INL 100ksp@5V	3.537	2.830	2.699	2.620

DNL-Differential Nonlinearity **INL**-Integral Nonlinearity

DAC			1-4	5-24	25-99	100+
MAX518BCPA	DIP8	Dual 8-bit DAC, 5V, 2-wire Serial, R2R out	4.213	3.820	3.713	3.570
MAX521BCWG	WSO24	Octal 8-Bit DAC, 2-Wire Serial, R2R out	10.005	9.073	8.818	8.479
MAX548AEP	DIP8	Dual 8-bit voltage-output DAC, 2.5±5.5V	4.830	4.379	4.257	4.093
TC1320EOA	S08	8-Bit DAC, SMBus / I2C, 2.7±5.5V	1.514	1.374	1.234	1.164
TC1321EOA	S08	10-Bit DAC, SMBus / I2C, 2.7±5.5V	1.946	1.766	1.587	1.497

Interface ICs			1-4	5-24	25-99	100+
AM26LS31	DIP16	Quad RS422 transmitter, 5V	0.411	0.373	0.317	0.294
AM26LS32	DIP16	Quad RS422 receiver, 5V	0.411	0.373	0.317	0.294
AM26LS32 SMD	SO16	Quad RS422 receiver, 5V	0.408	0.370	0.315	0.292
MC1488P(SN75188)	DIP14	Quad RS232 transmitter, ±9V	0.227	0.206	0.175	0.162
MC1488D(SN75188D)	SO14	Quad RS232 transmitter, ±9V	0.235	0.213	0.181	0.168
MC1489P(SN75189)	DIP14	Quad RS232 receiver, 5V	0.251	0.228	0.194	0.179
MC1489AD(SN75189AD)	SO14	Quad RS232 receiver, 5V	0.274	0.249	0.212	0.196
MAX232N	DIP16	RS232, 5V, 2 Tx, 2 Rx, 200kpbs	0.393	0.357	0.303	0.281
MAX232D SMD	SO16	RS232, 5V, 2 Tx, 2 Rx, 200kpbs	0.349	0.317	0.269	0.250
MAX232DW SMD	WSO16	RS232, 5V, 2 Tx, 2 Rx, 200kpbs	0.378	0.343	0.292	0.270
MAX233CPP	DIP20	RS232, 5V, 2 Tx, 2 Rx, 120kpbs, internal cap.	5.441	5.046	4.695	4.388
MAX236CNG	DIP24	RS232, 5V, 4 Tx, 3 Rx, 120kpbs, shutdown	5.523	5.122	4.766	4.454
MAX2323CPE	DIP16	RS232, 3-5.5V, 2 Tx, 2 Rx, 120kpbs	3.061	2.839	2.641	2.468
MAX2323CSE	SO16	RS232, 3-5.5V, 2 Tx, 2 Rx, 120kpbs	3.061	2.839	2.641	2.468
MAX2323CPP	DIP20	RS232, 3-5.5V, 2 Tx, 2 Rx, 120kpbs, shutdown	3.061	2.839	2.641	2.468
MAX2322CWN	WSO18	RS232, 3-5.5V, 2 Tx, 2 Rx, 120kpbs, shutdown	3.061	2.839	2.641	2.468
MAX202EEUE	TSS16	RS232, 5V, 2Tx, 2Rx, 120kpbs, ESD-protected	3.632	3.368	3.134	2.929
MAX3085CPA	DIP8	RS485/RS422, 5V, 1Tx, 1Rx, half-duplex, 500kpbs	2.192	2.033	1.891	1.768
MAX3160CAP	SSOP20	RS232 2Tx/2Rx, RS485/RS422 1Tx/1Rx, 3-5.5V, 1Mbps	9.863	9.147	8.511	7.954
MAX3237CAI	SSOP28	RS232, 3-5.5V, 5 Tx, 3 Rx, 1000kpbs	5.490	5.092	4.738	4.428



USB interface integrated circuits

FT232RL SMD - USB-UART Transceiver with integrated EEPROM and oscillator



- Single chip USB-to-serial interface;
- Fully integrated USB protocol;
- On-chip 1024 bit EEPROM;
- Integrated oscillator 12MHz;
- Unique identification number for every chip - **FTDChip-ID™**;
- VCP & D2XX drivers for all popular OS from FTDI;
- Synchronous and asynchronous „Bit bang” modes;
- Compact lead free SSOP28 and QFN32 packages.

FT232RL Parameters	
Power supply, VCCIO	1.8 ÷ 5.25V
Power supply, VCC	3.3 ÷ 5.25V
Operating temperature	-40 ÷ 85°C
Power consumption	15mA
EEPROM	1024bit
Read/write cycles	100 000
Data retention	15 years
Oscillator frequency	12MHz
Maximum power dissipation	500mW

US232R-10-BST - USB-RS232 adapter cable

- Based on FT232RQ;
- Driver CD with Microsoft WHQL certified VCP driver for Windows XP, drivers for Apple Mac, Linux and other Windows versions;
- US232R-10 IS ROHS, CE AND FCC compatible;
- Option with longer cable available (1m), PN: US232R-100.

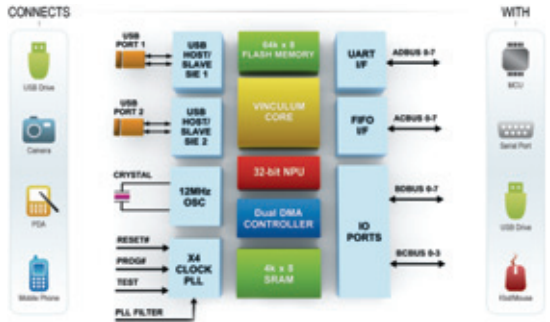


Vinculum VNC1L-1A - USB Host Controller

The VNC1L USB Host Controller IC has two USB ports, which can be individually configured by firmware as Host or Slave ports. VNC1L supports Mass Storage, Printer and HID classes.

FEATURES:

- 8/32 bit V-MCU Core;
- Dual DMA controllers for hardware acceleration;
- 64k Embedded Flash Program Memory;
- 4k internal Data SRAM;
- 2 x USB 2.0 Slow/Full speed Host/Slave Ports;
- UART, SPI and Parallel FIFO interfaces;
- PS2 legacy Keyboard and Mouse Interfaces;
- Up to 28 GPIO pins depending on configuration;
- 3.3V operation with 5V safe inputs;
- Low power operation (25mA running/2mA standby);
- Inbuilt FTDI firmware easily updated in the field;
- LQFP-48 RoHS compliant package.



Development modules

UM232R - Dev. module for FT232R

The UM232R module is a USB-UART (TTL) development module for the FT232R IC device, with PCB designed to fit a DIP24 socket.

It can be configured as either USB bus-powered or self-powered with 5V or 3V. Full hardware handshaking is supported and the UM232R can communicate at up to 3MBaud at TTL/CMOS levels.



VDIP1 - Dev. module for Vinculum VNC1L-1A

The VDIP1 module is an MCU to USB host controller development module for the VNC1L device, supplied on a PCB designed to fit a DIP24 socket and provides access to all UART, SPI and FIFO interface pins of the VNC1L device.



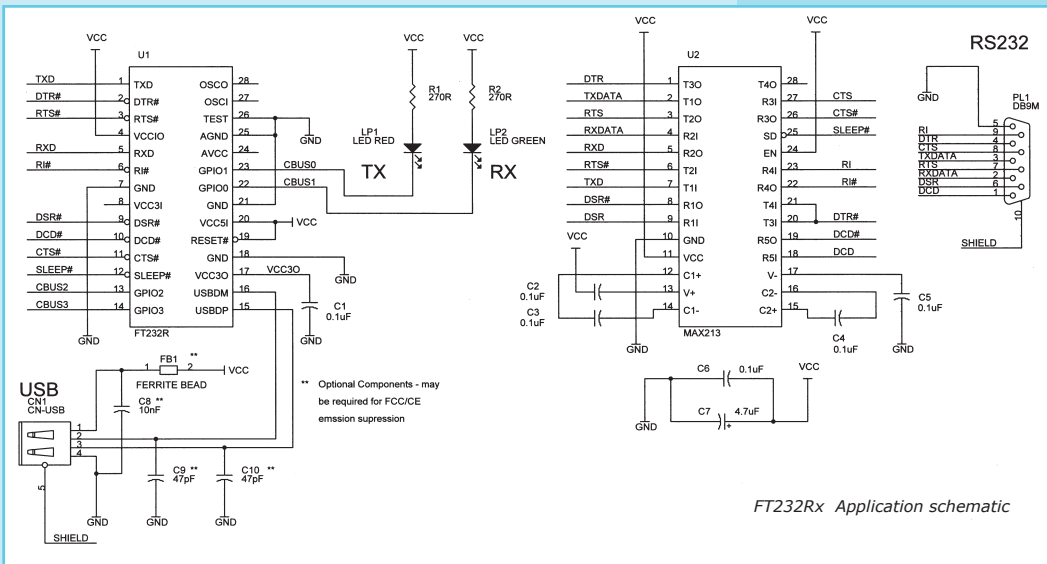
Ideal for rapid prototyping and development, these modules are also suitable for incorporation into low/medium volume finished product designs.

Interface ICs

			1-4	5-24	25-99	100+
MAX3241CWI	SO28	RS232, 3-5.5V, 3 Tx, 5 Rx, 120kbps,micropower	5.498	5.099	4.744	4.434
MAX491CPD	DIP14	RS485/RS422,5V,1Tx,1Rx,full-duplex,2500kbps	2.059	1.910	1.777	1.661
ST232CN	DIP16	RS232 driver/receiver 5V; C=0.1uF	0.571	0.507	0.452	0.423
ST232CD SMD	SO16	RS232 driver/receiver 5V; C=0.1uF	0.435	0.387	0.345	0.322
75176	DIP8	RS485/RS422 Transceiver	0.282	0.250	0.223	0.209
75176 SMD	SO8	RS485/RS422 Transceiver	0.282	0.250	0.223	0.209
MAX485CSA	SO8	RS485/RS422,5V,1Tx,1Rx, half-duplex,2500kbps	1.215	1.080	0.963	0.900
SP485EN	SO8	RS485/RS422,5V,1Tx,1Rx, half-duplex,5Mbps	0.902	0.802	0.715	0.668
SP485CS	DIP8	RS485/RS422,5V,1Tx,1Rx, half-duplex,5Mbps	0.902	0.802	0.715	0.668
MCS7780CS	SSOP28	USB1.1 to IRDA	7.306	6.182	5.901	5.620
MCS7703CS	SSOP28	USB1.1 to UART	4.037	3.416	3.260	3.105
MCS7720CQ	QFP48	USB1.1 to 2xUART	5.616	4.752	4.536	4.320
MCS9835CV	QFP128	PCI Dual UART with Printer Port	7.547	6.386	6.095	5.805

Interface ICs FTDI

			1-4	5-24	25-99	100+
FT232BL SMD	LQFP32	USB-UART transceiver (RS232, RS485, RS422)	4.685	3.964	3.784	3.604
FT232BQ SMD	QFN32	USB-UART transceiver (RS232, RS485, RS422)	5.836	4.938	4.713	4.489
FT232RL SMD	SSOP28	USB-UART transceiver with integrated EEPROM and oscillator	4.091	3.536	3.302	2.922
FT232L SMD	LQFP48	USB-2UART transceiver (RS232, RS485, RS422)	7.299	6.176	5.895	5.615
FT245BL SMD	LQFP32	USB-PARALLEL PORT transceiver	4.685	3.964	3.784	3.604
FT245BQ SMD	QFN32	USB-PARALLEL PORT transceiver	5.836	4.938	4.713	4.489
FT245RL SMD	SSOP28	USB-PARALLEL PORT transceiver	4.188	3.544	3.383	3.222
FT8U100AX SMD	PQFP100	USB-Hub Controller, 3.3V	6.968	5.896	5.628	5.360
VNC1L-1A	LQFP48	USB Host Controller, 8/32bit V-MCU, 64KB Flash, 4KB SRAM	10.729			
VDIP1	DIP24	USB-VDIP1 - Prototyping Module for VNC1L-1A USB controller	27.068			
UM232R		Development module for FT232R	22.110			
US232R-10-BST		USB to RS232 Converter with FT232R, 10 cm cable, driver CD	27.430			

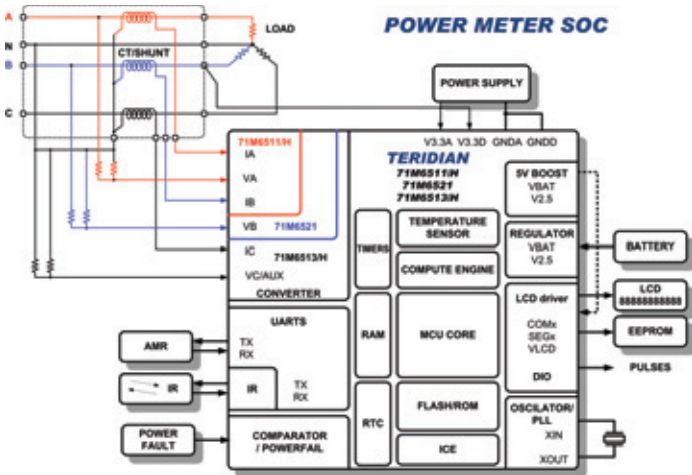


CAN/LIN Controllers and Transceivers MICROCHIP

			1-4	5-24	25-99	100+
MCP2510-I/P	DIP18	CAN Controller V2.0A/B, 1Mb/s, SPI, 2.7-5.5V	3.173	2.538	2.421	2.350
MCP2551-I/P	DIP8	CAN Transceiver 1Mb/s, 4.5-5.5V	1.121	0.896	0.855	0.830
MCP2551-I/SN	NSO8	CAN Transceiver 1Mb/s, 4.5-5.5V	1.121	0.896	0.855	0.830
MCP2515-I/P	DIP18	CAN Controller V2.0B, 1 Mb/s, SPI, 2.7-5.5V	2.309	1.847	1.761	1.710
MCP2515-I/SO	SO18	CAN Controller V2.0B, 1 Mb/s, SPI, 2.7-5.5V	2.309	1.847	1.761	1.710
MCP201-I/P	DIP8	LIN Transceiver with VREG, 20kbaud, 6.0-18.0V	1.580	1.264	1.205	1.170

Ethernet Controllers MICROCHIP

			1-4	5-24	25-99	100+
ENC28J60/SO	SO28	Eth. Controller, 8KB RAM, MAC&PHY, SPI, 3.3V	3.794	3.035	2.894	2.810
ENC28J60/SP	S DIP28	Eth. Controller, 8KB RAM, MAC&PHY, SPI, 3.3V	4.064	3.251	3.100	3.010
ENC28J60/ML	QFN20	Eth. Controller, 8KB RAM, MAC&PHY, SPI, 3.3V	4.226	3.380	3.224	3.130
ENC28J60/SS	SSOP28	Eth. Controller, 8KB RAM, MAC&PHY, SPI, 3.3V	3.740	2.992	2.853	2.770



**Power
Measurement,
Metering & Control**

Teridian Semiconductor's Power Meter ICs offer ideal solution for developing low cost, intelligent utility meters for residential and industrial applications.

Power Meter ICs							
Product	Description	AFE	Accuracy	MCU/FLASH (ROM)	Application	RTC	LCD driver
71M6511/H	Single-Phase	Yes	0.5% / 0.1%	80515/64kB	R, P	Yes	128px
71M6515H	Polyphase	Yes	0.1%	No	I, C	Yes	No
71M6521	Single-Phase	Yes	0.4%	80515/8/16/32kB	R, P	Yes	152px
71M6523	3 Phase	No	0.5%	80515/32kB	R	Yes	152px
71M6513/H	Polyphase	Yes	0.5% / 0.1%	80515/64kB	I, C, R, P	Yes	168px

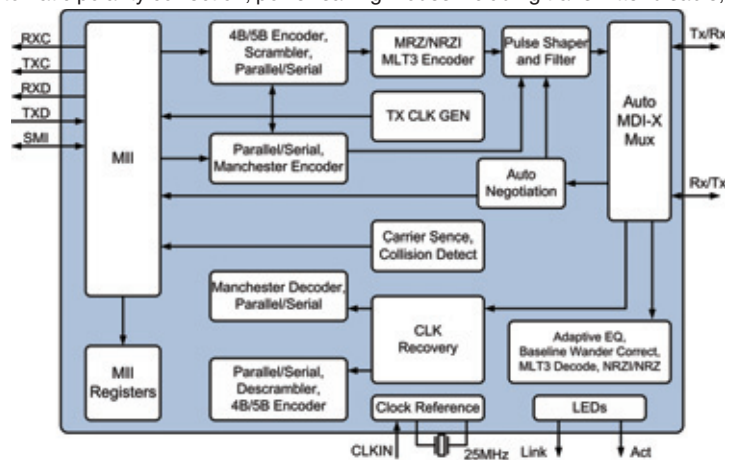
R – Residential meters, P – Precision measurement, C – Commercial meters, I – Industrial meters

71M6403 - Programmable Electronic Trip Unit (ETU) system-on-chip device for air circuit breakers (ACB), molded case circuit breakers (MCCB) and other types of intelligent switchgear.

10/100 Ethernet PHY transceivers

The Smallest Ethernet 10/100 PHY transceivers available in a 5x5mm QFN - 78Q2123 and 78Q2133

- ◆ 10BASE-T/100BASE-TX IEEE-802.3 compliant TX and RX functions requires only a dual 1:1 isolation transformer interface to the line. Full/Half duplex, automatic polarity correction, power-saving modes including transmitter disable, register-programmable transmit amplitudes, Interrupt and LEDs;
- ◆ Integrated MII, 10BASE-T/100BASE-TX ENDEC, 100BASE-TX scrambler/descrambler, full-featured auto-negotiation function and automatic MDI/MDI-X cross over correction;
- ◆ Small Package: 32-QFN
- ◆ Low Power (~290mW);
- ◆ Single 3.3 V ± 0.3V Supply;
- ◆ 78Q2123 rated for 0°C to 70°C;
- ◆ 78Q2133 rated for -40°C to 85°C.



Teridian Semiconductor also offers 8Q2120C Ethernet PHY in 64-Pin LQFP package.

Smart Card Terminal Controllers

Complete 8-bit system-on-chip for low-cost smart card terminals with 80C52 controller core with a standard interfaces like USB, UART and I2C.

Development boards, programmers and software libraries are available from **Teridian Semiconductor** for quick and easy designing.

A wide range of non MCU based smart card interface ICs are available from **Teridian Semiconductor** by **73S80xxx** series.

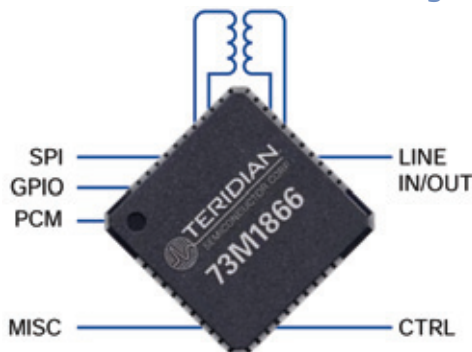
For more information about Teridian Semiconductor's products, please contact Comet Electronics.



Product	Specifications	MCU/FLASH	Interface	Package
73S1209F	PC/SC, ISO7816, EMV4.1	80515/32KB	UART	QFN68
73S1210F	PC/SC, ISO7816, EMV4.1	80515/32KB	UART	QFN68
73S1217F	ISO-7816 / EMV 4.1 ICC	80515/64KB	UART, USB	QFN68
73S1215F	ISO7816-3 / EMV 4.1	80515/64KB	UART, USB	QFN68/44
73S1112F	ISO7816 / EMV2000	80C52/64KB	UART	LQFP44
73S1113F	ISO7816 / EMV2000	80C52/64KB	UART, USB	LQFP64
73S1121F	ISO7816 / EMV2000	80C52/64KB	UART	TQFP128
73S1120F	ISO7816 / EMV2000	80C52/64KB	UART, USB	LQFP64

Modems and VoIP FXO (Foreign-Exchange-Office)

73M1866 - Single package MicroDAA VoIP FXO



73M1866 provides PCM highway data interface to PSTN twisted pair lines for VoIP systems.

- ◆ PSTN line termination and impedance matching;
- ◆ Line isolation, Hook control, Ring detection;
- ◆ Analog to PCM conversion (8/16 bit);
- ◆ PCM companding (A-law, u-law);
- ◆ Wake-on-Ring, Call Progress Monitor;
- ◆ Host synchronous serial interface support of Master, Slave and Daisy;
- ◆ Polarity Reversal detection without host intervention.

Low-speed Modems & Soft Modem Silicon DAA and AFE

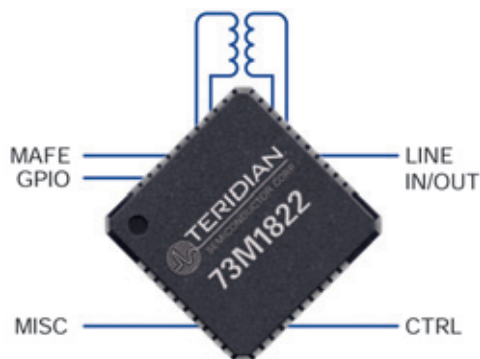
73M2901CE - V.22Bis Single-chip Modem;

73M1822 - Single package. Provides AFE and DAA functionality for soft modem;

73M1903/C - Single-Chip AFE. Provides AFE functionality for soft modem solutions;

73Kx24L - Modem data pumps (BL version with hybrid integrated);

73M1922 - Two chip set MicroDAA. Provides AFE and DAA functionality for soft modem.

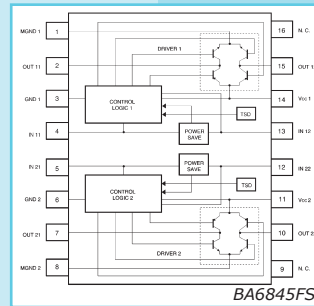
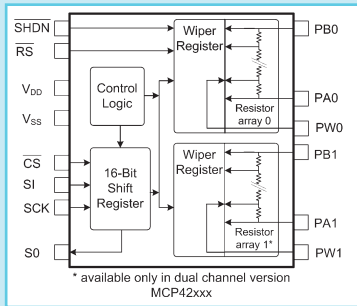


I/O expanders MICROCHIP

			1-4	5-24	25-99	100+
MCP25020-I/P	DIP14	CAN I/O Expander V2.0B, 1 Mb/s, ICSP, 2.7-5.5V	2.606	2.084	1.988	1.930
MCP23016-I/SP	DIP28	16-bit I/O Expander, 400kbits/s, I2C, 2.0-5.5V	1.620	1.296	1.236	1.200
MCP23S08-E/SS	SSOP20	8-bit I/O Expander, 10Mbits/s, SPI, 1.8-5.5V	1.175	0.940	0.896	0.870
MCP23S08-I/P	DIP18	8-bit I/O Expander, 10Mbits/s, SPI, 1.8-5.5V	1.107	0.886	0.845	0.820

Digital Potentiometers MICROCHIP

			1-4	5-24	25-99	100+
MCP4022T-103E/CH	SOT23-6	Digital Pot, 64 steps, Up/Down, 10kohms 50ppm, single channel	0.810	0.648	0.618	0.600
MCP41010-I/SN	NS08	Digital Pot, 256 steps, SPI, 10kohms, single ch	1.377	1.102	1.051	1.020
MCP41010-I/P	DIP8	Digital Pot, 256 steps, SPI, 10kohms, single ch	1.377	1.102	1.051	1.020
MCP41050-I/P	DIP8	Digital Pot, 256 steps, SPI, 50kohms, single ch	1.377	1.102	1.051	1.020
MCP41050-I/SN	NS08	Digital Pot, 256 steps, SPI, 50kohms, single ch	1.377	1.102	1.051	1.020
MCP41100-I/P	DIP8	Digital Pot, 256 steps, SPI, 100kohms, single ch	1.377	1.102	1.051	1.020
MCP41100-I/SN	NS08	Digital Pot, 256 steps, SPI, 100kohms, single ch	1.377	1.102	1.051	1.020
MCP42010-I/P	DIP14	Digital Pot, 256 steps, SPI, 10kohms, dual ch	2.052	1.642	1.566	1.520
MCP42010-I/SL	NS08	Digital Pot, 256 steps, SPI, 10kohms, dual ch	2.052	1.642	1.566	1.520
MCP42050-I/SL	NS08	Digital Pot, 256 steps, SPI, 50kohms, dual ch	2.052	1.642	1.566	1.520
MCP42050-I/P	DIP14	Digital Pot, 256 steps, SPI, 50kohms, dual ch	2.052	1.642	1.566	1.520
MCP42100-I/SL	NS08	Digital Pot, 256 steps, SPI, 100kohms, dual ch	2.052	1.642	1.566	1.520
MCP42100-I/P	DIP14	Digital Pot, 256 steps, SPI, 100kohms, dual ch	2.052	1.642	1.566	1.520



Driver ICs

			1-4	5-24	25-99	100-499	500+
ZXLD1360ET5	TSOT23	PWM LED Driver 1A adj., Vin=7.0-30V	1.698	1.575	1.466	1.370	
ZXCT1081E5	SOT23	Current Monitor, Vin=3.0-40V, Vcc=4.5-12V	0.812	0.753	0.701	0.655	
HT1621B	SS48	LCD Controller 4x32 segments	0.710	0.609	0.568	0.507	
MAX7219CNG	DIP24	LED Display Driver, SPI, 4.0-5.5V	7.981	7.402	6.887	6.437	
ULN2003	DIP16	7 channel Darlington driver 0.5A/50V 2.4V	0.236	0.203	0.183	0.165	0.152
ULN2003 UTC	DIP16	7 channel Darlington driver 0.5A/50V 2.8V	0.178	0.153	0.138	0.124	0.115
ULN2003AD SMD	SO16	7 channel Darlington driver 0.5A/50V 2.4V	0.234	0.201	0.181	0.163	0.151
ULN2004	DIP16	7 channel Darlington driver 0.5A/50V 5V	0.206	0.206	0.176	0.169	0.147
ULN2004AD SMD	SO16	7 channel Darlington driver 0.5A/50V 5V	0.228	0.196	0.176	0.159	0.147
ULN2803	DIP18	8 dr. 0.5A/50V Uin 2.4V	0.367	0.306	0.286	0.253	
ULN2803 UTC	DIP18	8 channel Darlington driver 0.5A/50V 2.4V	0.289	0.241	0.225	0.199	
ULN2803AFW SMD	SO18	8 channel Darlington driver 0.5A 2.4V	0.351	0.293	0.273	0.242	
ULN2804	DIP18	8 dr. 0.5A/50V Uin 5V	0.442	0.369	0.345	0.305	
ULN2804AFW SMD L293B	SO18	8 channel Darlington driver 0.5A 5V	0.438	0.366	0.341	0.302	
BA6287F ROHM	DIP16	4 drivers 1A 36V	3.665	3.399	3.163	2.956	
BA6845FS ROHM	SO8	Reversible DC motor driver, 1A, 4.5-15V	0.731	0.627	0.585	0.522	
BA6845FS T/R ROHM	SSOP16	Stepping motor driver, 1A, 2.7-9V	1.034	0.886	0.827	0.738	
BA7604N ROHM	SSOP16	Stepping motor driver, 1A, 2.7-9V	1.064	0.912	0.851	0.760	
75452	SIP10	Video/audio signal switch, 4.5-5.5V	1.062	0.911	0.850	0.759	
	DIP8	Dual NAND input 20V/0.3A	0.367	0.306	0.286	0.253	

MOSFET drivers

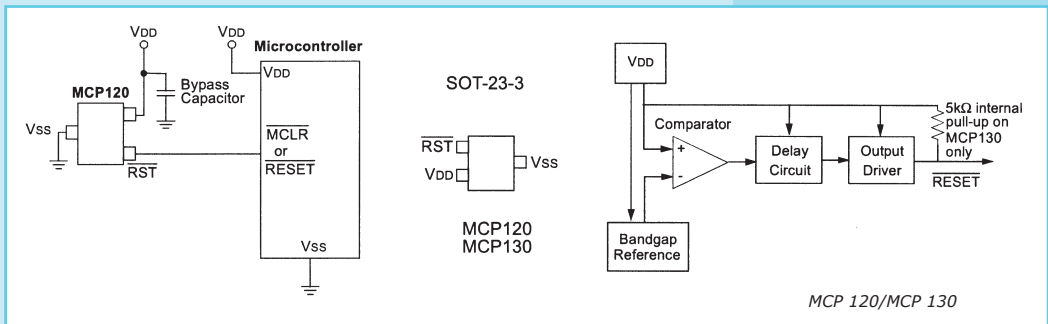
			1-4	5-24	25-99	100+
IR2110	DIP14	MOSFET/IGBT Driver, High&Low Side, 2A, 500V	1.564	1.451	1.350	1.262
TC4420CPA	DIP8	6A Single MOSFET Driver, Non-inverting	0.928	0.861	0.801	0.748
TC4421CAT	TO220-5	9A Single MOSFET Driver, inverting	2.269	2.104	1.958	1.830
TC4421CPA	DIP8	9A Single MOSFET Driver, inverting	1.805	1.674	1.557	1.455
TC4422AVOA	SO8	9A Single MOSFET Driver, Non-inverting	2.028	1.881	1.750	1.635
TC4422CAT	TO220-5	9A Single MOSFET Driver, Non-inverting	2.269	2.104	1.958	1.830
TC4422CPA	DIP8	9A Single MOSFET Driver, Non-inverting	1.805	1.674	1.557	1.455
TC4426CPA	DIP8	1.5A Dual MOSFET Driver, 2 inverting	0.705	0.654	0.609	0.569
TC4427EOA	SO8	1.5A Dual MOSFET Driver, 2 Non-inverting	0.689	0.639	0.595	0.556
TC4428ACOA	SO8	1.5A Dual MOSFET Driver, inv. & Non-inverting	0.525	0.487	0.453	0.423
TC4468CPD	DIP14	1.2A Quad MOSFET Driver, 4 Non-inverting	1.617	1.499	1.395	1.304

RESET, Supervisor ICs

			1-4	5-24	25-99	100+	500+
MCP120-450DI/TO	TO92	Active low, Open drain, 4.375V	0.318	0.283	0.252	0.236	
MCP120T-475I/TT	SOT23	Active low, Open drain, 4.625V	0.318	0.283	0.252	0.236	

RESET, Supervisor ICs

			1-4	5-24	25-99	100+	500+
MCP130T-300I/TT	SOT23	Active low, Open drain (int. Pull-up 5k), 2.925V	0.318	0.283	0.252	0.236	
TC1232CPA	DIP8	Active low/high, Open drain, WDT, 4.5V or 4.75V	1.350	1.200	1.070	1.000	
MC33064P-5	TO92	Active low, Open drain 4.6V	0.310	0.282	0.267	0.253	0.239
MAX690CPA	DIP8	Active low, Push-pull, WDT, 4.65V	2.010	1.824	1.639	1.546	
MAX691CPE	DIP16	Active low/high, Push-pull, WDT, 4.65V	2.384	2.164	1.944	1.834	
SP690ACP	DIP8	Active low, WDT, 4.65V±4%, 0+70°C	1.648	1.361	1.255	1.064	
SP690ACN	NSO8	Active low, WDT, 4.65V±4%, 0+70°C	1.648	1.361	1.255	1.064	
SP691ACP	DIP16	Active low, WDT, 4.65V±4%, 0+70°C	1.379	1.252	1.125	1.061	
TL7705ACP	DIP8	Active low/high, Adj. duration, 4.55V	0.334	0.297	0.264	0.247	
LM809M3-4.38	SOT23	Active low, 4.38V±3%	0.365	0.324	0.289	0.270	
MC34064-5	TO92	Active low, Open Collector, 4.61V	0.299	0.266	0.237	0.221	
MC34064D-5	SO8	Active low, Open Collector, 4.61V	0.299	0.266	0.237	0.221	
ADM705AN	DIP8	Active low, Push-pull, WDT, 4.65V	1.065	0.987	0.919	0.859	
ADM705AR SMD	SO8	Active low, Push-pull, WDT, 4.65V	0.874	0.811	0.754	0.705	
DS1232LPS-2	SO8	Active low/high, Open drain/Push-pull, WDT, 4.62V	1.673	1.551	1.443	1.349	
DS1233-5	TO92	Active low, Open drain (int. Pull-up 5k), 4.625V±5%	1.025	0.951	0.885	0.827	
DS1312	DIP8	Active low, Open drain, LB Monitor, 4.62V	8.946	8.296	7.719	7.214	
DS1833-5	TO92	Active high, Open drain, (int. Pull-up 5k), 4.625V±5%	1.323	1.227	1.141	1.067	
DS1834AS	SO8	Active low, Open drain, Dual Reset 2.88V & 4.63V	1.786	1.656	1.541	1.440	
BD5227G ROHM SMD	SSOP5	Active Low, Open Drain, 2.7V±1%, Adj. duration	0.150	0.137	0.120	0.111	
BD5327G ROHM SMD	SSOP5	Active Low, CMOS, 2.7V±1%, Adj. duration	0.150	0.137	0.120	0.111	
BD5242G ROHM SMD	SSOP5	Active Low, Open Drain, 4.2V±1%, Adj. duration	0.150	0.137	0.120	0.111	
BD5342G ROHM SMD	SSOP5	Active Low, CMOS, 4.2V±1%, Adj. duration	0.150	0.137	0.120	0.111	
BD5245G ROHM SMD	SSOP5	Active Low, Open Drain, 4.5V±1%, Adj. duration	0.150	0.137	0.120	0.111	
BD5345G ROHM SMD	SSOP5	Active Low, CMOS, 4.5V±1%, Adj. duration	0.150	0.137	0.120	0.111	
BD5248G ROHM SMD	SSOP5	Active Low, Open Drain, 4.8V±1%, Adj. duration	0.150	0.137	0.120	0.111	
BD5244G ROHM SMD	SSOP5	Active Low, Open drain, 4.4V±1%, Adj. duration	0.150	0.137	0.120	0.111	



Energy Metering

			1-24	25-99	100+
MCP3905L-I/SS	NSOP24	Energy Meter IC, Gain 1:16, 500:1 Dynamic Range	1.717	1.554	1.480

MCP3905

GSM Modules and Terminals CINTERION (Siemens)

			1-4	5+
GSM MC39i		DB GSM/GPRS-10, 40-pin, GSC	61.32	58.85
GSM MC55		TB GSM/GPRS-10, TCP/IP, 50-pin, UFL	78.61	75.44
GSM MC55i		QB GSM/GPRS-10, TCP/IP, 50-pin UFL	64.36	61.76
GSM MC75i		QB GSM/GPRS-10, EDGE-12, TCP/IP, Small size 80-pin UFL	84.86	81.44
GSM TC35i		DB GSM Module, 40-pin, GSC	59.99	57.57
GSM TC63i		QB GSM/GPRS-12, TCP/IP, Small size, 80-pin, UFL	66.66	63.97
GSM TC65		QB GSM/GPRS-12, TCP/IP, Java, 80-pin, UFL	86.88	83.38
GSM TC65i		QB GSM/GPRS-12, TCP/IP, Java, Small size, 80-pin, UFL	72.08	69.18

GSM/GPRS/EDGE/HSDPA Modules and Terminals



CINTERION
WIRELESS MODULES

Parameters	3G modules	GPS + GSM/GPRS	2G modules					2G Terminals	
	GSM HC25/28	GSM/GPS XT65/75	GSM MC75i (MC75 upgrade)	GSM MC75	GSM TC63i/65i (TC63/65 upgrade)	GSM TC63/65	GSM MC55i (MC55/56 replacement)	GSM TC65T	GSM MC/TC35iT
Java™	-	Yes	-	-	Only TC65i	Only TC65	-	Yes	-
GPS receiver	-	16 channel , L1	-	-	-	-	-	-	-
GPS protocols	-	UBX, NMEA-0183 V2.3, RTCM V2.2	-	-	-	-	-	-	-
Frequency, MHz	900/1800/2100(UMTS)	850/900/1800/1900	850/900/1800/1900	850/900/1800/1900	850/900/1800/1900	850/900/1800/1900	850/900/1800/1900	850/900/1800/1900	900/1800
Power supply, VDC	3.2 ÷ 4.2	3.2 ÷ 4.3	3.2 ÷ 4.5	3.2 ÷ 4.3	3.3 ÷ 4.5	3.2 ÷ 4.5	3.3 ÷ 4.8	8 ÷ 30	8 ÷ 30
Working temperature	-30°C ÷ 65°C	-30°C ÷ 70°C	-30°C ÷ 65°C	-30°C ÷ 70°C	-20°C ÷ 65°C	-30°C ÷ 70°C	-20°C ÷ 70°C	-30°C ÷ 70°C	-20°C ÷ 70°C
Dimensions, mm	34x50x4.5	34x59x3.5	33.9x35x3.3	34x45x3.5	33.9x35x3.3	34x45x3.5	35x32.5x2.95	90x130x38	65x74x33
HSDPA	3.6Mbps	-	-	-	-	-	-	-	-
EDGE	Class 10	Class 10 (Camo XT75)	Class 12	Class 10	-	-	-	-	-
GPRS	Class 10	Class 12	Class 12	Class 12	Class 12	Class 12	Class 10	Class 12	Class 8 (Only MC35iT)
Data interfaces	USB 2.0 full speed	2xSerial, USB 2.0, I2C, SPI	2xSerial, USB 2.0, I2C, SPI	2xSerial, USB 2.0, I2C	2xSerial, USB 2.0, I2C, GPIO	2xSerial, USB 2.0, I2C, SPI	2xSerial, Battery charger	RS232, I2C, SPI	Serial interface RS232
SIM interface	SIM 3V, 1.8V	SIM 3V, 1.8V	SIM 3V, 1.8V	SIM 3V, 1.8V	SIM 3V, 1.8V	SIM 3V, 1.8V	SIM 3V, 1.8V	SIM 3V, 1.8V	SIM 3V
Audio interface	1x Analog	2x Analog, 1x Digital	2x Analog, 1x Digital	2x Analog, 1x Digital	2x Analog, 1x Digital	2x Analog, 1x Digital	2x Analog, 1x Digital	1x Analog	1x Analog
TCP/IP Stack, UDP, HTTP, FTP, SMTP, POP3	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-
RoHS compliant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Approvals	R&TTE, CGF, CE, FCC, IC, PTCRB, UL	R&TTE, CGF, CE, FCC, IC, PTCRB, UL, e-mark	R&TTE, CGF, CE, FCC, IC, PTCRB, UL	R&TTE, CGF, CE, FCC, IC, PTCRB, UL	R&TTE, CGF, CE, FCC, IC, PTCRB, UL	R&TTE, CGF, CE, FCC, IC, PTCRB, UL	R&TTE, CGF, CE, FCC, IC, PTCRB, UL	R&TTE, CGF, CE, FCC, IC, PTCRB, UL, e-mark	R&TTE, CGF, CE (e-mark only TC35iT)

* All CINTERION (SIEMENS) modules and terminals support SMS, Voice, Fax and CSD data calls.

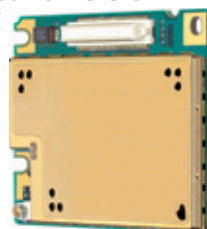
MC75i, TC65i and TC63i^{NEW}

- Reduced size in length (33.9x35.0x3.3mm);
- Fully shielded component area;
- MC75i upgraded to EDGE class12;
- Fully compatible with older versions (non "i").



MC55i – New quad band version of MC55/56^{NEW}

- Quad band 850/900/1800/1900 GSM module;
- Fully shielded component area;
- Fully compatible with MC55/56.



Comet Electronics recommends BD9781HFP ROHM SMD switching voltage regulator for powering **CINTERION (SIEMENS)** GSM modules.

Comet Electronics offers full range of accessories needed for installing and using **CINTERION (SIEMENS)** GSM modules and terminals.

Antennas, antenna cable adapters and connectors

Order code	Description	For GSM modules/terminals
GSM FLAT ANTENNA 1	GSM Antenna, flat, 1dB, SMA, RG174, 3m	GSM HC25, MC39i//55(i)/75(i), TC35i/65(i)/65T, XT65/75
GSM FLAT ANTENNA 2	GSM Antenna, flat, 3dB, SMA, RG174, 3m	GSM HC25, MC39i/55(i)/75(i), TC35i/65(i)/65T, XT65/75
GSM RA ANTENNA SMA	GSM Antenna, right angle, SMA, without wire	All types of GSM modules and terminals without MC35iT, TC35iT
GSM RA ANTENNA FME	GSM Antenna, right angle, FME, without wire	GSM MC35iT, GSM TC35iT
GSM MG5F	GSM Antenna, magnetic, 5dB, FME, RG174, 3m	GSM MC35iT, GSM TC35iT
GSM MHF-SMA E10C CABLE	MHF(f, r/a)-SMA(f) antenna cable, 10cm	All types of GSM modules MHF is U.FL and GSC replacement
GSM MHF-SMA E7C CABLE	MHF(f, r/a)-SMA(f) antenna cable, 7cm	All types of GSM modules MHF is U.FL and GSC replacement
GSM MHF-MHF M5C CABLE	MHF(f, r/a)-MHF(f, r/a) cable, 5cm	All types of GSM modules MHF is U.FL and GSC replacement
GSM UFL-SMA CABLE	U.FL(f)-SMA(f) antenna cable, length 20cm	GSM MC55(i)/75(i), GSM XT65/75, GSM HC15
GSM UFL PCB CON	U.FL(f) connector, PCB mounting	All types of GSM modules
GPS/GSM FLMTA SMA	GPS/GSM antenna, 2xSMA, RG174 cable, 3m	XT65/75
GPS ANN-1 SMA	GPS antenna 2.7-6V, 8.5mA, 27dB, RG174 cable, 5m	GSM/GPS XT65/75
GPS ANN-2 SMA	GPS antenna 3-5V, 22mA, 27dB, RG174 cable, 5m	GSM/GPS XT65/75

SIM card holders

Order code	Description	For GSM modules/terminals
GSM SIMH 1	SIM card holder with SIMCARD PRESENCE	All types of GSM modules
GSM SIMH 2	SIM card holder without SIMCARD PRESENCE	All types of GSM modules
GSM SIMH 3	SIM card socket, Push-Push, with CARD PRESENCE	All types of GSM modules
GSM SIMH 4	SIM card socket without CARD PRESENCE	All types of GSM modules

Connectors and cables

Order code	Description	For GSM modules/terminals
FFC05P40-70T1	Flat Flexible Cable 0.5mm 40p L=70mm Type T1	GSM MC39i, GSM TC35i
FF05Z40RD SMD	Flat Flexible Cable Conn. 40p 0.5mm SMD	GSM MC39i, GSM TC35i
GSM 50PIN CON	50-pin connector Board-to-Board, DF12, 4mm height	GSM HC25, GSM MC55(i)
GSM 80PIN CON	80-pin connector Board-to-Board, 0.5mm pitch, 4mm height	GSM MC75(i), GSM TC65(i), GSM XT65/75(i)
GSM SPACER 4mm/M2 R	Brass spacer, 4mm height, screw M2, round, solderable	All types of GSM modules

APPLICATIONS



Security systems



Logistic and fleet management



Vending machines



Mobile equipment



Car multimedia and navigation

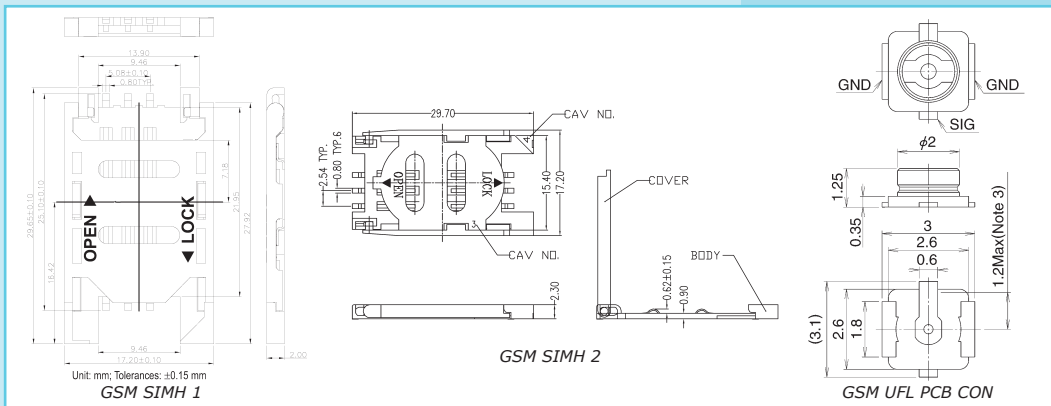
GSM Modules and Terminals CINTERION (Siemens)

		1-4	5+
GSM/GPS XT65	QB GSM/GPRS-12/GPS, TCP/IP, Java, 80-pin, UFL	101.50	97.41
GSM/GPS XT75	QB GSM/GPRS-12/EDGE-10/GPS, TCP/IP, Java, 80-pin,UFL	123.50	118.53
GSM MC351T	DB GSM/GPRS-8 Terminal, DB9, FME	134.91	129.47
GSM TC65T	QB GSM/GPRS-12 Terminal, DB9, 24-pin M-N-L, SMA	163.19	156.61

GSM Accessories

		1-24	25-99	100+
GSM 80PIN CON	80-pin connector B2B, 0.5mm pitch, 4mm height	3.58	2.99	2.75
GSM 50PIN CON	50-pin connector B2B, 0.5mm pitch, 4mm height	1.01	0.84	0.77
GSM GSC-SMA CABLE	GSC(f)-SMA(f) antenna cable, length 10cm	7.06		
GSM UFL-SMA CABLE	U.FL(f)-SMA(f) antenna cable, length 20cm	7.94		
GSM MHF-SMA E10C CABLE	MHF(f, r/a)-SMA(f) antenna cable, 10cm	3.02	2.52	2.32
GSM MHF-SMA E7C CABLE	MHF(f, r/a)-SMA(f) antenna cable, 7cm	3.02	2.52	2.32
GSM MHF-MHF M5C CABLE	MHF(f, r/a)-MHF(f, r/a) cable, 5cm	1.89	1.58	1.45
GSM UFL PCB CON	U.FL(m) connector, PCB mounting	0.32	0.26	0.24
GSM SIMH 1	SIM card socket, Hinge, with CARD PRESENCE	1.73	1.44	1.33
GSM SIMH 2	SIM card socket, Hinge, w/o CARD PRESENCE	0.65	0.54	0.50
GSM SIMH 3	SIM card socket, Push-Push, with CARD PRESENCE	1.46	1.22	1.12
GSM SIMH 4	SIM card socket w/o CARD PRESENCE	0.53	0.45	0.41
GSM FLAT ANTENNA 1	GSM Antenna, flat, 1dB, SMA, RG174 3m	8.59	7.16	6.59
GSM FLAT ANTENNA 2	GSM Antenna, flat, 3dB, SMA, RG174 3m	8.59	7.16	6.59
GSM MG5F	GSM Antenna, magnetic, 5dB, FME, RG174 3m	8.59	7.16	6.59
GSM RA ANTENNA SMA	GSM Antenna, right angle, SMA, without wire	6.65	5.54	5.10
GSM RA ANTENNA FME	GSM Antenna, right angle, FME, without wire	6.65	5.54	5.10
GSM MMCX-SMA E15C CABLE	MMCX->SMA antenna cable , RG174, 150mm	4.57	3.81	3.50
GSM MMCX-SMA E7C CABLE	MMCX->SMA antenna cable , RG174, 70mm	4.50	3.75	3.45
GSM 60PIN SMD CON	60-pin SMD Female header, 1.27mm Pitch	1.58	1.31	1.21

		1-9	10-99	100-499	500+
ACM4532-601-2P	Line F-r, 1.5A, 50VDC, 600Ohm@100MHz, SMD 4.5x3.2x3mm	1.281	1.162	0.988	0.915
ACM7060-701-2PL	Line F-r, 4A, 50VDC, 700Ohm@100MHz, SMD 9x7x4.5mm	3.301	2.994	2.546	2.358
BLM18HG601SN1	Ferrite bead 0603 600Ohm@100MHz 7000Ohm@1GHz 200mA	0.047	0.042	0.036	0.033



GPS Receiver Modules U-BLOX

		1-4	5-24	25+
GPS LEA-4A	GPS receiver, low cost, 17x22.4mm, 34mA, USB	51.628	47.253	43.753
GPS LEA-4P	GPS receiver, progr., 17x22.4mm, 35mA, USB	60.901	55.740	51.611
GPS LEA-4H	GPS receiver, SuperSense indoor, 17x22.4mm, 38mA,USB	65.046	59.533	55.124
GPS LEA-4T	GPS receiver, progr., precision timing, 17x22.4mm, 35mA,USB	156.237	142.997	132.405
GPS NEO-4S	GPS receiver, SuperSense indoor, 12.2x16mm, 38mA,USB	56.118	51.362	47.558
GPS RCB-4H	GPS receiver board, 41x71mm, programmable,SuperSense	67.396	61.685	57.115
GPS TIM-4A	GPS receiver, low cost, 25.4x25.4mm, 34mA	54.843	50.195	46.477
GPS TIM-4P	GPS receiver, progr., 25.4x25.4mm, 35mA	63.133	57.782	53.502
GPS TIM-4H	GPS receiver, SuperSense indoor, 25.4x25.4mm, 38mA	67.597	61.868	57.285
GPS EVK-5H	Evaluation Kit Kickstart all u-blox 5 modules	306.898		
GPS EVK-5P	Evaluation Kit SuperSense LEA-5A, LEA-5M, NEO-5M	306.898		
GPS LEA-5A	GPS u-blox 5 receiver, ROM-based, low cost, 17x22.4mm	40.667	37.221	34.464
GPS LEA-5S	GPS u-blox 5 receiver, ROM-based, KickStart, 17x22.4mm	42.726	39.105	36.209
GPS LEA-5H	GPS u-blox 5 receiver, progr. GALILEO-ready, 17x22.4mm	53.248	48.736	45.126
GPS TIM-5H	GPS u-blox 5 receiver, progr. GALILEO-ready, 25.4x25.4mm	56.756	51.946	48.098
GPS NEO-5M	GPS u-blox 5 receiver, ROM-based, 12.2x16	36.987	33.852	31.345
GPS NEO-5Q	GPS u-blox 5 receiver, ROM-based, KickStart, 12.2x16	40.494	37.062	34.317



Digi's Embedded Solutions

DIGI's Embedded Solutions subdivision, offers a variety of embedded microprocessor modules with many integrated features and interfaces like Ethernet, 802.11b wireless, USB, serial and parallel ports, TFT LCD controllers and etc. Based on high performance NET+ARM microprocessors NetSilicon®, **DIGI's** products offer flexible platform for your design. A variety of Development tools is available from **DIGI** for each product, including Linux and Windows CE support.

Microprocessor	Description
NetSilicon®NS9215	ARM926EJ-S™ core, speeds up to 150 MHz, a comprehensive list of standard peripheral interfaces, two independent on-chip DRP1655X processor cores (up to 300 MHz) allowing the software-based selection of a growing list of application-specific peripheral interface implementations.
NetSilicon®NS9360	ARM9, speeds up to 177 MHz, USBd, USBh, I2C, 1284, serial ports, LCD controller, 10/100Base-T Ethernet
NetSilicon®NS9750	ARM9, similar to NS9360 plus PCI, speeds up to 200 MHz, 10/100Base-T Ethernet, for sophisticated embedded applications
NetSilicon®NS9775	ARM9 Color printer/MFP application processor, 4 independent video channels, each with hardware JBIG decompression and laser engine interface
NetSilicon®NS7520	ARM7, speeds up to 55 MHz, for use in intelligent networked devices
NetSilicon®NET+50	Cost-effective, high-performance 32-bit ARM7 network attached microprocessor, developed for print servers



Embedded microprocessor modules ConnectCore™

Compact wired and wireless modules provide a seamless migration path to a fully integrated System-on-Chip solution. **DIGI** offers fully network-enabled devices with many integrated features and standard interfaces, like Ethernet, Wireless 802.11b, USB, serial ports and etc. Based on industry standard ARM7 and ARM9 cores with on-board, program FLASH and RAM, a dedicated development environment NET+Works®, Linux® and Microsoft®, Windows® CE support and royalty-free development tools are available.

ConnectCore™ 9P 9215, (CC-9P-9215-NE)^{NEW!}

Compact, cost-efficient core module, including the latest NetSilicon® NS9215 microprocessor at 150MHz and up to 16 MB FLASH and RAM. On-chip 10/100 Ethernet MAC, two on-chip Flexible Interface Modules (FIMs - DRP1655X cores up to 300 MHz), 256-bit AES accelerator, power management modes and a rich set of peripherals.



ConnectCore™ 9P (FS-3xx)

Compact ARM9 processor module based on NetSilicon® NS9360/NS9750, up to 128 MB NAND FLASH, 64MB SDRAM, 32-bit PCI v2.2/Cardbus Bridge (33 MHz), IEEE 802.3 10/100Base-T Ethernet, JTAG interface, USB, up to 4 serial or SPI interfaces, I2C, LCD controller for TFT/STN display (18/24 bpp SVGA).



ConnectCore™ 9C (CC-9C-V212-Zx)

Compact ARM9 processor module based on NetSilicon 32-bit NS9360 (155 MHz), 4/8 MB FLASH, 16/32 MB SDRAM IEEE 802.3 10/100Base-T Ethernet, USB, up to 4 serial or 4 SPI interfaces, I2C, integrated controller for 18-bit TFT display (SVGA 800x600) and 4/8-bit STN displays up to 1024x768.



ConnectCore™ Wi-9C (CC-W9C-V212-Y9)

ARM9 processor module based on NetSilicon 32-bit NS9360, up to 256 MB FLASH, 256 MB SDRAM, standard wireless IEEE 802.11b/g 2.4GHz and IEEE 802.11a 5GHz interfaces, data rate up to 54 Mbps, 16 dBm output power, IEEE 802.3 10/100Base-T Ethernet, USB, up to 4 serial or 4 SPI interfaces, I2C, integrated controller for 18 bit TFT display (SVGA 800x600).



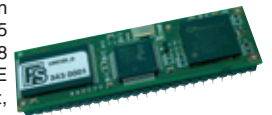
ConnectCore™ 9U (FS-373)

Compact processor module in standard 48DIP size based on 32-bit ARM RISC processor AT91RM200 @ 160 MHz, 16 MB FLASH, 32 MB SDRAM, IEEE 802.3 10/100Base-T Ethernet, JTAG interface, 2 serial interfaces, I2C, external memory bus with 10-bit address and 8-bit data.



ConnectCore™ 7U (FS-35x)

Compact processor module in standard 48DIP size, based on 55 MHz NS7520 ARM7 core, up to 8 MB FLASH, 16 MB SDRAM, IEEE 802.3 10/100Base-T Ethernet, JTAG interface, 2 serial interfaces, SPI, I2C, external memory bus with 10-bit address and 8-bit data.



ConnectCore™ 9M (FS-300x)

High performance microprocessor module, based on 32-bit ARM920T RISC processor S3C2440 @ 300/400 MHz, 2 GB FLASH, 512 MB SDRAM, 1024-bit 1-Wire EEPROM, optional IEEE 802.3 10Base-T Ethernet interface (FS-3006 only), USB 1.1 interface, JTAG interface, 3 serial RS232 interfaces, SPI, I2C, 32-external memory bus interface, I2S interface and AC'97 audio controller, interface for SD/SDIO card, on-chip LCD controller for TFT/STN LCD panels, up to VGA (640x480) resolution w/up to 24bpp color depth).



Name	XBee® 802.15.4	XBee-PRO® 802.15.4	XBee® ZNet 2.5	XBee-PRO® ZNet 2.5
Order code	XB24-xxx	XBP24-xxx	XB24-Bxxx	XBP24-Bxxx
Frequency	ISM 2.4 GHz			
Outdoor RF line-of-sight range	up to 100m	up to 1.6km	up to 120m	up to 1.6km
Indoor/Urban Range	up to 30m	up to 100m	up to 40m	up to 120m
Transmit power output	1mW (0dBm)	60mW (18dBm)	2mW (3dBm)	63mW (18dBm)
RF data rate	250 000 bps			
Receiver sensitivity	-92dBm	-100dBm	-98dBm	-102dBm
Supply voltage	2.8 - 3.4V		2.1 - 3.6V	3.0 - 3.4V
Transmit boost current (typical)	45mA (@ 3.3V)	215mA (@ 3.3V)	40mA (@ 3.3V)	295mA (@ 3.3V)
Receive current (typical)	50mA (@ 3.3V)	55mA (@ 3.3V)	40mA (@ 3.3V)	45mA (@ 3.3V)
Power-down current	<10 µA		<1µA	
Dimensions	2.438 x 2.761cm	2.438 x 3.294cm	2.438 x 2.761cm	2.438 cm x 3.294cm
Operating temperature	- 40°C ÷ +85°C (Industrial)			
Antenna options	U.FL connector, chip antenna or integrated whip antenna		U.FL connector, chip antenna or integrated whip antenna, RPSMA RF connector	
Supported network topologies	Point-to-Point, Point-to-Multipoint, Peer-to-Peer		Point-to-Point, Point-to-Multipoint, Peer-to-Peer, Mesh	
Number of channels	16	12	16	13
Filtration options	PAN ID, Channel & Source/Destination addresses			
Approvals	FCC Part 15.24, Industry Canada (IC), Europe (CE - ETSI), RoHS			



ZigBee

wireless

modules



Digi Connect® Wi-Wave - WLAN radio card



- 802.11b/g radio card for embedded systems;
- Highly integrated PCI Express Mini Card form factor L50.95xW30.00xH4.75;
- USB 2.0 full- and high-speed device interface support;
- Digi's own WLAN technology for long-term product availability;
- Power supply - 3.3VDC ± 9% (3.00 to 3.60V), 750mA max;
- Rf interface – 2xU.FL connectors.

Ethernet to serial interface adapters Digi Connect® ME and Digi Connect® EM

Digi Connect® ME	Digi Connect® EM	Digi Connect® Wi-ME	Digi Connect® Wi-EM
DC-ME-01T-S	DC-EM-02T-S	DC-WME-01T-S	DC-WEM-02T-S
<ul style="list-style-type: none"> • 32-bit NET+ARM7 microprocessor NetSilicon NS7520 • Cable 10/100Base-T Ethernet interface • Standard RJ-45 Ethernet connector or header • 2/4 MB FLASH and 8 MB RAM • High speed TTL serial interface • GPIO pins • RoHS compatible • Plug-and-play firmware • Optional JTAG interface for development purposes 		<ul style="list-style-type: none"> • Wireless 802.11b network interface • 32-bit NET+ARM7 microprocessor NetSilicon NS7520 • High speed TTL serial interface, GPIO pins • 4 MB FLASH, 8 MB RAM, Integrated wireless data encryption WEP, WPA/WPA2/802.11i, PSK • RoHS compatible • Plug-and-play firmware • Optional JTAG interface for development purposes (DC-WME-01T-JT) • Fully compatible with Digi Connect® ME • Antenna connectors RP-SMA 	
Parameters		Parameters	
Power supply voltage	3.3V	Power supply voltage	3.3V
Maximum power consumption	270mA	Maximum power consumption	400mA
Working temperature range	- 40°C ÷ 85°C	Working temperature range	- 20°C ÷ 85°C
		Working frequency	2.4GHz
		Transmit power	16dBm
		Maximum data rate	11Mbps



U-blox 5 GPS / Galileo Positioning GPS Modules and Evaluation Kits

Redefining the boundaries of GPS performance

U-blox's fifth generation of GPS receivers has surpassed all competition. **U-blox 5** single chips and chipsets offer cutting-edge positioning technology at competitive prices. The new generation receivers combine the fastest TTFF in the market with the highest sensitivity while keeping power needs and costs down. This makes **U-blox 5** receivers the best all-round GPS chip offering in the market in terms of accuracy, reliability, performance and cost.

U-blox 5 technology offers industry-leading GPS receivers that are tailored to the customers needs including producers of GPS-enabled consumer devices, automotive application developers or any other product manufacturer wishing to enhance their end-product by endowing it with affordable, high-performance positioning functionality.

Brand new **KickStart** technology radically accelerates GPS acquisition performance at weak signal levels. GPS receivers with **KickStart** boast an ultra-fast Time-To-First-Fix, even when operating in difficult signal environments.

	u-blox	Power		Size	Memory	Function			Antenna		Input / Output																	
		Voltage Range (V)	Supply Current (mA)	Thickness (mm)	Programmable (Flash) / FW Update	KickStart	Dead Reckoning	SuperSense	Precision Timing	Antenna Supply	Antenna Supervisor	UART	USB	SPI	DDC	Reset Input	Configuration pin											
u-Blox 5 Modules	NEO-5M	2.7-3.6	42	2.1							1	1		1														
	NEO-5Q										1	1	1	1														
	LEA-5H	2.7-3.6	42	3.0																								
	LEA-5S																	•	•	•	•	•	•	•	•	•	•	•
	LEA-5A																	•	•	•	•	•	•	•	•	•	•	•
	LEA-5Q			•	•	•	•	•	•	•	•	•	•	•														
	LEA-5M			•	•	•	•	•	•	•	•	•	•	•														
	LEA-5T			•	•	•	•	•	•	•	•	•	•	•														
	TIM-5H	2.7-3.6	40	3.0	•	•	•	•	•	•	2				•													

U-blox 5 GPS Evaluation Kits

U-blox 5's evaluation kits use a built-in USB interface for both power supply and high-speed data transfer to PC.

GPS U-blox 5 EvKit EVK-5H – Evaluation kit for **U-blox 5 KickStart** products LEA-5H, LEA-5S, LEA-5Q, TIM-5H, NEO-5Q.

GPS U-blox 5 EvKit EVK-5P – Evaluation kit for **U-blox 5 Super Sense** products LEA-5A, LEA-5M, NEO-5M.

GPS U-blox 5 EvKit EVK-5T – Evaluation kit for **U-blox 5 Precision Timing** products LEA-5T.



The u-Center GPS Evaluation Software provides a powerful platform for fast product evaluation, configuration, testing and performance visualization of U-blox GPS receiver products.

GPS ACTIVE ANTENNAS	
Order code	Description
GPS ANN-1 MCX	GPS antenna 2.7-6V, 8.5mA, 27dB, 5m RG174 coaxial cable, MCX connector
GPS ANN-1 SMA	GPS antenna 2.7-6V, 8.5mA, 27dB, 5m RG174 coaxial cable, SMA connector
GPS ANN-2 MCX	GPS antenna 3-5V, 22mA, 27dB, 5m RG174 coaxial cable, MCX connector
GPS ANN-2 SMA	GPS antenna 3-5V, 22mA, 27dB, 5m RG174 coaxial cable, SMA connector

GPS Antennas		1-4	5-24	25-99	100+
GPS ANN-1 MCX	GPS antenna 2.7-6V, 8.5mA, 27dB, 5m RG174 cable	11.840	11.020	10.292	9.108
GPS ANN-1 SMA	GPS antenna 2.7-6V, 8.5mA, 27dB, 5m RG174 cable	11.840	11.020	10.292	9.108
GPS ANN-2 MCX	GPS antenna 3-5V, 22mA, 27dB, 5m RG174 cable	12.760	11.877	11.091	9.815
GPS ANN-2 SMA	GPS antenna 3-5V, 22mA, 27dB, 5m RG174 cable	12.760	11.877	11.091	9.815
GPS/GSM FLMTA SMA	GPS/GSM antenna, 2xSMA, 3m RG174 cable	36.160	31.821	30.085	28.928
Bluetooth Modules SENA		1-4	5-24	25+	
Parani-ESD100	Bluetooth Class1 UART module, 100m, chip antenna	71.46	65.40	60.56	
Parani-ESD110	Bluetooth Class1 UART module, 100m, external ant.	85.03	77.82	72.06	
Parani-ESD200	Bluetooth Class2 UART module, 30m, chip antenna	71.46	65.40	60.56	
Parani-ESD210	Bluetooth Class2 UART module, 30m, external ant.	85.03	77.82	72.06	
Parani-ESD1000	Bluetooth V2.0 Class1 UART module, 100m, RPSMA connector	68.02	62.26	57.65	
Parani-SD100	Bluetooth-Serial Adapter Class1 RS232@DB9	165.03			
Parani-SD200	Bluetooth-Serial Adapter Class2 RS232@DB9	165.03			
Parani-BPC	Battery Pack, Parani-SD200, 2xAAA batteries included	21.29			
Parani-SEC-G01R	Bluetooth Antenna Extension Cable, 15cm, RPSMA	11.35			
Parani-SAT-G01R	Bluetooth stub antenna, 1 dBi, RPSMA	8.51			
Parani-ESD200SK	Parani-ESD200 Starter Kit	204.95			
Parani-ESD210SK	Parani-ESD200 Starter Kit	204.95			
Ethernet Modules DIGI		1+			
DC-ME-01T-S	Digi Connect ME, 2MB FLASH, 8MB RAM, Plug-and-Play	54.49			
DC-WME-01T-S	Digi Connect Wi-ME, 4MB FLASH, 8MB RAM, Plug-and-Play	135.24			
DC-EM-02T-S	Digi Connect EM, LED array, RJ45, Plug-and-Play	93.43			
DC-WEM-02T-S	Digi Connect Wi-EM, LED array, Plug-and-Play	☞			
DC-ANT-24DP	2.4GHz Dipole Antenna, 2dBi for Digi Connect Wi-ME/EM	11.35			
ConnectCore Modules DIGI		1+			
FS-355	ConnectCore 7U, 2MB FLASH, 16MB SDRAM	110.116			
FS-373	ConnectCore 9U, 16 MB FLASH, 32MB SDRAM	☞			
FS-377	ConnectCore XP 270, 520MHz, 32MB FLASH, 64MB SDRAM	☞			
FS-382	ConnectCore 9P 9360, 32MB FLASH, 32MB SDRAM	☞			
FS-364	ConnectCore 9P 9750, 32MB FLASH, 16MB SDRAM	☞			
FS-3006	ConnectCore 9M 2440, 64MB FLASH, 64MB SDRAM, Ethernet	☞			
FS-3007	ConnectCore 9M 2440, 32MB FLASH, 32MB SDRAM	☞			
Ethernet Servers SENA		1+			
LS100	Serial to Ethernet device server, 1-port	87.00			
NEMO10	NEMO10 10BaseT Serial Device Server Module	26.40			
2,4GHz/802.15.4/ZigBee Modules and Accessories		1+			
XB24-AWI	ZigBee module XBee, 1mW, 30/100m, wire antenna	23.85			
XB24-ACI	ZigBee module XBee, 1mW, 30/100m, chip antenna	23.85			
XB24-BCIT	XBee Series 2 module XBee, 1mW, chip antenna	25.91			
XB24-BSIT	XBee Series 2 module XBee, 1mW, RPSMA connector	28.38			
XB24-BWIT	XBee Series 2 module XBee, 1mW, wire antenna	25.91			
XB24-BPDK	XBee Series 2 ZigBee Development Kit	389.40			
XB24-DKS	XBee Starter Kit, 1xUSB & 1xRS232 Demo Boards	145.20			
XBP24-AWI	ZigBee module XBee-PRO, 50mW, 100/1600m, wire antenna	35.64			
XBP24-ACI	ZigBee module XBee-PRO, 50mW, 100/1600m, chip antenna	35.64			
XBP24-AUI	ZigBee module XBee-PRO, 50mW, 100/1600m, U.FL connector	35.64			
XBP24-BCIT	XBee-PRO ZNet 2.5, Series 2, 63 mW, chip antenna	39.20			
XBP24-BWIT	XBee-PRO ZNet 2.5, Series 2, 63 mW, wire antenna	39.20			
XBP24-BSIT	XBee-PRO ZNet 2.5, Series 2, 63 mW, RPSMA connector	41.53			
XBP24-BUIT	XBee-PRO ZNet 2.5, Series 2, 63 mW, U.FL connector	39.20			
XA-A14-CE1P	XBee-PRO 802.15.4 - USB Adapter	100.94			
XA-A14-CS2P	XBee-PRO 802.15.4 - RS-232 Adapter	100.94			
XA-A14-CS2R	XBee 802.15.4 - RS-232 Adapter	87.35			
XA-B14-CE1R	XBee ZNet 2.5 - USB Adapter, ZigBee	87.35			
XA-B14-CE2R	XBee ZNet 2.5 - RS-232PH (Power harvesting) Adapter, ZigBee	87.35			
XA-B14-CS2R	XBee ZNet 2.5 - RS-232 Adapter, ZigBee	87.35			
A24-HASM-450	2.4Ghz antenna, 4.50", RPSMA connector male	6.86			
A24-HASM-525	XBee 1/2 Wave Antenna, 6", RPSMA connector	27.06			
A24-HABUF-PSI	XBee 1/4 Wave Antenna, 5", U.FL, MI-113	6.86			
JF1R6-CR3-4I	XBee U.FL(f) to RPSMA(f) bulkhead, RG178	6.86			

SENA Device Servers

SENA offers a variety of device servers and adapters for Ethernet, wireless 802.11b WiFi, Bluetooth and serial communications

LS100 - Ethernet-to-serial device adapter

- Single port serial adapter;
- 10Base-T Ethernet interface;
- Integrated ARP, IP/ICMP, TCP/IP, Telnet, DHCP, PPPoE protocols;
- Standard RS232 port up to 115Kbps;
- Power supply 7.5 ~ 15VDC.



STS400/800/1600 - Linux based terminal servers



- 4/8/16 serial ports;
- 10/100Base-T Ethernet interface;
- Integrated Ethernet protocols (TCP/IP, DNS, SMTP, DHCP, HTTP, etc.);
- PCMCIA card slot.

PS110/410/810 - Linux based serial device servers

- 1/4/8 serial ports;
- 10/100Base-T Ethernet interface;
- RS232/422/485 interface, up to 230Kbps;
- Integrated Ethernet protocols (TCP/IP, DNS, SMTP, DHCP, PPP, etc.).



SS100 - Linux based serial device server



- Single port serial server;
- 10/100Base-T Ethernet interface;
- RS232/422/485 interface, up to 230Kbps;
- Integrated encryption SSL (Secure Socket Layer), RC4 and 3DES;
- Integrated Ethernet protocols (TCP/IP, DNS, SMTP, DHCP, PPP, etc.).

PS110W/PS210W - Versatile Single- and Two-port Wireless Device Servers

- Connects legacy serial devices to 802.11b/g Wi-Fi or 10/100Base-T Ethernet network;
- Supports surge protector for RS232 interface, up to 230Kbps speed;
- Flexible TCP/UDP host mode support: Multiple host connection/data transfer;
- Supports Dynamic DNS protocol for DSL connection to broadband Internet;
- Configuration via Web, Telnet/SSH, Windows Utility or console;
- Supports RFC 2217, Telnet COM Port Control Protocol;
- Powerful security support, 64/128-bit WEP, WPA/WPA2, SSL (Secure Socket Layer), RC4.



NEMO10 - 10BaseT Serial Device Server Module



- Single-chip DIL type Ethernet controller for onboard installation;
- Compact size 45mm x 45mm x 18.5mm;
- 10Base-T Ethernet interface and UART interface up to 115Kbps;
- Reliable TCP/IP protocol stack, supports ARP, IP/ICMP, TCP, Telnet, DHCP, PPPoE
- Configuration using Telnet or Config command via serial interface;
- +5V Input, 0.3W low power consumption.

Bluetooth Modules



Parani-ESD1000 – Bluetooth V2.0 + EDR module

- OEM Bluetooth-UART module with RPSMA antenna connector;
- Bluetooth v2.0+EDR, SSP, Class I, +18dBm output level;
- Receiver sensitivity -88dBm;
- Standard serial port UART (3.3V), up to 921.6Kbps;
- RF range from 100 up to 1000 m (depending on antenna type);
- Power supply 3.3V, working temperature range: -30°C to 55°C.



Accessories available for Parani-ESD1000:

- Parani-SAT-G01R - Bluetooth stub antenna, 1dBi, RPSMA;
- Parani-SEC-G01R - Bluetooth Antenna Extension Cable, 15cm, RPSMA.

Product	Parani-ESD100	Parani-ESD110	Parani-ESD200	Parani-ESD210
Description	On-board antenna	External antenna	On-board antenna	External antenna
Bluetooth Interface	Bluetooth v1.2 Class I Level - 18dBm Protocols - RFCOMM, L2CAP, SDP Profiles - General Access Profile, Serial Port Profile		Bluetooth v1.2 Class II Level - Max. 4dBm Protocols - RFCOMM, L2CAP, SDP Profiles - General Access Profile, Serial Port Profile	
RF Range	Nominal 100m	Nominal 100m, up to 1000m	Nominal 30m	Nominal 30m, up to 300m
Connector	2.54mm Header 2x6		2.54mm Header 1x4x2	
Power supply	3.3V			
Serial Interface	UART, 1200bps ÷ 230Kbps			
Approval	FCC, MIC, RoHS			
Dimensions (HxWxD)	27.5 x 27.7 x 14 (mm)		18 x 20 x 11.7 (mm)	



Bluetooth RS232 adapters

- Bluetooth v1.2, Class I (SD100), Class II (SD200);
- Output power - 18dBm;
- Protocols - RFCOMM, L2CAP, SDP;
- Profiles - General Access Profile, Serial Port Profile;
- Serial interface - RS232, DB9, 1,2~230Kbps;
- Power supply - 5V~12V (Battery holder - 2xAA for Parani-SD200).

Parani-MSP1000x - Industrial Bluetooth servers

- **RoHS** compliant Bluetooth servers;
- Bluetooth v2.0 Class I, output level 18dBm;
- Bluetooth point-to-multipoint with up to 28 devices;
- Profiles: Serial Port, LAN Access, PAN, Dial up Networking, File Transfer;
- 10/100 Base-T Ethernet interface;
- Integrated HTTP, FTP, Telnet, DHCP, SNMP, etc. protocols.



Radio Receiver/Transmitter Modules			1-4	5-24	25-99	100+
AM-HRR3-433		AM Receiver 433 MHz 50Hz-2,0kHz 5V 2.5mA	7.566	6.779	6.537	6.053
AM-HRR30-433		AM Receiver 433 MHz 4,8kbps 5V 2.5mA miniature	8.052	7.214	6.957	6.441
AM-HRR6-433		AM Receiver 433 MHz 50Hz-2,0kHz 5V 0.5mA	8.092	7.251	6.992	6.474
AM-HRR8-433		AM Receiver 433 MHz 50Hz-2,0kHz 3V 0.5mA	7.971	7.142	6.887	6.377
AM-RT4-433		AM Transm.DIL 433 MHz 50Hz-9.6kHz 2-14V 70m	7.121	6.381	6.153	5.697
AM-RT5-433		AM Transm.SIL 433 MHz 50Hz-9.6kHz 2-14V 70m	8.618	7.722	7.446	6.895
AM-TX1-433		AM Transmitter 433 MHz 2.5-12V 2.5mA 1.2 kBaud up to 30m	13.474	12.072	11.641	10.779
FM-TX1-173-10-225K		FM Transmitter 173.225MHz 10kbps 3-10V 10km+	41.644	39.785	38.297	37.182
FM-RX1-173-10-225K		FM Receiver 173.225MHz 10kbps 3-10V	99.908	95.448	91.880	89.204
FM-BIM2-433-160-5V		FM Transceiver 433 MHz 160kbps 5V 120m	52.898	50.537	48.647	47.230
FM-RX2-433-40-5V		FM Receiver 433 MHz 40kbps 5V	30.520	29.157	28.067	27.250
FM-RX2-418-40-3V		FM Receiver 418 MHz 40kbps 3V	30.520	29.157	28.067	27.250
FM-RX2-433-160-3V		FM Receiver 433 MHz 160kbps 3V	30.520	29.157	28.067	27.250
FM-RX2-433-160-5V		FM Receiver 433 MHz 160kbps 5V	30.520	29.157	28.067	27.250
FM-RX2-433-40-3V		FM Receiver 433 MHz 40kbps 3V	30.520	29.157	28.067	27.250
FM-RX2A-433-64		FM Receiver 433 MHz 64kbps with RSSI 2.7-16V	56.731	54.199	52.172	50.653
FM-RX3A-869-64		FM Receiver 869 MHz 64kbps 2.7-16V	55.198	52.734	50.762	49.284
FM-SILRX-418-5		FM Receiver 418 MHz 5kbps 5V	28.913	27.622	26.590	25.815
FM-SILRX-433-5		FM Receiver 433 MHz 5kbps 5V	28.913	27.622	26.590	25.815
FM-TX2-433-40-5V		FM Transmitter 433 MHz 40kbps 5V 300m	16.331	15.602	15.018	14.581
FM-TX2-433-160-3V		FM Transmitter 433 MHz 160kbps 3V 300m	16.331	15.602	15.018	14.581
FM-TX2-433-160-5V		FM Transmitter 433 MHz 160kbps 5V 300m	16.331	15.602	15.018	14.581
FM-TX2-433-40-3V		FM Transmitter 433 MHz 40kbps 3V 300m	16.331	15.602	15.018	14.581
FM-TX2-418-40-3V		FM Transmitter 418 MHz 40kbps 3V 300m	16.331	15.602	15.018	14.581
FM-TX3A-869-64		FM Transmitter 869 MHz 64kbps 2.2-12V 300m	29.395	28.083	27.033	26.246
FM-TXM-418-5		FM Transmitter 418 MHz 5kbps 9V 200m	13.064	12.481	12.015	11.665
FM-TXM-433-5		FM Transmitter 433 MHz 5kbps 9V 200m	13.064	12.481	12.015	11.665
FLEXI-4BA-433		Flexi 4BA 1/4 Wave Antenna 433 MHz	10.876	9.745	9.397	8.701
PU-M4-433		Helical M4 1/4 Wave Antenna 433 MHz	7.910	7.087	6.834	6.328
TELECOM			1-4	5-24	25-99	100+
LM567CN	DIP8	Tone Decoder, 5V	0.987	0.888	0.818	0.761
LMC567CN	DIP8	Tone Decoder CMOS, 2-9V	1.083	0.983	0.883	0.833
XR2211ACP	DIP14	FSK Demodulator / Tone decoder	1.682	1.526	1.371	1.294
MT8870(CM8870PI)	DIP18	DTMF Receiver	1.176	1.054	0.984	0.871
MT8870 CM8870CSI)	SO18	DTMF Receiver	1.158	1.038	0.970	0.858
MT8880(CM8880PI)	DIP18	DTFM Transmitter uP/uC Interface	4.458	3.995	3.731	3.302
RF communications			1-4	5-24	25-99	100+
MRF24J40-I/ML	QFN20	2.4 Ghz IEEE/ZigBee transceiver	3.363	2.905	2.771	2.690
CML - Application specific ICs for radio and telecommunications			1-4	5-24	25+	
CMX469AD3 SMD	SO20	1,2/2,4/4,8 kBaud full duplex FFSK modem	18.543	17.707	16.705	
CMX469AE2 SMD	TSSOP24	1,2/2,4/4,8 kBaud full duplex FFSK modem	19.070	18.211	17.180	
CMX602BD4 SMD	SO16	CLIP + Call waiting	5.849	5.586	5.270	
CMX618L4 SMD	LQFP48	Half-duplex RALCWI Vocoder with Integrated Voice Codec	16.884	16.124	15.211	
CMX638L4 SMD	LQFP48	Full-duplex RALCWI Vocoder with Integrated Voice Codec	25.191	24.056	22.694	
CMX639E2 SMD	TSSOP24	CVSD Digital Voice Codec, 8-128 kbps, full duplex	14.472	13.820	13.038	
CMX649D3 SMD	SO20	ADM Voice Codec, 16-128 kbps, full duplex	15.739	15.030	14.179	
CMX7031L9 SMD	LQFP64	The Flexible Two-Way Radio Processor	26.834	25.625	24.175	
CMX850L8 SMD	LQFP100	Communications controller, 8051 based	4.040	3.858	3.640	
CMX865AE4 SMD	TSSOP16	Telecom Signalling Device	6.482	6.190	5.840	
CMX868AD2 SMD	SO24	Low Power V.22 bis modem, CMX868 upgrade	16.884	16.124	15.211	
CMX869D2 SMD	SO24	Low Power V.32 bis modem	8.563	8.177	7.714	
CMX869BD2 SMD	SO24	Low Power V.32 bis Modem	39.943	38.144	35.985	
CMX909BD5 SMD	SSOP24	GMSK packet data modem	9.347	8.926	8.420	
FX604D4 SMD	SO16	V.23, 1200b/s modem	9.347	8.926	8.420	
FX604P3	DIP16	V.23, 1200b/s modem	9.347	8.926	8.420	
FX614D4 SMD	SO16	Bell 202 FSK modem	9.721	9.283	8.757	
FX614P3	DIP16	Bell 202 FSK modem	11.288	10.780	10.170	
FX631P	DIP16	SPM / Call Charge Metering	20.201	19.291	18.199	
FX469DW	SOIC20	SPM / Call Charge Metering				
Sensors			1-4	5-24	25-99	100+
LM335Z	TO92	Temp. sensor, 2-terminal zener, 10 mV/°K	0.575	0.501	0.479	0.435
TC77-5.0MOA	SO8	13-bits Thermal sensor, ±0.5°C, SPI, 5V	0.932	0.745	0.711	0.690
TC77-5.0MCTTR	SOT23A-5	13-bits Thermal sensor, ±0.5°C, SPI, 5V	1.013	0.810	0.773	0.750
TCN75-5.0MUA	MS08	9-bits Temp. sensor, ±0.5°C, I2C, 5V	1.283	1.026	0.979	0.950
TCN75AV0A	SO8	9-12-bits Temp. sensor, ±0.5°C, I2C, 2.7-5.5V	0.716	0.572	0.546	0.530
TCN75AV0A	MS08	9-12-bits Temp. sensor, ±0.5°C, I2C, 2.7-5.5V	0.716	0.572	0.546	0.530
TC1046VNBTR	SOT23A-6	Temp.-to-Voltage Converter, 6.25mV/°C, 2.7-4.4V	0.727	0.582	0.555	0.539
TC1047VNBTR	SOT23A-6	Temp.-to-Voltage Converter, 10mV/°C, 2.5-5.5V	0.635	0.508	0.484	0.470
TC1047VNBTR	SOT23A-6	Temp.-to-Voltage Converter, 10mV/°C, 2.7-4.4V	0.608	0.486	0.464	0.450

Communication ASICs


CML Microcircuits

COMMUNICATION SEMICONDUCTORS

CML MICROCIRCUITS PLC. Group is a world-leader in the design, development and supply of low-power analogue, digital and mixed signal semiconductors for telecommunication systems worldwide.

Wireless Data

Wireless modems, with data rates up to 200 kbit/s and modulation formats FSK, FFSK/MSK, GMSK and p/4 DQPSK

Wireline Telecoms

The analogue product range covers wireline voice and signaling areas including voice scrambling, call progress, DTMF, CLI/CIDCW, SPM, ISDN and telephone ICs

Two-Way Radio

Simplex and duplex audio-processing, including voice scrambling, ADM and CVSD voice coders, all current inband and sub-audio signaling schemes and baseband radio processors

Order code	Package	Description
CMX469A P6/ D3/ E2	24PDIP/20SOIC/24TSSOP	Baud duplex FFSK modem
CMX909BD5 SMD	24SSOP	GMSK packet data modem
CMX990Q1	64VQFN	GMSK Modem and RF Transceiver
CMX602BD4 SMD	16SOIC	CLIP + Call waiting
FX631P	40PDIP	SPM / Call-Charge Metering
FX604 P3/ D4	16PDIP/16SOIC	V.23, 1200b/s modem
FX614 P3/ D4	16PDIP/16SOIC	Bell 202 FSK modem
CMX624D2 SMD	24SOIC	uC compatible V.23 modem + DTMF
CMX639E2 SMD	24TSSOP	CVSD Digital Voice Codec
CMX649D3 SMD	20SOIC	Adaptive Delta Modulation Codec
CMX865AE4	16TSSOP	Telecom Signalling Device
CMX850L8 SMD	100LQFP	Communications Controller, 8051 based
CMX866	28SOIC, 28SSOP	V.22bis Modem with AT Command Set
CMX868AD2 SMD	24SOIC	Low Power V.22bis, modem CMX868 upgrade
CMX869D2 SMD	24SOIC	Low power V.32bis modem
CMX869A/B	24SOIC, 24TSSOP	Low Power V.32bis modem CMX869 upgrade
CMX639E2 SMD	24TSSOP	CVSD Digital Voice Codec
CMX649AD3 SMD	20SOIC	Adaptive Delta Modulation Codec
CMX7143L4/Q3	48LQFP/48VQFN	The Flexible Multi-mode Data Modem Set
CMX7042L4/Q3	48LQFP/48VQFN	AIS Class B Baseband Processor
CMX7031L4/Q3/L9/Q1	48LQFP/48VQFN/64LQFP/64VQFN	The Flexible Two-Way Radio Processor
CMX7041 L4/Q3/L9/Q1	48LQFP/48VQFN/64LQFP/64VQFN	The Flexible Two-Way Radio Processor

CMX639 – CVSD Digital Voice Codec

- Single chip, full duplex CVSD voice codec;
- Integrated input and output filters;
- Programmable Sampling Clocks;
- 3 and 4 bit Companding Algorithms;
- Low power consumption (1.9mA typ. @ 3V);
- Small size device;
- Supply voltage - 3.0V to 5.5V;
- Microcontroller interface.



New CMX869B series, V32bis modem

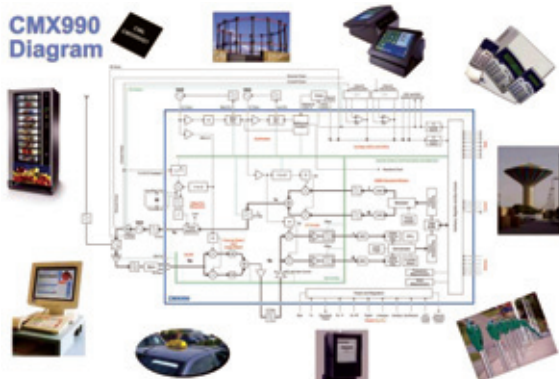
- Multi-standard QAM, DPSK and FSK Modem;
- Upgrade of CMX869;
- 2 or 4- wire operation;
- DTMF/Tones Transmit and Receive
- Ring detect / line reversal input;
- Compact 24-pin TSSOP, SOIC and DIL packaging.



CMX990 GMSK Packet-Data Modem and RF Transceiver

- Half-Duplex GMSK Modem, 4 to 16 kbps;
- Low supply voltage - 3.0 to 3.6 V;
- Custom-Packet and Freeformat modes for data transmissions;
- Simple Parallel Interface for host microcontroller;
- Suitable for Mobitex wireless standard, EN 300 113 and FCC CFR 47 Part 90 Applications;
- Full-Feature Airlink Frame Formatting FEC and CRC;
- Integrated RF, IF and Synthesiser Sections - 400MHz to 1GHz Range;
- On-Chip ADCs and DACs for Radio Control and General Purpose Monitoring.

CMX990 Diagram

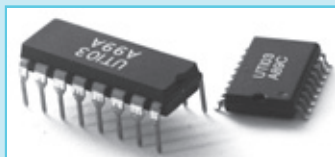


Sensors

			1-4	5-24	25-99	100+
SMT16030Z	TO92	Temp. sensor, ±1.2°C, pulse output, 5V	3.661	3.323	2.985	2.816
SMT16030M	TO18	Temp. sensor, ±0.7°C, pulse output, 5V	4.461	4.049	3.637	3.432
SMT16030T	TO220	Temp. sensor, ±1.7°C, pulse output, 5V	4.118	3.738	3.358	3.168
SMTIR9901		Infrared sensor, 0.5mm ² , 40mS, 110V/W, 50k	13.570	12.552	11.874	11.308
SMTIR9902		Infrared sensor, 0.5mm ² , 40mS, built-in temp. sensor	17.379	16.075	15.206	14.482
SMTHS07		Humidity sensor 330pF 0-100%RH lin2%	7.787	7.203	6.814	6.489
SMTUT103 DIP	DIP16	14-bits UTI, 2.9-5.5V, -40+85°C	6.740	6.118	5.496	5.185
SMTUT103 SMD	SO18	14-bits UTI, 2.9-5.5V, -40+85°C	6.740	6.118	5.496	5.185
SPD005G		Pressure sensor 0-0.35 Bar (gauge), resistive bridge 3.3k	5.034	4.570	4.105	3.873
SPD015G		Pressure sensor 0-1.0 Bar (gauge), resistive bridge 3.3k	5.034	4.570	4.105	3.873
SPD030G		Pressure sensor 0-2.0 Bar (gauge), resistive bridge 3.3k	5.034	4.570	4.105	3.873
SPD100G		Pressure sensor 0-6.5 Bar (gauge), resistive bridge 3.3k	5.034	4.570	4.105	3.873
SPD015A		Pressure sensor 0-1.0 Bar (absolute), resistive bridge	5.034	4.570	4.105	3.873
SPD015A SO8	SO8	Pressure sensor 0-1.0 Bar (absolute), resistive bridge	5.034	4.570	4.105	3.873
SPD102DAhyb		Pressure sens. 102mmH ₂ O Differential, Analog out., Hybrid	12.713	11.539	10.366	9.779
SPD300ABT05		Pressure sensor 20bar Abs. Bridge out., TO5	5.258	4.773	4.287	4.045
SPD015GA		Pressure sensor 0.34-6.89bar, Gauge, Analog out., DIP	10.387	9.428	8.470	7.990
SPD002GAsil		Pressure sensor 0-0.137bar, Gauge, Analog out., SIL	10.859	9.857	8.854	8.353
SPD015AAsil		Pressure sensor 0.15-1.2bar, Absolute, Analog out., SIL	11.998	10.890	9.783	9.229



SMTIR9902

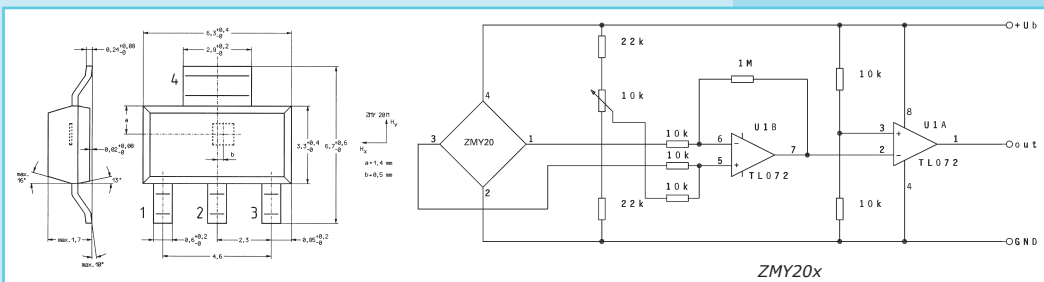


SMTUT103



SPDxxxG

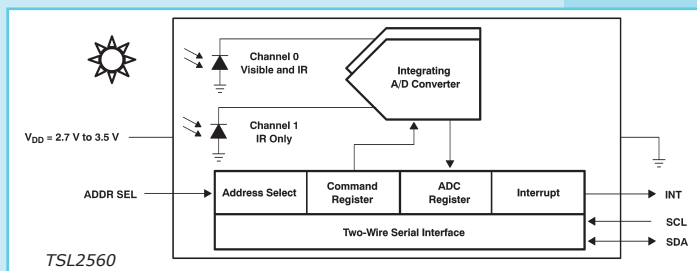
			1-4	5-24	25-99	100+
DS1624S	WSO8	13-bits Temp. sensor, ±0.5°C, 256byte E2, 5V	6.265	5.795	5.482	5.221
ZMC10	DIP14	Current sensor 10A, 100kHz, resistive bridge 1.7k, 12V	5.579	4.936	4.292	
ZMY20	SOT223	Magnetic sensor 4.7(mV/V)/(kA/m), 1.0MHz, 12V	1.863	1.648	1.433	
ZMY20M	SOT223	Magn. sensor with a magnet 5.5(mV/V)/(kA/m), 1.0MHz, 12V	3.109	2.750	2.392	



ZMY20x

Intelligent Optical Sensors

			1+	5-24	25-99	100+
TSL1402RE		Linear array 256x1, 400dpi, 3-5V	13.868	12.862	11.967	11.184
TSL2561T		Ambient light sensor, I2C bus, 2.7-3.6V	2.102	1.868	1.666	1.557
TCS230DJ	SO8	Sensor RGB 8x8, Light-to-Frequency, 2.7-5.5V	4.348	3.865	3.446	3.221
TSL1401RE	DIP8	Linear array 128x1, 400dpi, 3-5V	6.018	5.349	4.770	4.458
TSL2550DJ	SO8	Ambient light sensor, SMBus, 2.7-5.5V	2.579	2.293	2.044	1.911
TSL230BRP		Light-to-frequency 320-1050nm, 5%, 2.7-5.5V	5.280	4.694	4.185	3.911
TSL254R		Light-to-Voltage 350-1000nm, 1.1mA, 2.7-5.5V	2.306	2.050	1.828	1.708
TSL202RB		Linear array 128x1, 200dpi, 4.5-5.5V	12.902	11.966	11.133	10.405



TSL2560

Intelligent Optical Sensors

			1+	5-24	25-99	100+
TSL237S	SIP3	Light-to-freq. 320-1050nm, 2.7-5.5V $t_r=2ns$	2.794	2.484	2.215	2.070
TSL250R	SIP3	Light-to-Volt. 350-1000nm, 1.1mA, 2.7-5.5V, $t_r=260ns$	1.799	1.599	1.425	1.332
TSL201RB		Linear array, 64x1, 200dpi, 4.5-5.5V	5.119	4.550	4.057	3.792
TSL210RB		Linear array, 640x1, 200dpi, 4.5-5.5V	38.390	36.438	34.486	32.534
TSL257		Light-to-Voltage 350-1000nm, 1.9mA 2.7-5.5V $t_r=160ns$	1.430	1.271	1.133	1.059



TSL257/237



TSL1402/202R



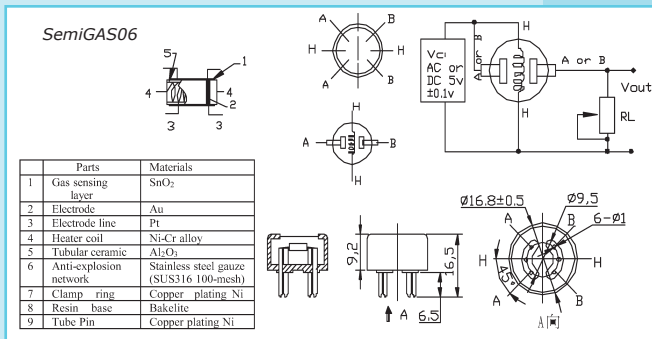
TSL2xx/14xx



TCS230D

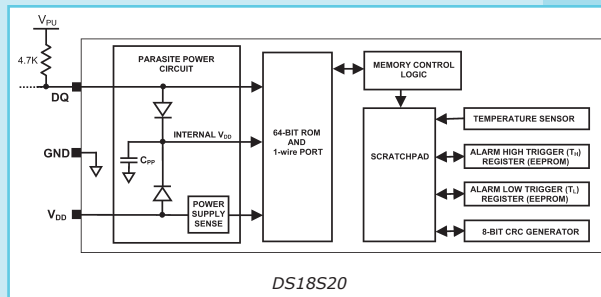
Gas Sensors

			1-4	5-24	25-99	100+
SemiGAS 04		Gas sensor, natural gas&methane 200-10 000 ppm	2.128	1.973	1.836	1.716
SemiGAS 06		Gas sensor, LPG, iso-butane&propane 200-10 000 ppm	2.660	2.467	2.295	2.145
TGS 813-A00		Gas sensor, LPG, methane&natural gas, 500-10 000 ppm	19.694	18.264	16.994	15.882



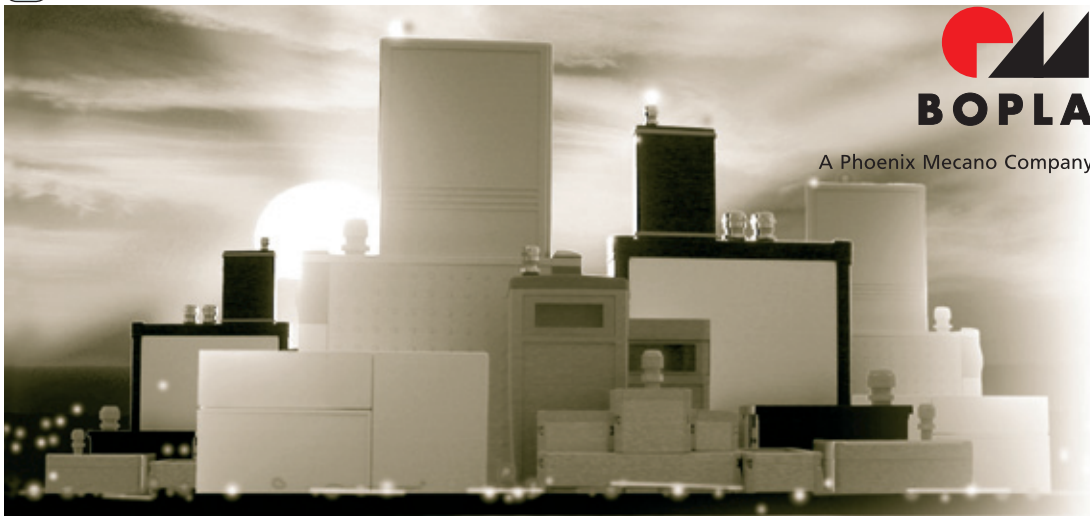
iButton/1-WIRE

			1-4	5-24	25-99	100+
DS1402D-DR8		Blue Dot Receptor to RJ11 cable, 2.4m	9.236	8.566	7.970	7.449
DS1822	TO92	9-12-bits Temp. sensor, 1-Wire Econo, $\pm 2^\circ C$, 3.0-5.5V	2.923	2.711	2.523	2.357
DS1822Z SMD	SO8	9-12-bits Temp. sensor, 1-Wire Econo, $\pm 2^\circ C$, 3.0-5.5V	2.923	2.711	2.523	2.357
DS18B20	TO92	9-12-bits Progr. Temp. sensor, 1-Wire, $\pm 0.5^\circ C$, 3.0-5.5V	3.812	3.536	3.290	3.074
DS18S20	TO92	9-bits Temp. sensor, 1-Wire, $\pm 0.5^\circ C$, 3.0-5.5V	3.812	3.536	3.290	3.074
DS1821	PR35	8-bits Temp. sensor, 1-Wire, $\pm 1.0^\circ C$, 2.7-5.5V	4.770	4.423	4.116	3.846
DS1921H-F5#	F3 (Can)	Thermochron iButton, 0.125°C, RTC, 15°C+46°C	25.248	23.416	21.787	20.362
DS1921Z-F50	F3 (Can)	Thermochron iButton, 0.125°C, RTC, -5°C+26°C	25.248	23.416	21.787	20.362
DS1921G-F50	F5 (Can)	Thermochron iButton, 0.5°C, RTC, -40°C+85°C	25.248	23.416	21.787	20.362
DS1923-F5	F5 (Can)	8-bits Hygrochron iButton, $\pm 0.5^\circ C @ -10^\circ C + 65^\circ C$	91.626	84.975	79.064	73.892
DS1990R-F3#	F3 (Can)	iButton Serial Number F3, 2.8-6.0V, -40°C+85°C	2.646	2.454	2.284	2.134
DS1990R-F5#	F5 (Can)	iButton Serial Number F5, 2.8-6.0V, -40°C+85°C	2.646	2.454	2.284	2.134
DS1994L-F5	F5 (Can)	iButton Memory & Time 4kbit R/W F5	14.881	13.801	12.841	12.001
DS1996L-F5	F5 (Can)	iButton Memory & Time 64kbit R/W F5	13.208	12.249	11.397	10.652
DS2401	TO92	1-Wire Silicon Serial Number, 64-bit ROM, 2.8-6.0V	1.364	1.265	1.177	1.100
DS2405	TO92	1-Wire PIO Addressable Switch, 64-bit ROM, 2.8-6.0V	1.627	1.509	1.404	1.312
DS2408S	SO16	1-Wire 8-Channel PIO Addressable Switch, 64-bit ROM	6.022	5.585	5.197	4.857
DS2409P	TSOC6	1-Wire MicroLAN Coupler, 16.3kbits/s, 4.5-5.5V	3.288	3.049	2.837	2.651




BOPLA

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BOS-STREAMLINE
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COMBIBAC



COMBICARD 1000-3000
COMBICARD 5000-7000



COMBINORM
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ELEGANT
ELEMENT
ELESETT
ELETEC
EUROMAS
EUROMAS II



FUTURA/PORTAS
INTERCARD

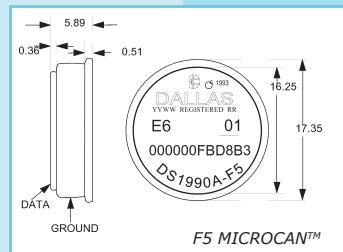
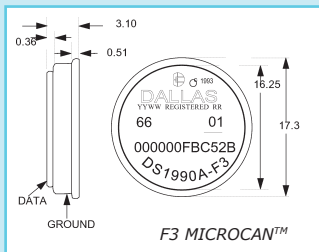


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ULTRAMAS
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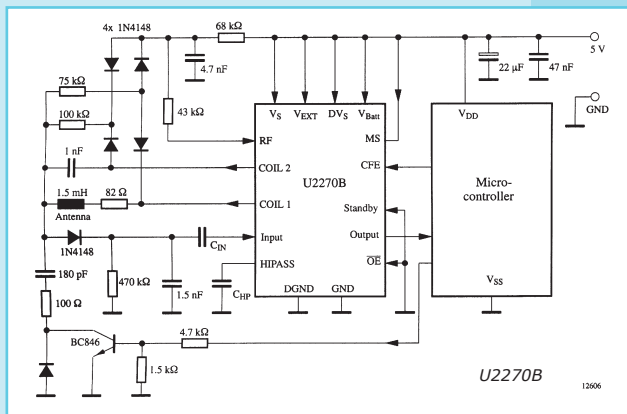
iButton/1 WIRE

			1-4	5-24	25-99	100+
DS2417P	TSOC6	1-Wire MicroLAN RTC, 16.3kbits/s, 2.5-5.5V	1.973	1.829	1.702	1.591
DS2450S	SO8	1-Wire 16-bits Quad ADC, Progr. Input 2.56V, 5.12V	6.361	5.900	5.489	5.130
DS2480B	SO8	1-Wire RS-232 or UART Serial Line Driver, 4.5-5.5V	4.981	4.619	4.298	4.017
DS2423P	TSOC6	1-Wire 4kbit SRAM with 4x32-bit, read-only Counter	8.811	8.171	7.603	7.105
DS9092+		iButton panel-mount probe, solid face	8.577	7.955	7.401	6.917
DS9092RG/no brand		iButton port with groove for Blue Dot Receptors	1.631	1.512	1.407	1.315
DS9092T		iButton panel-mount probe with tactile feedback	15.328	14.215	13.226	12.361
DS9093A		iButton snap-in angled BLACK fob for F5 MicroCan	0.852	0.757	0.675	0.631
DS9093N/no brand		iButton angled BLACK fob for F5 MicroCan	1.261	1.121	1.000	0.934
DS9094-SM5		iButton SM METAL CLIP for F5	1.846	1.712	1.593	1.488
DS9097E		COM Port Adapter, EPROM compatible, +12V power jack	37.971	35.215	32.765	30.622
DS9097U-009		1-Wire universal serial adapter, with DS2502 ID chip	27.993	25.962	24.156	22.575
DS9097U-S09		1-Wire universal serial adapter, no ID chip	27.484	25.489	23.716	22.164
DS9490R		1-W to USB Port Adapter	27.106	25.138	23.390	21.860
DS9502P	TSOC6	1-Wire ESD Protection Zener Diode, 7.5V	0.823	0.732	0.652	0.610
DS2438Z	SO8	1-Wire Smart Battery Monitor, 64-bit ROM	3.846	3.567	3.319	3.102
DSTINIM400		DS80C400 Network Microcontroller Eval. Board	106.921			
DSTINIS400		DSTINIS400 Sockets Evaluation Board	53.338			



Security components

			1-4	5-24	25-99	100+	500+
MC145026P	DIP16	Encoder	0.608	0.567	0.526	0.489	0.457
HCS200/SN	NS08	Code-Hopping Encoder, 32-bit, 3.5-13V SMD	1.157	1.050	0.943	0.890	
HCS301/SN	NS08	Code-Hopping Encoder, 32-bit, 3.5-13V SMD	1.287	1.168	1.049	0.990	
HCS360/SN	NS08	Code-Hopping Encoder, 32-bit, 2-6.3V SMD	1.664	1.510	1.357	1.280	
HCS410/SN	NS08	Transponder 2-6.3V SMD	1.898	1.723	1.548	1.460	
HCS500/P	DIP8	Code-Hopping Decoder 3 functions, 3.0-5.5V	2.054	1.864	1.675	1.580	
HCS500/SM	SO8	Code-Hopping Decoder 3 functions, 3.0-5.5V	2.145	1.947	1.749	1.650	
HCS515/P	DIP18	Code-Hopping Decoder with serial interface	2.496	2.266	2.035	1.920	
2SC4043S ROHM	SC72	NPN 20/11V 50mA 0.3W 3.2GHz 3.5dB	0.059	0.053	0.049	0.0432	0.0411
2SC3837K ROHM SMD	SC59	NPN 30/18V 50mA 0.2W 1.5GHz 4.5dB	0.090	0.081	0.074	0.0692	0.0640
2SC3838K ROHM SMD	SC59	NPN 20/11V 50mA 0.2W 3.2GHz 3.5dB	0.085	0.076	0.070	0.0654	0.0606
2SC4083 ROHM SMD	SOT323	NPN 20/11V 50mA 0.2W 3.2GHz 3.5dB	0.051	0.046	0.042	0.0393	0.0364
ISD4002-150S	SO28	voice rec/play 150sec; Sample Rate 6.4 KHz	10.093	9.360	8.709	8.139	
ISD4003-4MP	DIP28	voice rec/play 4 min; Sample Rate 8.0 KHz	7.639	7.084	6.591	6.160	
ZSD100D8	DIP8	Security Siren Bi-tone Driver, 4.0-18V	0.726	0.661	0.581	0.538	
U2270B	SO16	Read/write transponders base station IC	2.578	2.391	2.225	2.079	



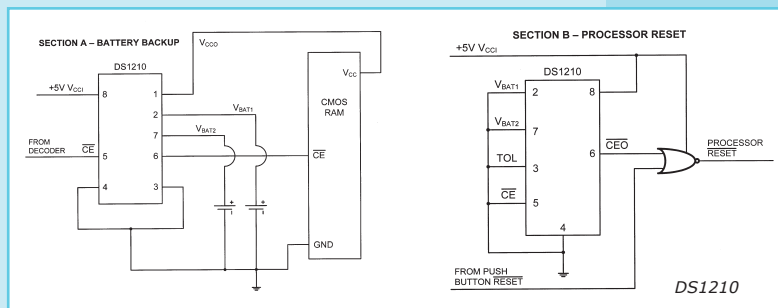
SMART CARDS

		1-4	5-24	25-99	100+
CARD+KEY TAG EM4100 GREY	RFID, 125kHz, 64bit read-only CID code drop tag	0.919	0.817	0.729	0.681
CARD+KEY TAG EM4100 COLOURED	RFID, 125kHz, 64bit read-only CID code drop tag	0.959	0.853	0.760	0.711
CARD EM4100 ISO	RFID, 125kHz, 64bit read-only CID code ISO	0.979	0.870	0.776	0.725
CARD EM4100 Clamshell	RFID, 125kHz, 64bit read-only CID, Clamshell	0.682	0.606	0.541	0.505
CARD+KEY TAG MC66xx	RFID, 125kHz, 64bit read-only CID code drop tag	0.799	0.711	0.634	0.592
CARD MC66xx ISO	RFID, 125kHz, 64bit read-only CID code ISO	0.799	0.711	0.634	0.592
CARD MC66xx Clamshell	RFID, 125kHz, 64bit read-only CID, Clamshell	0.689	0.613	0.546	0.510
CARD SLE4442 ISO	256bytes EEPROM w/write protect and security	1.600	1.422	1.268	1.185
CARD SLE4428 ISO	1K EEPROM with w/write protect and security	1.937	1.722	1.535	1.435
CARD Temic5557 MAGNETIC	RFID 125kHz, 330bit read-write, Mag. Strip, ISO	1.759	1.564	1.394	1.303
CARD Temic5557 Clamshell	RFID, 125kHz, 330bit read-write, Clamshell	1.255	1.116	0.995	0.930
CARD Temic5567 ISO	RFID, 125kHz, 330bit read-write, ISO, reset diode	1.655	1.472	1.312	1.226
C702 10M 008 206 4	connector ISO smart card low profile	2.508	2.230	1.988	1.858
Micro SD Socket Hinge	Micro SD Socket Hinge Type, SMD	0.541	0.481	0.429	0.401
Micro SD Socket PP T1	Micro SD Socket Push-Push, Type 1 H=1.83mm, SMD	0.897	0.798	0.711	0.665
Micro SD Socket PPL T3	Micro SD Socket Push-Pull Type 3, SMD	0.785	0.698	0.622	0.582



Miscellaneous

		1-4	5-24	25-99	100+
DG444CJ	DIP16 Quad SPST analog switches	2.148	1.992	1.854	1.733
MAX4610CSD	NSO14 Low-voltage 4 SPST CMOS analog switches	1.289	1.195	1.112	1.040
MAX662ACPA	DIP8 Flash Memory Programming Supply 12V, 30mA	3.533	3.277	3.049	2.849
MAX6675ISA	S08 K-Thermocouple-to-Digital Converter (0°C to +1024°C)	9.671	9.180	8.688	8.196
HT9200A	DIP8 DTMF tone generator	0.378	0.343	0.308	0.290
UAA2016P	DIP8 Triac Control Circuit	1.300	1.180	1.060	1.000
LS1240A	DIP8 2 tone ring generator	0.343	0.307	0.287	0.254
DS1210	DIP8 Battery back up/RAM controller	2.987	2.770	2.578	2.409



ZXCD1000MOKIT	ZXCD1000+2xZXM64P03X+2xZXM64N03X+ZTX692B	8.100	7.165	6.231	
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CMOS ICs 4000 Series

		1-4	5-24	25-99	100+
4001	4 x 2 INP NOR	0.144	0.131	0.115	0.106
4007	COMPL.PAIR+INV	0.185	0.168	0.148	0.137
4010	6 NON-INV.BUFFER	0.254	0.231	0.203	0.188
4011	4 x 2 INP NAND	0.140	0.128	0.112	0.104
4013	2 D-TYPE FLIP-FLOP	0.140	0.128	0.112	0.104
4014	8-STAGE STATIC SHIFT REG.	0.188	0.171	0.150	0.139
4015	2 x 4-STAGE STATIC SHIFT REG.	0.205	0.187	0.164	0.152
4016	4 BILATERAL SWITCH	0.168	0.153	0.134	0.124
4017	5 STAGE JOHNSON DECADE COUNTER	0.185	0.169	0.148	0.137
4018	PRESETTABLE DIVIDE BY 'N' COUNTER	0.334	0.304	0.267	0.247
4020	14-STAGE BINARY/RIPPLE COUNTER	0.225	0.205	0.180	0.166
4021	8-STAGE STATIC SHIFT REG.	0.205	0.187	0.164	0.152
4023	3 x 3 INP NAND	0.171	0.156	0.137	0.127
4024	7-STAGE BINARY/RIPPLE COUNTER	0.171	0.156	0.137	0.127
4025	3 x 3 INP NOR	0.160	0.146	0.128	0.119

CMOS ICs 4000 Series		1-4	5-24	25-99	100+
4027	2 J-K FLIP-FLOP	0.180	0.164	0.144	0.133
4028	BCD TO DECIMAL DECODER	0.231	0.210	0.185	0.171
4029	PRESETTABLE BIN/DEC UP/DOWN COUNTER	0.309	0.281	0.247	0.229
4030	4 EXCLUSIVE-OR	0.216	0.197	0.173	0.160
4040	12-STAGE BINARY/RIPPLE COUNTER	0.202	0.184	0.162	0.150
4042	4 CLOCKED D LATCH	0.238	0.217	0.190	0.176
4044	4 x R/S LATCH TRIGGERS, 3-STATE OUTPUT	0.248	0.226	0.198	0.183
4046	MICROPOWER PHASE-LOCKED LOOP	0.323	0.294	0.258	0.239
4047	MONOSTABLE/ASTABLE MULTIVIBRATOR	0.196	0.179	0.157	0.146
4049	6 INVERTING BUFFER/CONVERTER	0.160	0.146	0.128	0.119
4050	6 NON-INVERTING BUFFER/CONVERTER	0.181	0.165	0.145	0.134
4051	8-CHANNEL AN. MULTIPLEXER/DEMUTIPLEXER	0.171	0.156	0.137	0.127
4052	2x4-CHANNEL AN. MULTIPLEXER/DEMUTIPLEXER	0.182	0.166	0.146	0.135
4053	3x2-CHANNEL AN. MULTIPLEXER/DEMUTIPLEXER	0.171	0.156	0.137	0.127
4060	14-STAGE COUNTER/DIVIDER AND OSCILLATOR	0.171	0.156	0.137	0.127
4066	4 BILATERAL SWITCHES	0.146	0.133	0.117	0.108
4069	6 INVERTERS	0.154	0.141	0.124	0.114
4070	4 EXCLUSIVE-OR GATE	0.231	0.210	0.185	0.171
4071	4x2-INPUT OR GATE	0.177	0.161	0.142	0.131
4081	4x2-INP AND	0.138	0.125	0.110	0.102
4082	2x4-INP AND	0.225	0.205	0.180	0.166
4093	4x2-INP NAND SCHMITT TRIGGER	0.136	0.124	0.109	0.101
4094	8-STAGE SHIFT-AND-STORE BUS REG	0.171	0.156	0.137	0.127
4099	8-BIT ADDRESSABLE LATCH	0.230	0.210	0.184	0.171
4502	STROBED 6 INVERTER/BUFFER	0.154	0.141	0.124	0.114
4510	PRESETTABLE 4-BIT BCD UP/DOWN COUNTER	0.267	0.243	0.214	0.198
4511	BCD TO 7 SEGMENT LATCH-DECODER/DRIVER	0.143	0.130	0.115	0.106
4512	8-CH. DATA SELECTOR WITH 3-STATE OUTP	0.371	0.338	0.297	0.275
4515	4-BIT LATCH/4 TO 16 LINE DEC. (OUT LOW)	1.043	0.950	0.834	0.772
4516	PRESETTABLE 4-BIT BINARY UP/DOWN COUNTER	0.393	0.358	0.314	0.291
4518	2 BCD 4 BIT UP COUNTERS	0.202	0.184	0.162	0.150
4520	2 BINARY UP COUNTER	0.202	0.184	0.162	0.150
4521	24 STAGE DIVIDER (Q18..Q24)	0.646	0.588	0.517	0.478
4538	2 PRECISION MONOSTABLE MULTIVIBRATOR	0.182	0.166	0.146	0.135
4541	PROGRAMMABLE TIMER	0.182	0.166	0.146	0.135
4543	BCD-TO-7 SEGMENT LATCH/DECODER/DRIVER	0.233	0.212	0.186	0.173
40106=4584	6 SCHMITT TRIGGERS	0.168	0.153	0.135	0.125
CMOS ICs 4000 Series SMD		1-4	5-24	25-99	100+
4001 SMD	4 x 2 INP NOR	0.121	0.110	0.097	0.089
4007 SMD	COMPL.PAIR+INV	0.145	0.132	0.116	0.108
4011 SMD	4 x 2 INP NAND	0.121	0.110	0.097	0.089
4013 SMD	2 D FLIP-FLOP	0.138	0.125	0.110	0.102
4017 SMD	5 STAGE JOHNSON DECADE COUNTER	0.211	0.192	0.168	0.156
4023 SMD	3 x 3 INP NAND	0.185	0.169	0.148	0.137
4024 SMD	7-STAGE BINARY/RIPPLE COUNTER	0.163	0.148	0.130	0.121
4040 SMD	12-STAGE BINARY/RIPPLE COUNTER	0.199	0.182	0.159	0.148
4049 SMD	6 INVERTING BUFFER/CONVERTER	0.154	0.141	0.124	0.114
4050 SMD	6 NON-INVERTING BUFFER/CONVERTER	0.174	0.159	0.139	0.129
4051 SMD	8-CHANNEL AN. MULTIPLEXER/DEMUTIPLEXER	0.146	0.133	0.117	0.108
4052 SMD	2x4-CHANNEL AN. MULTIPLEXER/DEMUTIPLEXER	0.146	0.133	0.117	0.108
4053 SMD	3x2-CHANNEL AN. MULTIPLEXER/DEMUTIPLEXER	0.146	0.133	0.117	0.108
4060 SMD	14-STAGE COUNTER/DIVIDER AND OSC.	0.191	0.174	0.153	0.141
4066 SMD	4 BILATERAL SWITCH	0.135	0.123	0.108	0.100
4069 SMD	6 INVERTER	0.142	0.129	0.113	0.105
4093 SMD	4x2-INP NAND SCHMITT TRIGGER	0.129	0.118	0.103	0.096
4094 SMD	8-STAGE SHIFT-AND-STORE BUS REG	0.146	0.133	0.117	0.108
4511 SMD	BCD TO 7 SEGMENT LATCH-DECODER/DRIVER	0.231	0.210	0.185	0.171
4541 SMD	PROGRAMMABLE TIMER	0.191	0.174	0.153	0.141
40106 SMD	6 SCHMITT TRIGGER	0.156	0.142	0.125	0.116
ICs 74HC Series		1-4	5-24	25-99	100+
74HC00	4x2-INP NAND	0.122	0.111	0.098	0.090
74HC02	4x2-INP NOR	0.124	0.113	0.099	0.092
74HC04	6 INVERTER	0.122	0.111	0.098	0.090
74HC05	6 INVERTER O.C.	0.138	0.126	0.111	0.102
74HC08	4x2-INP AND	0.122	0.111	0.098	0.090
74HC10	3x3-INP NAND	0.133	0.121	0.107	0.099
74HC11	TRIPLE 3 INPUT AND	0.125	0.114	0.100	0.092
74HC14	6 INVERTING SCHMITT TRIGGER	0.119	0.108	0.095	0.088
74HC30	8-INP NAND	0.137	0.125	0.110	0.101
74HC32	4x2-INP OR	0.133	0.121	0.107	0.099
74HC42	BCD TO DECIMAL DECODER(4 TO 10)	0.276	0.251	0.221	0.204
74HC74	2 D FLIP-FLOP WITH SET AND RESET	0.122	0.111	0.098	0.090
74HC75	4 BISTABLE TRANSPARENT LATCH	0.263	0.240	0.211	0.195
74HC85	4-BIT MAGNITUDE COMPARATOR	0.249	0.227	0.199	0.184
74HC86	4x2-INP EXCLUSIVE OR	0.134	0.122	0.107	0.099
74HC123	2 RETRIGGERABLE MONOSTABLE	0.224	0.204	0.179	0.166
74HC125	4 BUFFERS/LINE DRIVER 3-STATE	0.153	0.139	0.122	0.113
74HC126	4 BUFFERS 3-STATE	0.213	0.194	0.170	0.157

ICs 74HC Series		1-4	5-24	25-99	100+
74HC132	4x2-1NP NAND SCHMITT TRIGGER	0.162	0.147	0.129	0.120
74HC137	3 TO 8 DEC. W ADDR.LATCHES (INV OUTP)	0.158	0.144	0.126	0.117
74HC138	3-TO-8 LINE DECODER	0.171	0.156	0.137	0.127
74HC139	DUAL 2 TO 4 LINE DECODER	0.204	0.186	0.163	0.151
74HC148	8 TO 3 LINE PRIORITY ENCODER	0.224	0.204	0.179	0.166
74HC151	8-CHANNEL MULTIPLEXER	0.197	0.180	0.158	0.146
74HC154	4-TO-16 LINE DECODER/DEMULTIPLEXER	0.674	0.614	0.539	0.499
74HC157	4x2-1NP MULTIPLEXER	0.190	0.173	0.152	0.141
74HC161	PRESETTABLE SYNCHRONOUS BINARY COUNTER	0.229	0.209	0.183	0.170
74HC163	PRESETTABLE SYNCHR. 4-BIT DEC/BINARY COUNTER	0.202	0.184	0.162	0.150
74HC164	8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REG	0.193	0.176	0.154	0.143
74HC165	8-BIT PAR.IN/SER. OUT SHIFT REG.	0.184	0.168	0.147	0.136
74HC166	8-BIT PAR.IN/SER. OUT SHIFT REG. W RESET	0.263	0.240	0.211	0.195
74HC174	6 D FLIP-FLOPS WITH RESET	0.193	0.176	0.154	0.143
74HC175	4 D-TYPE FLIP-FLOP WITH CLEAR	0.200	0.182	0.160	0.148
74HC191	REVERSABLE 4 BIT BINARY UP/DOWN COUNTER	0.321	0.293	0.257	0.238
74HC193	SYNCHRONOUS BINARY 4 BIT UP/DOWN COUNTERS	0.266	0.243	0.213	0.197
74HC240	8 INVERTING 3-STATE BUFFER/LINE DRIVER	0.213	0.194	0.170	0.157
74HC238	3-TO-8 LINE DECODER/DEMULTIPLEXER	0.215	0.196	0.172	0.160
74HC241	8x3-STATE BUFFER 1 LOW AND 1 HIGH ENABLE 1NP.	0.232	0.211	0.185	0.172
74HC244	8x3-STATE BUFFER 2 LOW ENABLE 1NP.	0.187	0.170	0.150	0.139
74HC245	8x3-STATE TRANSCEIVER	0.193	0.176	0.154	0.143
74HC251	8-CHANNEL 3-STATE MULTIPLEXER	0.210	0.191	0.168	0.155
74HC257	4x2-CHANNEL 3-STATE MULTIPLEXER	0.253	0.231	0.202	0.187
74HC259	8-BIT ADDR. LATCH/3-TO-8 LINE DECODER	0.207	0.189	0.166	0.153
74HC273	8 D FLIP-FLOPS WITH CLEAR	0.187	0.170	0.150	0.139
74HC367	HEX BUS LINE DRIVER	0.184	0.168	0.147	0.136
74HC373	8 D-TYPE LATCH 3-STATE	0.187	0.170	0.150	0.139
74HC374	8 D-TYPE FLIP-FLOP 3-STATE	0.187	0.170	0.150	0.139
74HC377	OCTAL D-TYPE FLIP FLOP WITH ENABLE	0.207	0.189	0.166	0.153
74HC390	2x4-BIT DECADE COUNTER	0.242	0.221	0.194	0.179
74HC393	2x4-BIT BINARY COUNTER	0.198	0.181	0.159	0.147
74HC540	OCTAL BUFFER AND LINE DRIVER INVERTED	0.198	0.181	0.159	0.147
74HC541	8x3-STATE BUFFER NON INVERTING	0.198	0.181	0.159	0.147
74HC573	8 D-TYPE TRANSPARENT LATCH 3-STATE	0.187	0.170	0.150	0.139
74HC574	8 D-TYPE EDGE TRIGGERED FLIP-FLOP 3-STATE	0.187	0.170	0.150	0.139
74HC595	8 BIT SERIAL TO PARALLEL/SERIAL SHIFT REGISTER	0.187	0.170	0.150	0.139
74HC597	8-BIT SHIFT REG. WITH 1NP. FLIP/FLOPS PAR.IN SER.OUT	0.199	0.182	0.159	0.148
74HC688	8-BIT MAGNITUDE COMPARATOR	0.329	0.300	0.263	0.244
74HC4040	12-BIT BINARY COUNTER	0.258	0.235	0.206	0.191
74HC4046	PHASE-LOCKED-LOOP+VCO	0.342	0.311	0.273	0.253
74HC4051	8-CHANNEL AN. MULTIPLEXER/DEMULTIPLEXER	0.198	0.181	0.159	0.147
74HC4052	2x4-CHANNEL AN.MULTIPLEXER/DEMULTIPLEXER	0.253	0.231	0.203	0.188
74HC4053	3x2-CHANNEL AN.MULTIPLEXER/DEMULTIPLEXER	0.208	0.189	0.166	0.154
74HC4060	14-STAGE BINARY COUNTER/OSCILLATOR	0.221	0.201	0.177	0.164
74HC4066	4 ANALOG SWITCH	0.163	0.149	0.131	0.121
74HC4094	8-STAGE SHIFT-AND-STORE BUS REG. SER.IN PAR.OUT	0.187	0.170	0.150	0.139
74HC4538	2 PRECISION RETRIGGERABLE MONOST. MULTIVIBRATOR	0.229	0.209	0.183	0.170
ICs 74HC Series SMD		1-4	5-24	25-99	100+
74HC00 SMD	4x2-1NP NAND	0.107	0.097	0.085	0.079
74HC02 SMD	4x2-1NP NOR	0.107	0.097	0.085	0.079
74HC04 SMD	6 INVERTER	0.107	0.097	0.085	0.079
74HC05 SMD	6 INVERTER O.C.	0.112	0.102	0.090	0.083
74HC08 SMD	4x2-1NP AND	0.112	0.102	0.090	0.083
74HC10 SMD	3x3-1NP NAND	0.112	0.102	0.090	0.083
74HC14 SMD	6 INVERTING SCHMITT TRIGGER	0.107	0.097	0.085	0.079
74HC27 SMD	3x3-1NP NOR	0.111	0.101	0.089	0.082
74HC30 SMD	8-1NP NAND	0.149	0.136	0.119	0.111
74HC32 SMD	4x2-1NP OR	0.107	0.097	0.085	0.079
74HC74 SMD	2 D FLIP-FLOP WITH PRESET AND CLEAR	0.107	0.097	0.085	0.079
74HC85 SMD	8-BIT MAGNITUDE COMPARATOR	0.225	0.205	0.180	0.166
74HC123 SMD	2 RETRIGGERABLE MONOSTABLE	0.180	0.164	0.144	0.133
74HC125 SMD	4 BUFFERS/LINE DRIVER 3-STATE	0.126	0.115	0.101	0.094
74HC126 SMD	4 BUFFERS 3-STATE	0.126	0.115	0.101	0.094
74HC132 SMD	4x2-1NP NAND SCHMITT TRIGGER	0.126	0.115	0.101	0.094
74HC138 SMD	3-TO-8 LINE DECODER	0.146	0.133	0.117	0.108
74HC139 SMD	DUAL 2-TO-4 LINE DECODER	0.149	0.136	0.119	0.110
74HC154 SMD	4-TO-16 LINE DECODER/DEMULTIPLEXER	0.391	0.356	0.313	0.290
74HC157 SMD	4x2-1NP MULTIPLEXER	0.185	0.169	0.148	0.137
74HC161 SMD	PRESETTABLE SYNCHRONOUS BINARY COUNTER	0.194	0.176	0.155	0.143
74HC164 SMD	8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REG	0.154	0.141	0.124	0.114
74HC165 SMD	8-BIT PAR.IN/SER. OUT SHIFT REG.	0.154	0.141	0.124	0.114
74HC193 SMD	SYNCHRONOUS BINARY UP/DOWN COUNTERS	0.287	0.261	0.229	0.212
74HC244 SMD	8x3-STATE BUFFER	0.168	0.153	0.135	0.125
74HC245 SMD	8x3-STATE TRANSCEIVER	0.168	0.153	0.135	0.125
74HC251 SMD	8-CHANNEL 3-STATE MULTIPLEXER	0.169	0.154	0.136	0.126
74HC273 SMD	8 D FLIP-FLOPS WITH CLEAR	0.175	0.159	0.140	0.129
74HC373 SMD	8 D-TYPE LATCH 3-STATE	0.175	0.159	0.140	0.129
74HC374 SMD	8 D-TYPE FLIP-FLOP 3-STATE	0.180	0.164	0.144	0.133
74HC390 SMD	2x4-BIT DECADE COUNTER	0.209	0.190	0.167	0.154

ICs 74HC Series SMD		1-4	5-24	25-99	100+
74HC540 SMD	OCTAL BUFFER AND LINE DRIVER INVERTED	0.180	0.164	0.144	0.133
74HC541 SMD	8 BUFFER/LINE DRIVER 3-STATE	0.180	0.164	0.144	0.133
74HC573 SMD	8 D-TYPE LATCH 3-STATE	0.180	0.164	0.144	0.133
74HC574 SMD	8 D-TYPE EDGE-TRIGG. FLIP-FLOP 3-STATE	0.180	0.164	0.144	0.133
74HC595 SMD	8 BIT SERIAL TO PARALLEL SHIFT REGISTER	0.141	0.128	0.113	0.104
74HC597 SMD	8-BIT SHIFT REG. WITH INP. FLIP/FLOPS PAR.IN SER.OUT	0.219	0.199	0.175	0.162
74HC4040 SMD	12-BIT BINARY COUNTER	0.240	0.218	0.192	0.178
74HC4046 SMD	PHASE-LOCKED-LOOP+VCO	0.355	0.323	0.284	0.263
74HC4050 SMD	6 NON-INVERTING BUFFER/CONVERTER	0.180	0.164	0.144	0.133
74HC4051 SMD	8-CHANNEL AN. MULTIPLEXER/DEMULTIPLEXER	0.157	0.143	0.126	0.116
74HC4052 SMD	2x4-CHANNEL AN.MULTIPLEXER/DEMULTIPLEXER	0.157	0.143	0.126	0.116
74HC4053 SMD	3x2-CHANNEL AN.MULTIPLEXER/DEMULTIPLEXER	0.157	0.143	0.126	0.116
74HC4060 SMD	14-STAGE BINARY COUNTER	0.157	0.143	0.126	0.116
74HC4066 SMD	4 BILATERAL SWITCH	0.157	0.143	0.126	0.116
74HC4094 SMD	8-STAGE SHIFT-AND-STORE BUS REG	0.157	0.143	0.126	0.116
ICs 74HCT Series		1-4	5-24	25-99	100+
74HCT00	4x2-INP NAND	0.132	0.120	0.105	0.097
74HCT02	4x2-INP NOR	0.132	0.120	0.105	0.097
74HCT04	6 INVERTER	0.132	0.120	0.105	0.097
74HCT05	6 INVERTER O. C.	0.200	0.182	0.160	0.148
74HCT08	4x2-INP AND	0.132	0.120	0.105	0.097
74HCT10	3x3-INP NAND	0.131	0.120	0.105	0.097
74HCT11	3x3-INP AND	0.093	0.085	0.075	0.069
74HCT14	6 INVERTING SCHMITT TRIGGER	0.128	0.116	0.102	0.094
74HCT30	8-INP NAND	0.200	0.182	0.160	0.148
74HCT32	4x2-INP OR	0.134	0.122	0.107	0.099
74HCT74	2 D FLIP-FLOP W PRESET/CLEAR	0.134	0.122	0.107	0.099
74HCT85	4-BIT MAGNITUDE COMPARATOR	0.233	0.212	0.186	0.172
74HCT86	4x2-INP EXCLUSIVE OR	0.261	0.238	0.209	0.193
74HCT123	2 RETRIGGERABLE MONOSTABLE	0.236	0.215	0.188	0.175
74HCT125	4 BUFFERS/LINE DRIVER 3-STATE	0.203	0.185	0.162	0.150
74HCT126	4 BUFFERS 3-STATE	0.203	0.185	0.162	0.150
74HCT132	4x2-INP NAND SCHMITT TRIGGER	0.213	0.194	0.171	0.158
74HCT137	3-TO-8 LINE DEC. W ADDR.LATCHES(INV OUTP)	0.177	0.161	0.142	0.131
74HCT138	3-TO-8 LINE DECODER	0.173	0.158	0.138	0.128
74HCT139	DUAL 2-TO-4 LINE DECODER	0.250	0.228	0.200	0.185
74HCT151	8-CHANNEL MULTIPLEXER	0.250	0.228	0.200	0.185
74HCT157	4x2-INP MULTIPLEXER	0.276	0.252	0.221	0.205
74HCT161	SYNCHRONOUS BINARY COUNTER	0.247	0.225	0.198	0.183
74HCT164	8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REG	0.213	0.194	0.171	0.158
74HCT165	8-BIT PAR.-IN/SER.-OUT SHIFT REG.	0.230	0.209	0.184	0.170
74HCT166	8-BIT PAR.IN/SER. OUT SHIFT REG. W RESET	0.231	0.210	0.185	0.171
74HCT174	6 D FLIP-FLOPS WITH CLEAR	0.258	0.235	0.206	0.191
74HCT193	SYNCHRONOUS BINARY UP/DOWN COUNTERS	0.347	0.317	0.278	0.257
74HCT238	3-TO-8 LINE DECODER/DEMULTIPLEXER	0.331	0.302	0.265	0.245
74HCT240	INVERTING 8x3-STATE BUFFER	0.253	0.231	0.202	0.187
74HCT241	8x3-STATE BUFFER 1 LOW 1 HIGH ACTIVE ENABLE	0.208	0.189	0.166	0.154
74HCT244	8x3-STATE BUFFER 2 LOW ACTIVE ENABLE	0.193	0.176	0.154	0.143
74HCT245	8x3-STATE TRANSCEIVER	0.193	0.176	0.154	0.143
74HCT251	8-CHANNEL 3-STATE MULTIPLEXER	0.266	0.242	0.213	0.197
74HCT257	4x2-CHANNEL 3-STATE MULTIPLEXER	0.286	0.261	0.229	0.212
74HCT259	8-BIT ADDR. LATCH/3-TO-8 LINE DECODER	0.339	0.309	0.271	0.251
74HCT273	8 D FLIP-FLOPS WITH CLEAR	0.193	0.176	0.154	0.143
74HCT367	HEX BUS DRIVER	0.382	0.348	0.305	0.283
74HCT373	8 D-TYPE LATCH 3-STATE	0.193	0.176	0.154	0.143
74HCT374	8 D-TYPE FLIP-FLOP 3-STATE	0.193	0.176	0.154	0.143
74HCT377	OCTAL D-TYPE FLIP FLOP WITH ENABLE	0.279	0.255	0.224	0.207
74HCT541	8x3-STATE BUFFER	0.190	0.173	0.152	0.141
74HCT573	8 D-TYPE LATCH 3-STATE	0.190	0.173	0.152	0.141
74HCT574	3-STATE 8 D-TYPE EDGE-TRIGG.FLIP-FLOP	0.190	0.173	0.152	0.141
74HCT597	8-BIT SHIFT REGISTERS WITH FLIP-FLOPS	0.413	0.376	0.330	0.306
74HCT688	8-BIT MAGNITUDE COMPARATOR	0.337	0.307	0.270	0.250
74HCT4053	3x2-CHANNEL AN.MULTIPLEXER/DEMULTIPLEXER	0.179	0.163	0.143	0.133
74HCT4066	4 ANALOG SWITCH	0.227	0.207	0.181	0.168
74HCT4094	8-STAGE SHIFT-AND-STORE BUS REG	0.234	0.213	0.187	0.173
ICs 74HCT Series SMD		1-4	5-24	25-99	100+
74HCT00 SMD	4x2-INP NAND	0.112	0.102	0.090	0.083
74HCT02 SMD	4x2-INP NOR	0.112	0.102	0.090	0.083
74HCT04 SMD	6 INVERTER	0.112	0.102	0.090	0.083
74HCT05 SMD	6 INVERTER O.C.	0.198	0.180	0.158	0.146
74HCT08 SMD	4x2-INP AND	0.112	0.102	0.090	0.083
74HCT10 SMD	3x3-INP NAND	0.160	0.146	0.128	0.119
74HCT14 SMD	6 INVERTING SCHMITT TRIGGER	0.112	0.102	0.090	0.083
74HCT32 SMD	4x2-INP OR	0.112	0.102	0.090	0.083
74HCT74 SMD	2 D FLIP-FLOP W PRESET/CLEAR	0.123	0.112	0.098	0.091
74HCT125 SMD	4 BUFFERS/LINE DRIVER 3-STATE	0.140	0.128	0.112	0.104
74HCT126 SMD	4 BUFFERS 3-STATE	0.168	0.153	0.135	0.125
74HCT132 SMD	4x2-INP NAND SCHMITT TRIGGER	0.137	0.125	0.110	0.102

ICs 74HCT Series SMD			1-4	5-24	25-99	100+
74HCT138 SMD		3-TO-8 LINE DECODER	0.149	0.136	0.119	0.110
74HCT139 SMD		2x2-TO-4 LINE DECODER	0.149	0.136	0.119	0.110
74HCT151 SMD		8-CHANNEL MULTIPLEXER	0.227	0.207	0.182	0.168
74HCT164 SMD		8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REG	0.206	0.188	0.165	0.153
74HCT165 SMD		8-BIT PAR.IN/SER. OUT SHIFT REG.	0.222	0.202	0.177	0.164
74HCT245 SMD		8x3-STATE TRANSCEIVER	0.182	0.166	0.146	0.135
74HCT244 SMD		8x3-STATE BUFFER 2 ACTIVE LOW ENABLES	0.182	0.166	0.146	0.135
74HCT251 SMD		8-CHANNEL 3-STATE MULTIPLEXER	0.238	0.217	0.190	0.176
74HCT273 SMD		8 D FLIP-FLOPS WITH CLEAR	0.168	0.153	0.135	0.125
74HCT373 SMD		8 D-TYPE LATCH 3-STATE	0.182	0.166	0.146	0.135
74HCT374 SMD		8 D-TYPE FLIP-FLOP 3-STATE	0.184	0.168	0.147	0.136
74HCT541 SMD		8x3-STATE BUFFER	0.171	0.156	0.137	0.127
74HCT573 SMD		8 D-TYPE LATCH 3-STATE	0.171	0.156	0.137	0.127
74HCT574 SMD		8 D-TYPE EDGE-TRIGG.FLIP-FLOP 3-STATE	0.171	0.156	0.137	0.127
74HCT597 SMD		8-BIT SHIFT REGISTERS WITH FLIP-FLOPS	0.253	0.230	0.202	0.187
74HCT4052 SMD		2x4-CHANNEL AN.MULTIPLEXER/DEMULTIPLEXER	0.230	0.210	0.184	0.171
74HCT4053 SMD		3x2-CHANNEL AN.MULTIPLEXER/DEMULTIPLEXER	0.242	0.221	0.194	0.180
74HCT4066 SMD		4 BILATERAL SWITCH	0.194	0.176	0.155	0.143
74HCT4094 SMD		8-STAGE SHIFT-AND-STORE BUS REG	0.250	0.228	0.200	0.185
TTL Standard Series			1-4	5-24	25-99	100+
7406		HEX INVERTER/BUFFER 30 V O/P O.C.	0.354	0.322	0.283	0.262
7407		HEX BUFFER 30 V O/P O.C.	0.319	0.290	0.255	0.236
7407 SMD		HEX BUFFER 30 V O/P O.C.	0.355	0.323	0.284	0.263
TTL ICs - LS Series			1-4	5-24	25-99	100+
74LS00		QUAD 2 INPUT NAND	0.168	0.153	0.135	0.125
74LS02		QUAD 2 INPUT NOR	0.257	0.234	0.206	0.190
74LS04		HEX INVERTER	0.193	0.176	0.155	0.143
74LS05		HEX INVERTER O.C. HIGH VOLTAGE	0.224	0.204	0.179	0.166
74LS06		HEX INVERTER/BUFFER 30 V O.C.	0.284	0.258	0.227	0.210
74LS07		HEX BUFFER 30 V O.C.	0.363	0.330	0.290	0.269
74LS10		TRIPLE 3 INPUT NAND	0.195	0.178	0.156	0.144
74LS14		HEX INVERTER SCHMITT	0.276	0.252	0.221	0.205
74LS32		QUAD 2 INPUT OR	0.193	0.176	0.155	0.143
74LS38		QUAD 2 INPUT NAND BUFFER O.C.	0.245	0.223	0.196	0.181
74LS47		BCD SEVEN SEGMENT DECODER O.C.	0.382	0.348	0.305	0.283
74LS74		DUAL D-TYPE FLIP FLOP	0.281	0.256	0.225	0.208
74LS90		DECADE COUNTER	0.336	0.306	0.269	0.249
74LS93		4 BIT BINARY COUNTER	0.372	0.339	0.298	0.276
74LS123		DUAL MONOSTABLE MULTIVIBRATOR	0.508	0.463	0.407	0.377
74LS138		3 LINE TO 8 DECODER/DEMULTIPLEXER	0.284	0.258	0.227	0.210
74LS139		DUAL 2 LINE TO 4 LINE DECODER/DEMULTIPLEXER	0.238	0.216	0.190	0.176
74LS145		BCD DECIMAL DECODER/DRIVER 15 V O/P	0.277	0.252	0.221	0.205
74LS155		DUAL 2 TO 4 LINE DECODER	0.372	0.339	0.298	0.276
74LS163		SYNCHRONOUS BINARY COUNTER SYNC.	0.193	0.176	0.155	0.143
74LS164		8 BIT SHIFT REGISTER SER.IN PAR. OUT	0.285	0.260	0.228	0.211
74LS173		QUAD 3 STATE LATCH	0.458	0.417	0.367	0.339
74LS193		SYNC.UP/DOWN DUAL CLK COUNTER	0.409	0.373	0.327	0.303
74LS194		4 BIT BIDIR. UNIV. SHIFT REG.	0.425	0.388	0.340	0.315
74LS244		OCTAL 3 STATE DRIVER	0.349	0.318	0.280	0.259
74LS245		OCTAL 3 STATE BUS TRANSCEIVER	0.382	0.348	0.305	0.283
74LS247		BCD SEVEN SEGMENT DECODER O.C.	0.395	0.360	0.316	0.293
74LS257		QUAD 2 TO 1 LINE SELECTOR 3 ST. NON INV	0.239	0.217	0.191	0.177
74LS258		QUAD 2 TO 1 LINE SELECTOR 3 STATE INV	0.327	0.298	0.262	0.242
74LS273		OCTAL D-TYPE FLIP FLOP WITH CLEAR	0.284	0.258	0.227	0.210
74LS373		OCTAL TRANSPARENT LATCH	0.264	0.241	0.211	0.196
74LS07 SMD		HEX BUFFER 30 V O/P O.C.	0.363	0.330	0.290	0.269
EPROM			1-4	5-24	25-99	100+
27C256-100/120	DIP28	32k x 8 100/120ns	1.773	1.576	1.444	1.313
27C256-120 OTP	DIP28	32k x 8 100/120ns OTP	1.241	1.103	1.011	0.919
27C512-100/120	DIP28	64k x 8 100/120ns	2.216	1.970	1.805	1.641
27C512 PLCC OTP	PLCC32	64k x 8 OTP	1.223	1.087	0.997	0.906
27C010-100/120	DIP32	128k x 8 100/120ns	2.570	2.285	2.094	1.904
27C010 PLCC OTP	PLCC32	128k x 8 OTP	1.666	1.481	1.358	1.234
27C020-100/120	DIP32	256k x 8 100/120ns	3.900	3.466	3.177	2.889
27C020 PLCC OTP	PLCC32	256k x 8 OTP	2.166	1.925	1.764	1.604
27C040-100/120	DIP32	512k x 8 100/120ns	5.406	4.806	4.405	4.005
27C040-12PC PDIP OTP	DIP32	512k x 8 120ns OTP	2.287	2.033	1.863	1.694
27C080-100/120	DIP32	1024k x 8 100/120ns	6.558	5.830	5.344	4.858
27C1024 PLCC OTP	PLCC44	64k x 16 70ns OTP	2.425	2.156	1.976	1.797
EEPROM - I2C BUS			1-24	25-99	100-499	500+
24C02	DIP8	EEPROM 2K I2C bus	0.233	0.212	0.180	0.167
24C02 SMD	S08	EEPROM 2K I2C bus	0.221	0.200	0.170	0.158

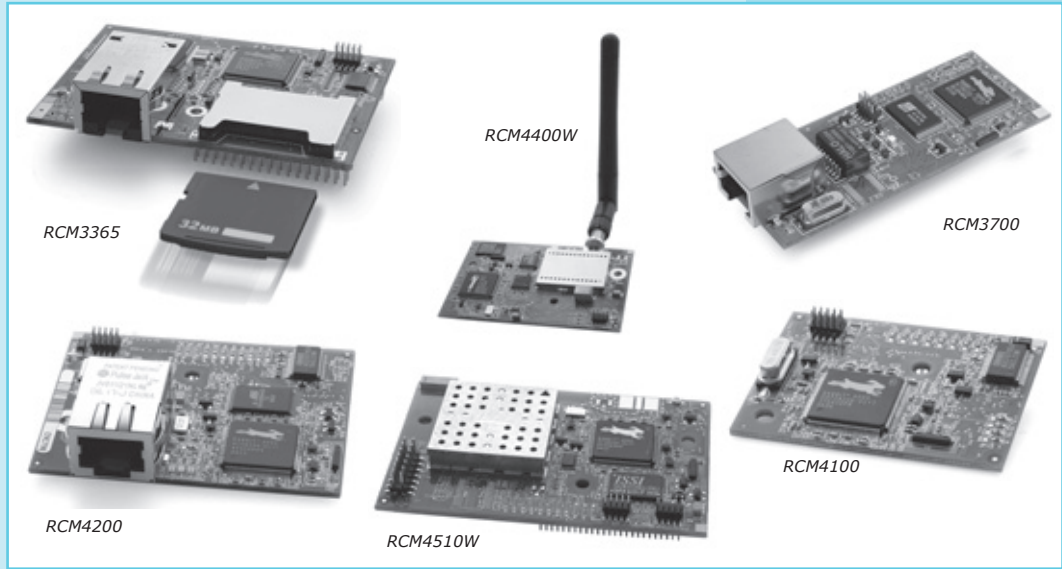
EEPROM - I2C BUS			1-24	25-99	100-499	500+
24C04	DIP8	EEPROM 4K I2C bus	0.233	0.212	0.180	0.167
24C04 SMD	SO8	EEPROM 4K I2C bus	0.233	0.212	0.180	0.167
24C08	DIP8	EEPROM 8K I2C bus	0.230	0.208	0.177	0.164
24C08 SMD	SO8	EEPROM 8K I2C bus	0.230	0.208	0.177	0.164
24C16	DIP8	EEPROM 16K I2C bus	0.312	0.283	0.241	0.223
24C16 SMD	SO8	EEPROM 16K I2C bus	0.297	0.269	0.229	0.212
24C32	DIP8	EEPROM 32K I2C bus	0.441	0.400	0.340	0.315
24C32 SMD	SO8	EEPROM 32K I2C bus	0.450	0.409	0.347	0.322
24C64	DIP8	EEPROM 64K I2C bus	0.574	0.521	0.443	0.410
24C256	DIP8	EEPROM 256K, 32K X 8 I2C bus	1.066	0.967	0.822	0.762
24C512 SMD	SO8	EEPROM 512K, 2-WIRE Interface, 2.7-5.5V	1.528	1.386	1.179	1.091
EEPROM - I2C BUS MICROCHIP			1-24	25-99	100-499	500+
24LC00-I/P	DIP8	128 bit, 16x8, 4ms, 400kHz, 2.5-6V, 1M ER/WR	0.236	0.207	0.196	0.188
24LC00-I/SN SMD	NSO8	128 bit, 16x8, 4ms, 400kHz, 2.5-6V, 1M ER/WR	0.224	0.197	0.187	0.179
24LC01B-I/P	DIP8	1K, 128x8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.272	0.240	0.226	0.218
24LC01B-I/SN SMD	NSO8	1K, 128x8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.240	0.211	0.200	0.192
24LC02B-I/P	DIP8	2K, 256x8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.288	0.254	0.240	0.231
24LC02B-I/SN SMD	NSO8	2K, 256x8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.272	0.240	0.226	0.218
24LC04B-I/P	DIP8	4K, 512x8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.320	0.282	0.266	0.256
24LC04B-I/SN SMD	NSO8	4K, 512x8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.288	0.254	0.240	0.231
24LC08B-I/P	DIP8	8K, 1Kx8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.336	0.296	0.280	0.269
24LC08B-I/SN SMD	NSO8	8K, 1Kx8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.320	0.282	0.266	0.256
24LC16B-I/P	DIP8	16K, 2Kx8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.352	0.310	0.293	0.282
24LC16B-I/SN SMD	NSO8	16K, 2Kx8, 10mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.336	0.296	0.280	0.269
24LC32A-I/P	DIP8	32K, 4Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.448	0.395	0.373	0.359
24LC32A-I/SN SMD	NSO8	32K, 4Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.432	0.380	0.360	0.346
24LC64-I/SN SMD	NSO8	64K, 8Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.512	0.451	0.426	0.410
24LC65-I/P	DIP8	64K, 8Kx8, 5mS, 400kHz, 2.5-5.5V, 10M ER/WR	1.793	1.578	1.492	1.435
24LC65-I/SM SMD	SO8	64K, 8Kx8, 5mS, 400kHz, 2.5-5.5V, 10M ER/WR	1.793	1.578	1.492	1.435
24LC128-I/P	DIP8	128K, 16Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.769	0.676	0.639	0.615
24LC128-I/SN SMD	NSO8	128K, 16Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	0.737	0.648	0.613	0.589
24LC256-I/P	DIP8	256K, 32Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	1.137	1.000	0.946	0.910
24LC256-I/SN SMD	NSO8	256K, 32Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	1.121	0.986	0.933	0.897
24LC256-I/SM SMD	SO8	256K, 32Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	1.137	1.000	0.946	0.910
24LC512-I/MF SMD	QFN	512K, 64Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	2.530	2.226	2.105	2.024
24LC512-I/P	DIP8	512K, 64Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	2.034	1.790	1.692	1.627
24LC512-I/SM SMD	SO8	512K, 64Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	2.034	1.790	1.692	1.627
24LC515-I/P	DIP8	512K, 64Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	3.154	2.776	2.625	2.524
24LC515-I/SM SMD	SO8	512K, 64Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	3.154	2.776	2.625	2.524
24LC1025-I/SM SMD	SO8	1024K, 128Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	4.275	3.762	3.557	3.420
24LC1025-I/P	DIP8	1024K, 128Kx8, 5mS, 400kHz, 2.5-5.5V, 1M ER/WR	4.275	3.762	3.557	3.420
EEPROM - I2C BUS ROHM			1-24	25-99	100-499	500+
24L02 BR24L02F-WE2	SO8	2K 256x8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.190	0.167	0.158	0.152
24L04 BR24L04F-WE2	SO8	4K 512x8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.213	0.187	0.177	0.170
24L08 BR24L08F-WE2	SO8	8K 1Kx8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.236	0.208	0.197	0.189
24L16 BR24L16F-WE2	SO8	16K 2Kx8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.269	0.236	0.223	0.215
24L32 BR24L32F-WE2	SO8	32K 4Kx8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.402	0.354	0.334	0.321
24L64 BR24L64F-WE2	SO8	64K 8Kx8 5mS 400kHz 1.8-5.5V 1M ER/WR	0.551	0.485	0.458	0.441
EEPROM - MICROWIRE BUS			1-24	25-99	100-499	500+
93C46	DIP8	1k 64x16,2ms,1MHz,5V±10%,1M ER/WR, MW bus	0.207	0.180	0.167	0.159
93C46 SMD	SO8	1k 64x16,2ms,1MHz,5V±10%,1M ER/WR, MW bus	0.196	0.171	0.159	0.151
93C56	DIP8	2k 128x16or 256x8, 2ms,2MHz,4,5-5,5V,1M ER/WR, MW bus	0.273	0.238	0.221	0.210
93C66	DIP8	4k 256x16or 512x8, 2ms,2MHz,4,5-5,5V,1M ER/WR, MW bus	0.292	0.254	0.236	0.225
EEPROM - MICROWIRE BUS MICROCHIP			1-24	25-99	100-499	500+
93LC46-I/P	DIP8	1K 128x8 OR 64x16 6mS 2MHz 2÷6V, 1M ER/WR MW bus	0.528	0.459	0.426	0.406
93LC46-I/SN SMD	NSO8	1K 128x8 OR 64x16 6mS 2MHz 2÷6V, 1M ER/WR MW bus	0.511	0.445	0.413	0.393
93LC46B-I/P	DIP8	1K 64x16 6mS 2MHz 2÷6V, 1M ER/WR MW bus	0.280	0.244	0.227	0.216
93LC46B-I/SN	NSO8	1K 64x16 6mS 2MHz 2÷6V, 1M ER/WR MW bus	0.247	0.215	0.200	0.190
93LC66-I/P	DIP8	4K 512x8 OR 256x16 6mS 2MHz 2÷6V, 1M ER/WR MW bus	0.594	0.516	0.480	0.457
93LC66-I/SN SMD	NSO8	4K 512x8 OR 256x16 6mS 2MHz 2÷6V, 1M ER/WR MW bus	0.577	0.502	0.466	0.444
EEPROM -SPI BUS			1-24	25-99	100-499	500+
25C080-I/P	DIP8	8K, 1Kx8, 5ms, 3MHz, 4.5-5.5V, 1M ER/WR	0.975	0.858	0.811	0.780
25C160-I/P	DIP8	16K, 2Kx8, 5ms, 3MHz, 4.5-5.5V, 1M ER/WR	0.992	0.873	0.826	0.794
25C320-I/P	DIP8	32K, 4Kx8, 5ms, 3MHz, 4.5-5.5V, 1M ER/WR	0.706	0.621	0.587	0.564
25C320-I/SN SMD	NSO8	32K, 4Kx8, 5ms, 3MHz, 4.5-5.5V, 1M ER/WR	0.683	0.601	0.569	0.547
25LC320-I/SN SMD	NSO8	32K, 4Kx8, 5ms, 2MHz, 2.5V, 1M ER/WR	0.726	0.639	0.604	0.581
25LC640-I/SN SMD	NSO8	64K, 4Kx8, 5ms, 2MHz, 2.5V, 1M ER/WR	0.726	0.639	0.604	0.581
25LC1024-I/SM SMD	SO8	1024K, 128Kx8, 5ms, 2MHz, 2.5V, 1M ER/WR	3.898	3.430	3.243	3.119

FLASH			1-4	5-24	25-99	100+
AT45DB041D-SU	SO8	4Mbit (2048x256byte) Flash data memory, SPI, 2.7V	1.196	1.008	0.940	0.854
AT45DB161D-SU	SO8	16Mbit (4096x512byte) Flash data memory, SPI, 2.7V	2.022	1.704	1.589	1.444
GAL			1-4	5-24	25-99	100+
GAL16V8D-25LP	DIP20	64x32 AND ARRAY Fmax=250MHz, 25ns Tpd, Icc=90mA	1.146	0.966	0.901	0.819
GAL20V8B-25LP	DIP24	64x40 AND ARRAY Fmax=166MHz, 5ns delay, Icc=90mA	1.387	1.169	1.090	0.991
GAL22V10D-25LP	DIP24	132x44 AND ARRAY Fmax=250MHz, 4ns delay, Icc=90mA	1.942	1.636	1.526	1.387
STATIC RAM			1-4	5-24	25-99	100+
6264LP-70	DIP28	SRAM 8Kx8 70ns Low Power	1.244	1.048	0.977	0.888
62256LP-70	DIP28	SRAM 32Kx8 70ns Low Power	1.921	1.620	1.510	1.372
628128LP-70	DIP32	SRAM 128Kx8 70ns Low Power	2.470	2.082	1.941	1.764
6264LP-70 SMD	SO28	SRAM 8K x 8 Low Power	1.430	1.205	1.124	1.021
62256LP-70 SMD	SO28	SRAM 32K x 8 Low Power	2.046	1.725	1.608	1.462
628128LP-70 SMD	SO32	SRAM 128K x 8 Low Power	2.370	1.998	1.862	1.693
624096LP-55 SMD	SO32	SRAM 512K x 8 Low Power	5.153	4.343	4.049	3.681
DS1245AB-120	DIP32	NV SRAM 128Kx8 120ns, 4.75-5.25V	28.132	26.090	24.275	22.687
DS1245Y-120	DIP32	NV SRAM 128Kx8 120ns, 4.5-5.5V	28.132	26.090	24.275	22.687
DS32KHZ/DIP	DIP14	32.768kHz TCXO, Push-Pull Output, 4.5-5.5V, 0+70°C	7.634	7.080	6.587	6.156
DS32KHZN/DIP	DIP14	32.768kHz TCXO, Push-Pull Output, 4.5-5.5V, -40+85°C	8.768	8.131	7.566	7.071
Microcontrollers 68HC			1-24	25-99	100+	
MC68HC11A1FN/TMP68HC11A1T		512 EEPROM, 256 RAM, 3MHz, 16Bit timer, 8bit ADC	10.094	8.929	7.764	
MC68HC11F1CFN4	PLCC68	512 EEPROM, 1K RAM, 4MHz, 16bit timer, 8bit ADC	15.318	13.550	11.783	
Microcontrollers 8080			1-24	25-99	100+	500+
80C31	DIP40	8-bit MCU, ROMless 128 RAM, 33MHz	1.298	1.163	1.121	1.038
82C55	DIP40	ROMless 5MHz, 24 I/O ports	2.062	1.919	1.792	1.586
P80C552IBA/08	PLCC68	8-bit MCU, ROMless, 256RAM, 2x8bit PWM, 3x16bit TMR, ADC	11.585	10.330	9.654	
Microcontrollers Atmel			1-24	25-99	100+	
89C51	DIP40	MCU 4k FLASH 128 RAM 32I/O 2TMR	2.075	1.835	1.596	
89C51 PLCC	PLCC44	MCU 4k FLASH 128RAM 32I/O 2TMR	1.810	1.601	1.392	
89S52	DIP40	MCU 8kFLASH 256 RAM 32I/O 3TMR 33MHz	1.341	1.186	1.031	
89S52 PLCC	PLCC44	MCU 8kFLASH 256 RAM 32I/O 3TMR 33MHz	1.331	1.177	1.024	
89C55WD	DIP40	20k FLASH 256 RAM 32I/O Watchdog 3TMR 33MHz	2.291	2.027	1.763	
89C2051	DIP20	MCU 2k FLASH, 128RAM, 15 I/O, 24MHz, 2, 7-6V, 2 16bit TMR	0.962	0.851	0.740	
89C2051 SMD	SO20	MCU 2k FLASH, 128RAM, 15 I/O, 24MHz, 2, 7-6V, 2 16bit TMR	1.013	0.896	0.779	
89C4051	DIP20	MCU 4k FLASH, 128RAM, 15 I/O, 24MHz, 2, 7-6V, 2 16bit TMR	1.293	1.144	0.995	
ATMEGA128-16AU	TQFP64	8-bit AVR MCU, 128kB Flash, 4kB E2, 4kB RAM, 6 PWM, 16MIPS	7.032	6.220	5.409	
ATMEGA16-16AU	TQFP44	8bit AVR MCU, 16kB Flash, 512B E2, 1kB RAM, 2.7-5.5V	3.727			
ATMEGA162-16AU	TQFP44	8bit AVR MCU, 16kB Flash, 512B E2, 1kB RAM, 1.8-5.5V	3.938	3.484	3.029	
ATTINY26L-8PU	DIP20	8bit AVR MCU, 2kB Flash, 128B E2, 128 RAM, 2.7-5.5V	1.455	1.287	1.119	
ATMEGA168-20AU	TQFP32	16KB FLASH, 512B EE, 4KB RAM, 20MHz, ADC	4.007	3.545	3.082	
ATMEGA48-20AU	TQFP32	4KB FLASH, 256B EE, 512B RAM, 20MHz, ADC	2.593	2.294	1.995	
ATTINY2313-20SU	SO20	2KB FLASH, 125B EE, 128B RAM, 20MHz, Comparator	2.158	1.909	1.660	
AT91SAM7S256-AU	LQFP64	256KB FLASH, 64KB RAM, FSUSB, ADC, 2xUSART	11.854	10.486	9.118	
AT91SAM7X256-AU	LQFP100	256KB FLASH, 64KB RAM, FSUSB, ETH MAC 10/100	13.266	11.735	10.205	
MSP430F 16-bit microcontrollers Texas Instruments			1-4	5-24	25-99	100+
MSP430F1121IDW	SO20	16-bit MCU, 4kB FLASH, 256B RAM, Comparator	5.528	5.127	4.770	4.458
MSP430F1232IDW	SO20	16-bit MCU, 8kB FLASH, 256B RAM, SPI/UART, 10b ADC	6.425	5.959	5.545	5.182
MSP430F1491IPM	QFP64	16-bit MCU, 60kB FLASH, 2048B RAM, 2xSPI/UART	15.940	14.783	13.755	12.855
MSP430F2011IPW	TSOP14	2KB FLASH, 128B RAM, 16MHz, Comparator	1.769	1.640	1.526	1.426
MSP430F2012IPW	TSOP14	2KB FLASH, 128B RAM, 16MHz, USI, 10bit ADC	2.588	2.400	2.233	2.087
MSP430F2101IDW	SO20	1KB FLASH, 128B RAM, 16MHz, Comparator	2.051	1.902	1.770	1.654
MSP430F2121IDW	SO20	4KB FLASH, 256B RAM, 16MHz, Comparator	3.023	2.803	2.608	2.438
LPC 32-bit ARM& microcontrollers NXP			1-4	5-24	25-99	100+
LPC2142FBD64	LQFP64	64kB FLASH, 16kB RAM, FSUSB, 2xADC, DAC	8.179	7.586	7.058	6.596
LPC2146FBD64	LQFP64	256kB FLASH, 32kB RAM, FSUSB, 2xADC, DAC	12.509	11.601	10.794	10.088
LPC2366FBD100	LQFP100	256kB FLASH, 32kB RAM, FSUSB, ETH, CAN	9.502	8.813	8.200	7.663
LPC2368FBD100	LQFP100	512kB FLASH, 32kB RAM, FSUSB, ETH, CAN, SD/MMC	11.547	10.709	9.964	9.312
Microcontrollers FREESCALE			1-4	5-24	25-99	100+
MC9S08GT60CFDE	QFP48	60K FLASH, 4K RAM, 20MIPS, 36I/O, 2TMRs, 16bit PWM	12.298	11.405	10.612	9.917
MC9S12NE64VTUE	TQFP80	64KB FLASH, 8KB RAM, ETH MAC&PHY 10/100	14.578	13.520	12.580	11.757

Microcontrollers MAXIM

1-4 5-24 25-99 100+

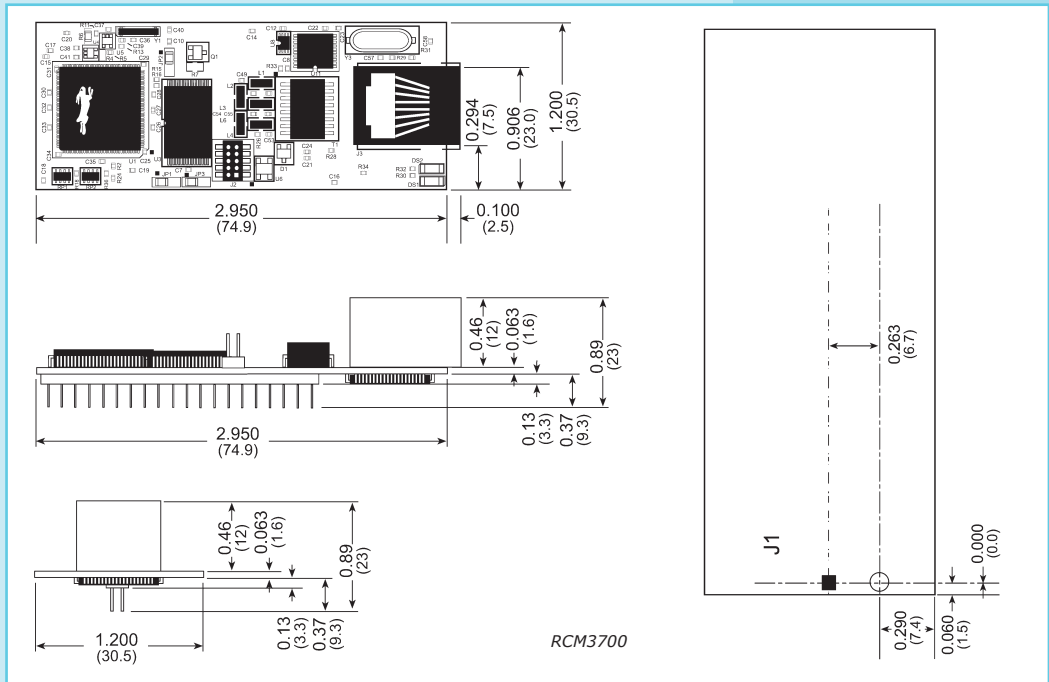
DS80C320-QCG	PLCC44 MCU ROMless 33MHz, 256 RAM, 3TMR, PLCC44	14.338	13.298	12.373	11.563
DS89C420-MCL	DIP 40 MCU 33MHz, 16k Flash, 1k RAM, 3x16bit TMR, 4.5-5.5V	14.105	13.081	12.171	11.375
DS80C400-FNY	LQFP100 MCU 33MHz, 1k RAM, 4x16bit TMR, 10/100 Ethernet, 1.8/3.3V	19.151	17.761	16.525	15.444



Microprocessors RABBIT SEMICONDUCTOR

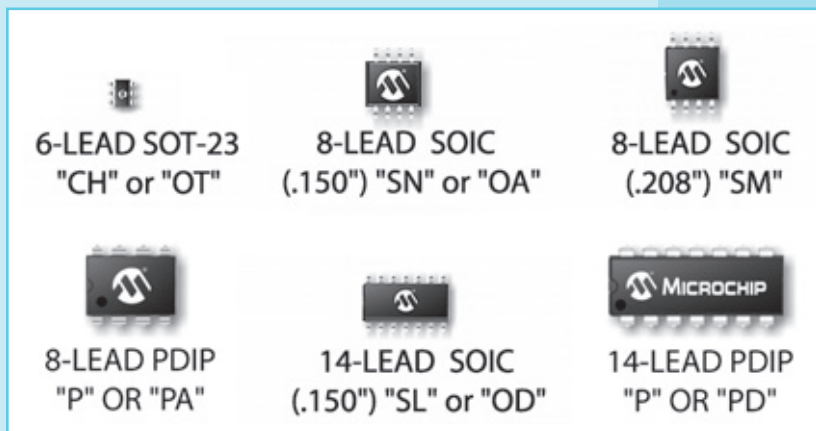
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RCM3600 CORE	Rabbit3000-22.1MHz FLASH512K SRAM512K TCP/IPhardw.	52.856
RCM3610 CORE	Rabbit3000-22.1MHz FLASH256K SRAM128K TCP/IPhardw.	45.560
RCM3700 CORE	Rabbit3000-22.1MHz FLASH512K SRAM512K TCP/IPhardw.	63.643
RCM3720 CORE	Rabbit3000-22.1MHz FLASH512K SRAM256K Ethernet	59.329



PIC Microcontrollers MICROCHIP

			1-4	5-24	25-99	100+
PIC10F200-I/P	DIP8	0,375KB FLASH,16 RAM,4I/O TMR	0.675	0.540	0.515	0.500
PIC10F200T-I/OT	SOT23-6	0.375KB FLASH,16 RAM,4I/O TMR	0.621	0.497	0.474	0.460
PIC10F202-I/P	DIP8	0.75KB FLASH,24 RAM,4I/O TMR	0.729	0.583	0.556	0.540
PIC10F202T-I/OT	SOT23-6	0.75KB FLASH,24 RAM,4I/O TMR	0.675	0.540	0.515	0.500
PIC10F204-I/P	DIP8	0.375K FLASH,16RAM,4I/O TMR,COMP	0.729	0.583	0.556	0.540
PIC10F204T-I/OT	SOT23-6	0.375K FLASH,16RAM,4I/O TMR, COMP	0.675	0.540	0.515	0.500
PIC10F206-I/P	DIP8	0.75KB FLASH,24RAM,4I/O TMR, COMP	0.770	0.616	0.587	0.570
PIC10F206T-I/OT	SOT23-6	0.75KB FLASH,24RAM,4I/O TMR, COMP	0.716	0.572	0.546	0.530
PIC12C508A-04/P	DIP8	0.5K OTP,25 RAM,6I/O,TMR	1.248	1.152	0.989	0.960
PIC12C508A-04/SM	SO8	0.5K OTP,25 RAM,6I/O,TMR,0.208"	1.248	1.152	0.989	0.960
PIC12C508A-04/SN	NSO8	0.5K OTP,25 RAM,6I/O,TMR,0.150"	1.287	1.188	1.020	0.990
PIC12C508A-04I/P	DIP8	0.5K OTP,25 RAM,6I/O,TMR	1.365	1.260	1.082	1.050
PIC12C509A-04/P	DIP8	1K OTP,41 RAM,6I/O,TMR	1.287	1.188	1.020	0.990
PIC12C509A-04/SM	SO8	1K OTP,41 RAM,6I/O,TMR,208"	1.287	1.188	1.020	0.990
PIC12C509A-04/SN	NSO8	1K OTP,41 RAM,6I/O,TMR,.150"	1.339	1.236	1.061	1.030
PIC12C509A-04I/P	DIP8	1K OTP,41 RAM,6I/O,TMR	1.417	1.308	1.123	1.090
PIC12F508-I/P	DIP8	0.75KB Enh Flash, 25 RAM, 6 I/O, TMR Pb Free	0.780	0.720	0.618	0.600
PIC12F508-I/SN	NSO8	0.75KB Enh Flash, 25 RAM, 6 I/O, TMR Pb Free	0.741	0.684	0.587	0.570
PIC12F509-I/P	DIP8	1,5KB Enh Flash, 41 RAM, 6 I/O, TMR Pb Free	0.832	0.768	0.659	0.640
PIC12F509-I/SN	NSO8	1,5KB Enh Flash, 41 RAM, 6 I/O, TMR Pb Free	0.780	0.720	0.618	0.600
PIC12F510-I/P	DIP8	1,5KB Enh Flash, 38 RAM, 6 I/O, TMR	0.910	0.840	0.721	0.700
PIC12F510-I/SN	NSO8	1,5KB Enh Flash, 38 RAM, 6 I/O, TMR	0.871	0.804	0.690	0.670
PIC12F629-I/P	DIP8	1,75KB FLASH, 64 RAM+128E2,6I/O,TMR	1.144	1.056	0.906	0.880
PIC12F629-I/SN	NSO8	1,75KB FLASH, 64 RAM+128E2,6I/O,TMR	1.040	0.960	0.824	0.800
PIC12F675-I/P	DIP8	1,75KB FLASH, 64 RAM+128E2,6I/O,TMR, 4 ADC	1.248	1.152	0.989	0.960
PIC12F675-I/SN	NSO8	1,75KB FLASH, 64 RAM+128E2,6I/O,TMR, 4 ADC	1.144	1.056	0.906	0.880
PIC12F635-I/P	DIP8	2KB Enh Flash, 64 RAM+128E2, 6I/O,TMR,KLQ	1.352	1.248	1.071	1.040
PIC12F635-I/SN	NSO8	2KB Enh Flash, 64 RAM+128E2, 6I/O,TMR,KLQ	1.248	1.152	0.989	0.960
PIC12F683-I/P	DIP8	3.5KB FLASH, 128RAM+256E2, 6I/O, TMR,4ADC	1.456	1.344	1.154	1.120
PIC12F683-I/SN	NSO8	3.5KB FLASH, 128RAM+256E2, 6I/O, TMR,4ADC	1.352	1.248	1.071	1.040
PIC12F615-I/P	DIP8	1,75KB Flash, 64 RAM, 6 I/O, 8MHZ osc	1.079	0.996	0.855	0.830
PIC12F615-I/SN	NSO8	1,75KB Flash, 64 RAM, 6 I/O, 8MHZ osc	1.040	0.960	0.824	0.800
PIC16F616-I/P	DIP8	1,75KB Flash, 64 RAM, 6 I/O, 8MHZ osc	1.313	1.212	1.040	1.010
PIC16F616-I/SL	NSO8	1,75KB Flash, 64 RAM, 6 I/O, 8MHZ osc	1.183	1.092	0.937	0.910



			1-4	5-24	25-99	100+
PIC16F505-I/P	DIP14	1,5KB Flash,72 RAM,12I/O,TMR-40 +85°C	1.001	0.939	0.793	0.770
PIC16F505-I/SL	NSO14	1,5KB Flash,72 RAM,12I/O,TMR .150"	0.871	0.817	0.690	0.670
PIC16F630-I/P	DIP14	1,75KB FLASH,64 RAM+128E2,12I/O,TMR	1.508	1.415	1.195	1.160
PIC16F630-I/SL	NSO14	1,75KB FLASH,64 RAM+128E2,12I/O,TMR,.150"	1.352	1.269	1.071	1.040
PIC16F636-I/P	DIP14	3,5KB Enh Flash,128RAM+256E2, 12I/O,TMR,KLQ	1.534	1.440	1.215	1.180
PIC16F636-I/SL	NSO14	3,5KB Enh Flash,128RAM+256E2, 12I/O,TMR,KLQ	1.378	1.293	1.092	1.060
PIC16F676-I/P	DIP14	1,75KB FLASH,64 RAM+128E2,12I/O,TMR, ADC	1.612	1.513	1.277	1.240
PIC16F676-I/SL	NSO14	1,75KB FLASH,64 RAM+128E2,12I/O,TMR, ADC,.150"	1.456	1.366	1.154	1.120
PIC16F684-I/P	DIP14	3.5KB Flash,128 RAM+256E2,12I/O,TMR, ADC	1.625	1.525	1.288	1.250
PIC16F684-I/SL	NSO14	3.5KB Flash,128 RAM+256E2,12I/O,TMR, ADC,.150"	1.469	1.379	1.164	1.130
PIC16F688-I/P	DIP14	7KB Flash, 256 RAM+256E2, 12 I/O, TMR	1.716	1.610	1.360	1.320
PIC16F688-I/SL	NSO14	7KB Flash, 256 RAM+256E2, 12 I/O, TMR	1.560	1.464	1.236	1.200
PIC16F688-I/ML	QFN16	7K Flash, 256 RAM+256E2, 12 I/O, TMR	1.716	1.610	1.360	1.320
PIC16C54C-04/P	DIP18	0.5K OTP,25 RAM,12I/O,TMR	1.820	1.680	1.442	1.400

PIC Microcontrollers MICROCHIP

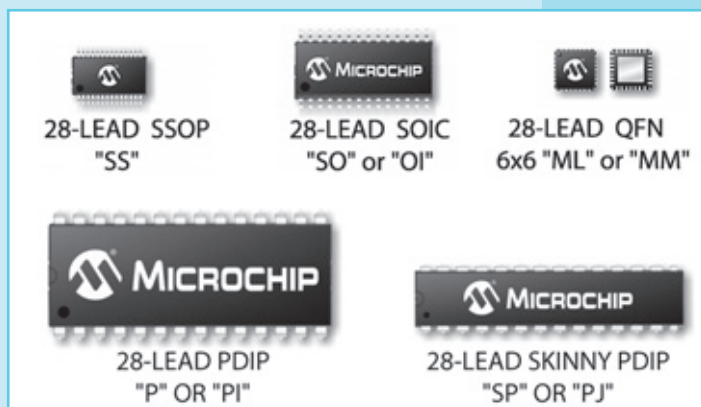
			1-4	5-24	25-99	100+
PIC16C54C-04I/P	DIP18	0.5K OTP, 25 RAM, 12I/O, TMR	1.820	1.680	1.442	1.400
PIC16C54C-04I/SO	SO18	0.5K OTP, 25 RAM, 12I/O, TMR	1.859	1.716	1.473	1.430
PIC16F54-I/P	DIP18	0.77K Flash, 25 RAM, 12 I/O, Pb Free TMR	0.702	0.562	0.536	0.520
PIC16F54-I/SO	SO18	0.77K Flash, 25 RAM, 12 I/O, Pb Free TMR	0.621	0.497	0.474	0.460
PIC16C621A-04/P	DIP18	1K OTP, 96RAM, 13I/O, TMR, 2CMP, V REF	2.002	1.848	1.586	1.540
PIC16C621A-04I/P	DIP18	1K OTP, 96RAM, 13I/O, TMR, 2CMP, V REF	2.197	2.028	1.741	1.690
PIC16C621A-04/SO	SO18	1K OTP, 96RAM, 13I/O, TMR, 2CMP, V REF	2.041	1.884	1.617	1.570
PIC16F716-I/P	DIP18	3.5K Flash, 128RAM, 13I/O, 3TMR, 4CH.A/D	1.248	1.037	0.989	0.960
PIC16F716-I/SO	SO18	3.5K Flash, 128RAM, 13I/O, 3TMR, 4CH.A/D	1.144	0.950	0.906	0.880
PIC16F627A-I/SS	SSOP20	1,75KB FLASH, 224RAM+128E2, 16I/O, S I/O	1.963	1.696	1.617	1.570
PIC16F627A-I/P	DIP18	1,75KB FLASH, 224RAM+128E2, 16I/O, S I/O	1.775	1.534	1.463	1.420
PIC16F627A-I/SO	SO18	1,75KB FLASH, 224RAM+128E2, 16I/O, S I/O	1.813	1.566	1.494	1.450
PIC16F628A-I/P	DIP18	3,5KB FLASH, 224RAM+128E2, 16I/O, TM3, 2CMP...	2.013	1.739	1.658	1.610
PIC16F628A-I/SO	SO18	3,5KB FLASH, 224RAM+128E2, 16I/O, TM3, 2CMP...	2.063	1.782	1.700	1.650
PIC16F628A-I/SS	SSOP20	3,5KB FLASH, 224RAM+128E2, 16I/O, TM3, 2CMP...	2.225	1.922	1.833	1.780
PIC16F648A-I/P	DIP18	7KB FLASH, 256RAM+256E2, 16I/O, 3TMR, AUSART	2.288	1.976	1.885	1.830
PIC16F648A-I/SO	SO18	7KB FLASH, 256RAM+256E2, 16I/O, 3TMR, AUSART	2.338	2.020	1.926	1.870
PIC16F648A-I/SS	SSOP20	7KB FLASH, 256RAM+256E2, 16I/O, 3TMR, AUSART	2.525	2.182	2.081	2.020
PIC16F84A-04/P	DIP18	1,75KB FLASH, 68RAM+64E2, 13I/O, TMR	4.275	3.694	3.523	3.420
PIC16F84A-04I/P	DIP18	1,75KB FLASH, 68RAM+64E2, 13I/O, TMR	4.688	4.050	3.863	3.750
PIC16F84A-04/SO	SO18	1,75KB FLASH, 68RAM+64E2, 13I/O, TMR	4.350	3.758	3.584	3.480
PIC16F84A-04I/SO	SO18	1,75KB FLASH, 68RAM+64E2, 13I/O, TMR	4.775	4.126	3.935	3.820
PIC16F84A-20/P	DIP18	1,75KB FLASH, 68RAM+64E2, 13I/O, TMR	4.563	3.942	3.760	3.650
PIC16F84A-20I/P	DIP18	1,75KB FLASH, 68RAM+64E2, 13I/O, TMR	5.013	4.331	4.130	4.010
PIC16F84A-20I/SO	SO18	1,75KB FLASH, 68RAM+64E2, 13I/O, TMR	5.088	4.396	4.192	4.070
PIC16F819-I/P	DIP18	3,5KB FLASH, 256RAM, 16I/O, 3TMR, 5CH, A/D	2.438	2.106	2.009	1.950
PIC16F819-I/SO	SO18	3,5KB FLASH, 256RAM, 16I/O, 3TMR, 5CH, A/D	2.475	2.138	2.039	1.980
PIC16F819-I/SS	SSOP20	3,5KB FLASH, 256RAM, 16I/O, 3TMR, 5CH, A/D	2.675	2.311	2.204	2.140
PIC16F87-I/P	DIP18	7KB FLASH, 368RAM+256E2, 16I/O, TMR, AUSART	2.825	2.441	2.328	2.260
PIC16F87-I/SO	SO18	7KB FLASH, 368RAM+256E2, 16I/O, TMR, AUSART	2.888	2.495	2.379	2.310
PIC16F87-I/ML	QFN28	7KB FLASH, 368RAM+256E2, 16I/O, TMR, AUSART	3.163	2.732	2.606	2.530
PIC16F88-I/P	DIP18	7KB FLASH, 368RAM+256E2, 16I/O, TMR, ADC, AUSART	3.013	2.603	2.482	2.410
PIC16F88-I/SO	SO18	7KB FLASH, 368RAM+256E2, 16I/O, TMR, ADC, AUSART	3.088	2.668	2.544	2.470
PIC18F1220-I/P	DIP18	4KB FLASH, 256RAM+256E2, 16I/O, 4TMR, ADC, EUSART	2.900	2.598	2.390	2.320
PIC18F1220-I/SO	SO18	4KB FLASH, 256RAM+256E2, 16I/O, 4TMR, ADC, EUSART	2.800	2.509	2.307	2.240
PIC18F1220-I/SS	SSOP20	4KB FLASH, 256RAM+256E2, 16I/O, 4TMR, ADC, EUSART	2.800	2.509	2.307	2.240
PIC18F1320-I/P	DIP18	8KB FLASH, 256RAM+256E2, 16I/O, 4TMR, ADC, EUSART	3.200	2.867	2.637	2.560
PIC18F1320-I/SO	SO18	8KB FLASH, 256RAM+256E2, 16I/O, 4TMR, ADC, EUSART	3.100	2.778	2.554	2.480
PIC18F1320-I/SS	SSOP20	8KB FLASH, 256RAM+256E2, 16I/O, 4TMR, ADC, EUSART	3.100	2.778	2.554	2.480
PIC18F1320-I/ML	QFN28	8KB FLASH, 256RAM+256E2, 16I/O, 4TMR, ADC, EUSART	3.450	3.091	2.843	2.760
PIC16F639-I/SS	SSOP20	3.5KB Flash, 128 RAM, 12 I/O, KEELOQ CERN	3.075	2.755	2.534	2.460
PIC16F685-I/SO	SO20	7KB FLASH, 256RAM+256E2, 18I/O, 3TMR	1.875	1.680	1.545	1.500
PIC16F689-I/ML	QFN20	7KB FLASH, 256RAM+256E2, 18I/O, EUSART	1.875	1.680	1.545	1.500
PIC16F689-I/P	DIP20	7KB FLASH, 256RAM+256E2, 18I/O, EUSART	1.925	1.725	1.586	1.540
PIC16F689-I/SO	SO20	7KB FLASH, 256RAM+256E2, 18I/O, EUSART	1.875	1.680	1.545	1.500
PIC16F689-I/SS	SSOP20	7KB FLASH, 256RAM+256E2, 18I/O, EUSART	1.625	1.456	1.339	1.300
PIC16F690-I/ML	QFN28	7KB FLASH, 256RAM+256E2, 18I/O, EUSART, ECCP	1.975	1.770	1.627	1.580
PIC16F690-I/P	DIP20	7KB FLASH, 256RAM+256E2, 18I/O, EUSART, ECCP	2.025	1.814	1.669	1.620
PIC16F690-I/SO	SO20	7KB FLASH, 256RAM+256E2, 18I/O, EUSART, ECCP	1.975	1.770	1.627	1.580



			1-4	5-24	25-99	100+
PIC16F690-I/SS	SSOP20	7KB FLASH, 256RAM+256E2, 18I/O, EUSART, ECCP	1.725	1.546	1.421	1.380
PIC16C57C-04/P	DIP28	2K OTP, 72 RAM, 20I/O, TMR	2.488	2.229	2.050	1.990
PIC16C57C-04I/P	DIP28	2K OTP, 72 RAM, 20I/O, TMR	2.738	2.453	2.256	2.190
PIC16C57C-20I/P	DIP28	2K OTP, 72 RAM, 20I/O, TMR	3.075	2.755	2.534	2.460

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			1-4	5-24	25-99	100+
PIC16F57-I/P	DIP28	3KB FLASH, 72 RAM, 20I/O, TMR	1.013	0.875	0.834	0.810
PIC16F57-I/SO	SO28	3KB FLASH, 72 RAM, 20I/O, TMR	0.813	0.702	0.670	0.650
PIC16F57-I/SP	SDIP28	3KB FLASH, 72 RAM, 20I/O, TMR	1.013	0.875	0.834	0.810
PIC16F72-I/SO	SO28	3.5K FLASH, 128 RAM, 22I/O, 3TMR, 5CH.A/D, USART	2.625	2.352	2.163	2.100
PIC16F73-I/SO	SO28	7KB FLASH, 192 RAM, 22I/O, 3TMR, 5CH.A/D, USART	4.088	3.662	3.368	3.270
PIC16F73-I/SP	SDIP28	7KB FLASH, 192 RAM, 22I/O, 3TMR, 5CH.A/D, USART	4.088	3.662	3.368	3.270
PIC16F870-I/SP	SDIP28	4KB FLASH, 128RAM+64E2, 22I/O, 5ADC	3.513	3.147	2.894	2.810
PIC16F870-I/SO	SO28	4KB FLASH, 128RAM+64E2, 22I/O, 5ADC	3.513	3.147	2.894	2.810
PIC16F870-I/SS	SSOP28	4KB FLASH, 128RAM+64E2, 22I/O, 5ADC	3.625	3.248	2.987	2.900
PIC16F872-I/SP	SDIP28	4KB FLASH, 128RAM+64E2, 22I/O, 5ADC	3.513	3.147	2.894	2.810
PIC16F872-I/SO	SO28	4KB FLASH, 128RAM+64E2, 22I/O, 5ADC	3.513	3.147	2.894	2.810
PIC16F873A-I/SO	SO28	7KB FLASH, 192RAM+128E2, 22I/O, 5ADC	4.975	4.458	4.099	3.980
PIC16F873A-I/SP	SDIP28	7KB FLASH, 192RAM+128E2, 22I/O, 5ADC	4.975	4.458	4.099	3.980
PIC16F882-I/SO	SO28	3.5KB FLASH, 128RAM, 25I/O, EUSART	1.775	1.590	1.463	1.420
PIC16F882-I/SP	SDIP28	3.5KB FLASH, 128RAM, 25I/O, EUSART	1.975	1.770	1.627	1.580
PIC16F886-I/SO	SO28	14KB FLASH, 368RAM, 22I/O, EUSART	2.225	1.994	1.833	1.780
PIC16F886-I/SP	SDIP28	14KB FLASH, 368RAM, 22I/O, EUSART	2.425	2.173	1.998	1.940
PIC16F76-I/SO	SO28	14.3KB FLASH, 368 RAM, 22I/O, 3TMR, 5CH.A/D, USART	5.125	4.592	4.223	4.100
PIC16F76-I/SP	SDIP28	14.3KB FLASH, 368 RAM, 22I/O, 3TMR, 5CH.A/D, USART	5.125	4.592	4.223	4.100
PIC16F876A-I/SP	SDIP28	14KB FLASH, 368RAM+256E2, 22I/O, 5ADC	5.363	4.805	4.419	4.290
PIC16F876A-I/SO	SO28	14KB FLASH, 368RAM+256E2, 22I/O, 5ADC	5.363	4.805	4.419	4.290
PIC16F876-20I/SP	SDIP28	14KB FLASH, 368RAM+256E2, 22I/O, 5ADC	7.225	6.474	5.953	5.780
PIC16F876-20I/SO	*SO28	14KB FLASH, 368RAM+256E2, 22I/O, 5ADC	7.225	6.474	5.953	5.780
PIC16F913-I/SO	SO28	7KB FLASH, 256RAM+256E2, 25I/O, ADC, LCD DR	2.500	2.160	2.060	2.000
PIC16F913-I/SP	SDIP28	7KB FLASH, 256RAM+256E2, 25I/O, ADC, LCD DR	2.700	2.333	2.225	2.160
PIC16F913-I/SS	SSOP28	7KB FLASH, 256RAM+256E2, 25I/O, ADC, LCD DR	2.463	2.128	2.029	1.970
PIC16F916-I/SO	SO28	14KB FLASH, 352RAM+256E2, 25I/O, ADC, LCD DR	2.800	2.419	2.307	2.240
PIC16F916-I/SP	SDIP28	14KB FLASH, 352RAM+256E2, 25I/O, ADC, LCD DR	3.000	2.592	2.472	2.400
PIC16F916-I/SS	SSOP28	14KB FLASH, 352RAM+256E2, 25I/O, ADC, LCD DR	2.763	2.387	2.276	2.210
PIC18F2220-I/SO	SO28	4KB FLASH, 512RAM, 25I/O, 4TMR, ADC, PWM, AUSART	5.563	4.984	4.584	4.450
PIC18F2220-I/SP	SDIP28	4KB FLASH, 512RAM, 25I/O, 4TMR, ADC, PWM, AUSART	5.563	4.984	4.584	4.450
PIC18F2320-I/SO	SO28	8KB FLASH, 512RAM, 25I/O, 4TMR, ADC, PWM, AUSART	6.025	5.398	4.965	4.820
PIC18F2320-I/SP	SDIP28	8KB FLASH, 512RAM, 25I/O, 4TMR, ADC, PWM, AUSART	6.025	5.398	4.965	4.820
PIC18F2331-I/SO	SO28	8K SWFLASH, 768RAM, 24I/O, 4TMR, ADC, PWM, EUSART	4.400	3.942	3.626	3.520
PIC18F2331-I/SP	SDIP28	8K SWFLASH, 768RAM, 24I/O, 4TMR, ADC, PWM, EUSART	4.600	4.122	3.790	3.680
PIC18F2410-I/SO	SO28	16KB SWFLASH, 1024RAM, 21I/O, 4TMR, ADC, PWM, EUSART	2.100	1.882	1.730	1.680
PIC18F2420-I/SP	SDIP28	16KB SWFLASH, 768RAM, 25I/O, 4TMR, ADC, PWM, EUSART	4.100	3.674	3.378	3.280
PIC18F2420-I/SO	SO28	16KB SWFLASH, 768RAM, 25I/O, 4TMR, ADC, PWM, EUSART	3.900	3.494	3.214	3.120
PIC18F2431-I/SO	SO28	16K SWFLASH, 768RAM, 24I/O, 4TMR, ADC, PWM, EUSART	4.600	4.122	3.790	3.680
PIC18F2431-I/SP	SDIP28	16K SWFLASH, 768RAM, 24I/O, 4TMR, ADC, PWM, EUSART	4.800	4.301	3.955	3.840
PIC18F2439-I/SO	SO28	12KB FLASH, 640RAM, 21I/O, 4TMR, ADC, PWM, AUSART	5.913	5.298	4.872	4.730
PIC18F2439-I/SP	SDIP28	12KB FLASH, 640RAM, 21I/O, 4TMR, ADC, PWM, AUSART	5.913	5.298	4.872	4.730
PIC18F2455-I/SP	SDIP28	24KB FLASH, 2048 RAM, 24I/O, 4TMR, ADC, PWM, EUSART, FS-USB	4.925	4.413	4.058	3.940
PIC18F248-I/SP	SDIP28	16KB FLASH, 768RAM, 23I/O, 4TMR, ADC, PWM, S. I/O, CAN	7.088	6.350	5.840	5.670
PIC18F252-I/SP	SDIP28	32KB SWFLASH, 1536RAM, 23I/O, 4TMR, ADC, PWM, S. I/O	6.438	5.768	5.305	5.150
PIC18F252-I/SO	SO28	32KB SWFLASH, 1536RAM, 23I/O, 4TMR, ADC, PWM, S. I/O	6.438	5.768	5.305	5.150
PIC18F2520-I/SO	SO28	32KB SWFLASH, 1536RAM, 25I/O, 4TMR, ADC, PWM, EUSART	4.538	4.066	3.739	3.630
PIC18F2520-I/SP	SDIP28	32KB SWFLASH, 1536RAM, 25I/O, 4TMR, ADC, PWM, EUSART	4.738	4.245	3.904	3.790
PIC18F2523-I/SP	SDIP28	32KB SWFLASH, 1536RAM, 25I/O, 4TMR, ADC, PWM, EUSART	5.138	4.603	4.233	4.110
PIC18F2525-I/SO	SO28	48KB SWFLASH, 3968RAM, 25I/O, 4TMR, ADC, PWM, EUSART	5.163	4.626	4.254	4.130
PIC18F2525-I/SP	SDIP28	48KB SWFLASH, 3968RAM, 25I/O, 4TMR, ADC, PWM, EUSART	5.363	4.805	4.419	4.290



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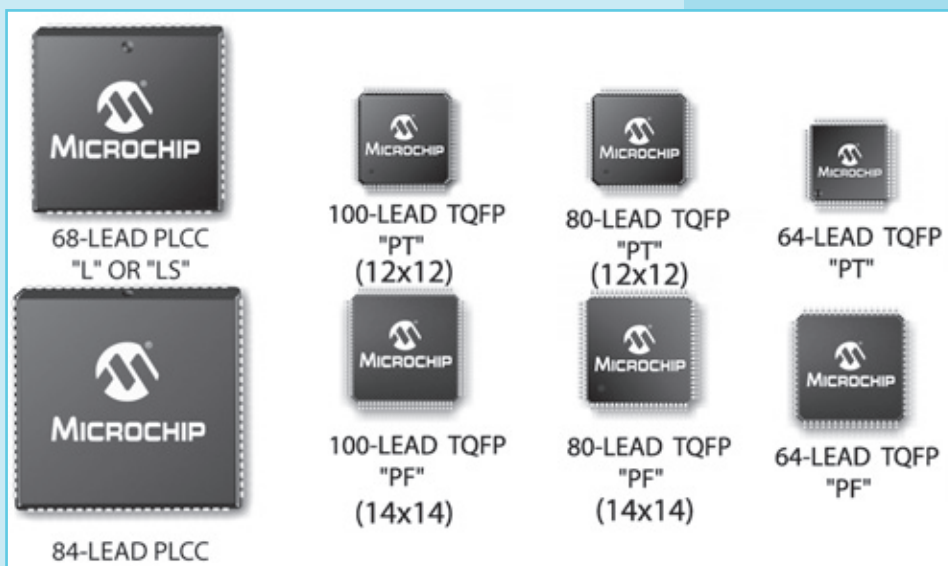
			1-4	5-24	25-99	100+
PIC18F2550-I/SO	SO28	32KB SWFlash, 2048 RAM, 23I/O,ADC,FS-USB 2.0	4.925	4.413	4.058	3.940
PIC18F2550-I/SP	SDIP28	32KB SWFlash, 2048 RAM, 23I/O,ADC,FS-USB 2.0	5.125	4.592	4.223	4.100
PIC18F2580-I/SO	SO28	32KB SWFLASH,1536RAM,25I/O,4TMR,ADC, EUSART,CAN	5.963	5.342	4.913	4.770
PIC18F2580-I/SP	SDIP28	32KB SWFLASH,1536RAM,25I/O,4TMR,ADC, EUSART,CAN	6.163	5.522	5.078	4.930
PIC18F2510-I/ML	QFN28	32KB SWFLASH,1024RAM,21I/O,4TMR,ADC, EUSART,3V	2.463	2.206	2.029	1.970
PIC18F2510-I/SS	SSOP28	32KB SWFLASH,1024RAM,21I/O,4TMR,ADC, EUSART,3V	2.263	2.027	1.864	1.810
PIC18F2510-I/SP	SDIP28	32KB SWFLASH,1024RAM,21I/O,4TMR,ADC, EUSART,3V	2.500	2.240	2.060	2.000
PIC18F2510-I/SO	SO28	32KB SWFLASH,1024RAM,21I/O,4TMR,ADC, EUSART,3V	2.300	2.061	1.895	1.840
PIC18F2620-I/SO	SO28	64KB SWFLASH,1024EPR,3968RAM,25I/O,EUSART	5.800	5.197	4.779	4.640
PIC18F2620-I/SP	SDIP28	64KB SWFLASH,1024EPR,3968RAM,25I/O,EUSART	6.000	5.376	4.944	4.800
PIC18F2680-I/SO	SO28	64KB SWFLASH,1024EPR,3328RAM,25I/O,EUSART, CAN	7.225	6.474	5.953	5.780
PIC18F2680-I/SP	SDIP28	64KB SWFLASH,1024EPR,3328RAM,25I/O,EUSART, CAN	7.425	6.653	6.118	5.940
PIC16F77-I/L	PLCC44	14KB FLASH,368RAM,33I/O,8ADC	6.663	5.756	5.490	5.330
PIC16F77-I/P	DIP40	14KB FLASH,368RAM,33I/O,8ADC	5.663	4.892	4.666	4.530
PIC16F877-20I/P	DIP40	14KB FLASH,368RAM+256E2,33I/O,8ADC	7.500	6.480	6.180	6.000
PIC16F877A-I/P	DIP40	14KB FLASH,368RAM+256E2,33I/O,8ADC	5.850	5.054	4.820	4.680
PIC16F877A-I/L	PLCC44	14KB FLASH,368RAM+256E2,33I/O,8ADC	6.888	5.951	5.675	5.510
PIC16F877A-I/PT	TQFP44	14KB FLASH,368RAM+256E2,33I/O,8ADC	6.750	5.832	5.562	5.400
PIC16F914-I/P	DIP40	7KB FLASH, 352 RAM, 36I/O , LCD DR	3.000	2.592	2.472	2.400
PIC16F914-I/PT	TQFP44	7KB FLASH, 352 RAM, 36I/O , LCD DR	2.900	2.506	2.390	2.320
PIC16F917-I/P	DIP40	14KB FLASH, 352 RAM, 36I/O , LCD DR	3.200	2.765	2.637	2.560
PIC16F917-I/PT	TQFP44	14KB FLASH, 352 RAM, 36I/O , LCD DR	3.100	2.678	2.554	2.480
PIC18F4220-I/P	DIP40	4KB SWFLASH,256EPR, 512RAM,36I/O,4TMR,ADC,AUSART	6.138	5.303	5.057	4.910
PIC18F4220-I/PT	TQFP44	4KB SWFLASH,256EPR, 512RAM,36I/O,4TMR,ADC,AUSART	7.088	6.124	5.840	5.670
PIC18F4320-I/P	DIP40	8KB SWFLASH,256EPR, 512RAM,36I/O,4TMR,ADC,AUSART	6.613	5.713	5.449	5.290
PIC18F4320-I/PT	TQFP44	8KB SWFLASH,256EPR, 512RAM,36I/O,4TMR,ADC,AUSART	7.538	6.512	6.211	6.030
PIC18F4331-I/P	DIP40	8KB SWFLASH,256EPR, 768RAM,36I/O,4TMR,ADC,EUSART	4.988	4.309	4.110	3.990
PIC18F4331-I/PT	TQFP44	8KB SWFLASH,256EPR, 768RAM,36I/O,4TMR,ADC,EUSART	4.938	4.266	4.069	3.950
PIC18F4420-I/P	DIP40	16KB SWFLASH,256EPR, 768RAM,36I/O,4TMR,ADC,EUSART	4.300	3.715	3.543	3.440
PIC18F4431-I/P	DIP40	16KB SWFLASH,256EPR, 768RAM,36I/O,4TMR,ADC,EUSART	5.213	4.504	4.295	4.170
PIC18F4431-I/PT	TQFP44	16KB SWFLASH,256EPR, 768RAM,36I/O,4TMR,ADC,EUSART	5.163	4.460	4.254	4.130
PIC18F4455-I/P	DIP40	24KB SWFLASH,256EPR,2048RAM,34I/O,4TMR,ADC,FS-USB 2.0	5.125	4.428	4.223	4.100
PIC18F4455-I/PT	TQFP44	24KB SWFLASH,256EPR,2048RAM,34I/O,4TMR,ADC,FS-USB 2.0	5.025	4.342	4.141	4.020
PIC18F452-I/P	DIP40	32KB FLASH,1536RAM,34I/O,4TMR,ADC,PWM,S. I/O	7.125	6.156	5.871	5.700
PIC18F452-I/L	PLCC44	32KB FLASH,1536RAM,34I/O,4TMR,ADC,PWM,S. I/O	8.288	7.160	6.829	6.630
PIC18F452-I/PT	TQFP44	32KB FLASH,1536RAM,34I/O,4TMR,ADC,PWM,S. I/O	8.138	7.031	6.705	6.510
PIC18F4520-I/P	DIP40	32KB SWFLASH,256EPR, 1536RAM,32I/O,4TMR,ADC,EUSART	4.938	4.266	4.069	3.950
PIC18F4520-I/PT	TQFP44	32KB SWFLASH,256EPR, 1536RAM,32I/O,4TMR,ADC,EUSART	4.838	4.180	3.986	3.870
PIC18F4523-I/P	DIP40	32KB SWFLASH, 256EPR,1536RAM,36I/O, EUSART	5.338	4.612	4.398	4.270
PIC18F4550-I/P	DIP40	32KB SWFLASH,256EPR,2048RAM,34I/O,ADC,FS-USB 2.0	5.325	4.601	4.388	4.260
PIC18F4550-I/PT	TQFP44	32KB SWFLASH,256EPR,2048RAM,34I/O,ADC,FS-USB 2.0	5.225	4.514	4.305	4.180
PIC18F4550-I/L	TQFP44	32KB SWFLASH,256EPR,2048RAM,34I/O,ADC,FS-USB 2.0	5.275	4.558	4.347	4.220
PIC18F458-I/P	DIP40	32KB FLASH,1536RAM,34I/O,4TMR,ADC,PWM,S. I/O, CAN	7.825	6.761	6.448	6.260
PIC18F458-I/PT	TQFP44	32KB FLASH,1536RAM,34I/O,4TMR,ADC,PWM,S. I/O, CAN	8.763	7.571	7.220	7.010
PIC18F4580-I/P	DIP40	32KB SWFLASH,1536RAM,36I/O,4TMR,ADC,PWM, CAN	6.363	5.497	5.243	5.090
PIC18F4580-I/PT	TQFP44	32KB SWFLASH,1536RAM,36I/O,4TMR,ADC,PWM, CAN	6.263	5.411	5.160	5.010



			1-4	5-24	25-99	100+
PIC18F4510-I/PT	TQFP44	32KB SWFLASH, 1024RAM,32I/O,4TMR,ADC, EUSART	2.575	2.225	2.122	2.060
PIC18F4620-I/ML	QFN44	64KB SWFLASH,1024EPR,3968RAM,36I/O,4TMR,ADC,EUSART	6.350	5.486	5.232	5.080
PIC18F4620-I/P	DIP40	64KB SWFLASH,1024EPR,3968RAM,36I/O,4TMR,ADC,EUSART	6.200	5.357	5.109	4.960
PIC18F4620-I/PT	TQFP44	64KB SWFLASH,1024EPR,3968RAM,36I/O,4TMR,ADC,EUSART	6.100	5.270	5.026	4.880
PIC18F4680-I/PT	TQFP44	64KB SWFLASH,1024EPR,3328RAM,36I/O,4TMR,AUSART,CAN	7.525	6.502	6.201	6.020
PIC18F6490-I/PT	TQFP64	16KB FLASH,768RAM,50I/O,5TMR,ADC,LCD DRV	4.300	3.715	3.543	3.440
PIC18F6490-I/PT	TQFP64	16KB SWFLASH,1024RAM,51I/O,4TMR,ADC,LCD DRV	3.438	2.970	2.833	2.750
PIC18F6520-I/PT	TQFP64	32KB SWFLASH,1024EPR,2048RAM, 52I/O,5xPWM,ADC,AUSART	8.150	7.042	6.716	6.520
PIC18F6585-I/L	PLCC68	48KB FLASH,1024EPR,3328RAM, 53I/O,5TMR,ADC,EUSART	9.950	8.597	8.199	7.960
PIC18F6585-I/PT	TQFP64	48KB FLASH,1024EPR,3328RAM, 53I/O,5TMR,ADC,EUSART	9.838	8.500	8.106	7.870
PIC18F6510-I/PT	TQFP64	32KB SWFLASH, 2KRAM, 50I/O,4TMR,ADC, EUSART, 3V	3.225	2.890	2.657	2.580
PIC18F6511-I/PT	TQFP64	32KB SWFLASH, 2KRAM, 52I/O,4TMR,ADC, EUSART, 3V	3.375	3.024	2.781	2.700
PIC18F6515-I/PT	TQFP64	48KB SWFLASH, 2KRAM,50I/O,5TMR,ADC, 2xEUSART, 3V	3.375	3.024	2.781	2.700

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		1-4	5-24	25-99	100+
PIC18F65J50-I/PT	TQFP64 32KB SWFLASH,2KRAM,50I/O,5TMR,ADC,2xEUSART,3V,USB	3.763	3.371	3.100	3.010
PIC18F65J90-I/PT	TQFP64 32KB SWFLASH,2KRAM,50I/O,5TMR,ADC,2xEUSART,3V	3.600	3.226	2.966	2.880
PIC18F66J16-I/PT	TQFP64 96KB SWFlash,3930RAM,12MIPS,52I/O,2xEUSART,5xPWM	3.925	3.517	3.234	3.140
PIC18F66J50-I/PT	TQFP64 64KB SWFlash,3930RAM,12MIPS,52I/O,2xEUSART,USB	4.138	3.707	3.409	3.310
PIC18F66J55-I/PT	TQFP64 96KB SWFlash,3930RAM,12MIPS,52I/O,2xEUSART,USB	4.300	3.853	3.543	3.440
PIC18F66J60-I/PT	TQFP64 64KB SWFlash,3808RAM,10.4MIPS,39I/O,10BASE-T Ethernet	4.800	4.301	3.955	3.840
PIC18F66J65-I/PT	TQFP64 96KB SWFlash,3808RAM,10.4MIPS,39I/O,10BASE-T Ethernet	4.975	4.458	4.099	3.980
PIC18F6620-I/PT	TQFP64 64KB FLASH,1024EPR,3840RAM,52I/O,5TMR,ADC,AUSART	12.063	10.422	9.940	9.650
PIC18F6622-I/PT	TQFP64 64KB FLASH,1024EPR,3840RAM,53I/O,5TMR,ADC,EUSART	9.838	8.500	8.106	7.870
PIC18F6622-I/PT	TQFP64 64KB FLASH,1024EPR,3840RAM,53I/O,5TMR,ADC,EUSART	7.300	6.307	6.015	5.840
PIC18F6680-I/L	PLCC68 64KB SWFLASH,1024EPR,3328RAM,53I/O,5TMR,ADC,EUSART	10.825	9.353	8.920	8.660
PIC18F6680-I/PT	TQFP64 64KB SWFLASH,1024EPR,3328RAM,53I/O,5TMR,ADC,EUSART	10.550	9.115	8.693	8.440
PIC18F6720-I/PT	TQFP64 128KB FLASH,1024EPR,3840RAM,54I/O,5TMR,ADC,AUSART	13.413	11.588	11.052	10.730
PIC18F6722-I/PT	TQFP64 128KB SWFLASH,1024EPR,3936RAM,54I/O,2xAUSART	9.800	8.467	8.075	7.840
PIC18F6722-I/PT	TQFP64 64KB FLASH,1024EPR,3840RAM,52I/O,5TMR,ADC,AUSART	7.663	6.620	6.314	6.130
PIC18F6722-I/PT	TQFP64 128KB SWFLASH,1024EPR,3936RAM,54I/O,2xAUSART	10.288	9.218	8.477	8.230
PIC18F67J10-I/PT	TQFP64 128KB SWFLASH,3936RAM,50I/O,5TMR,AUSART,3xPWM	3.963	3.550	3.265	3.170
PIC18F67J11-I/PT	TQFP64 128KB SWFLASH,3930RAM,52I/O,5TMR,ADC,AUSART,LIN	4.175	3.741	3.440	3.340
PIC18F67J50-I/PT	TQFP64 128KB SWFLASH,3808RAM,39I/O,USB	4.563	4.088	3.760	3.650
PIC18F67J60-I/PT	TQFP64 128KB SWFLASH,3808RAM,39I/O,10BASE-T Ethernet	5.225	4.682	4.305	4.180
PIC16F946-I/PT	TQFP64 14KB FLASH,352RAM,5MIPS,53I/O,5TMR,ADC,LCD DR	3.300	2.851	2.719	2.640
PIC18F8490-I/PT	TQFP80 16KB FLASH,1024EPR,768RAM,66I/O,LIN,LCD dr	5.000	4.320	4.120	4.000
PIC18F8520-I/PT	TQFP80 32KB SWFLASH,1024EPR,2048RAM,68I/O,5 PWM,2xAUSART	8.563	7.398	7.056	6.850
PIC18F8680-I/PT	TQFP80 64KB SWFLASH,1024EPR,3328RAM,69I/O,5TMR,ADC,EUSART	11.000	9.504	9.064	8.800
PIC18F8722-I/PT	TQFP80 128KB SWFLASH,1024EPR,3936RAM,70I/O,2xEUSART	10.400	9.318	8.570	8.320
PIC18F87J10-I/PT	TQFP80 128KB SWFLASH,3936RAM,66I/O,5TMR,ADC,2xEUSART	4.325	3.875	3.564	3.460
PIC18F87J11-I/PT	TQFP80 128KB SWFLASH,3936RAM,66I/O,5TMR,ADC,2xEUSART	4.563	4.088	3.760	3.650
PIC18F87J50-I/PT	TQFP80 128KB SWFlash,3904RAM,12 MIPS,65 I/O,FS USB 2.0	4.925	4.413	4.058	3.940
PIC18F87J60-I/PT	TQFP80 128KB SWFLASH,3808RAM,55I/O,10BASE-T Ethernet	5.600	5.018	4.614	4.480
PIC18F96J60-I/PT	TQFP100 64KB Flash,3808 RAM,10.4MIPS,70I/O,10BASE-T Ethernet	5.475	4.906	4.511	4.380
PIC18F97J60-I/PF	TQFP100 128KB SWFlash,3808RAM,10.4MIPS,70I/O,10BASE-T Ethernet	6.900	6.182	5.686	5.520
PIC18F97J60-I/PT	TQFP100 128KB SWFlash,3808RAM,10.4MIPS,70I/O,10BASE-T Ethernet	5.900	5.286	4.862	4.720
PIC17C766-33/L	PLCC84 32.8KB OTP, 902RAM, 8.25MIPS, 66I/O, 3xPWM, 2xAUSART	15.463	13.360	12.741	12.370



dsPIC30F - 16-bit Digital Signal Controllers MICROCHIP

		1-4	5-24	25-99	100+
DSPIC30F2010-20I/SP	SDIP28 12KB FLASH, 512RAM, 20MIPS, 20I/O, QEI	4.275	3.694	3.523	3.420
DSPIC30F2010-20I/SO	S028 12KB FLASH, 512RAM, 20MIPS, 20I/O, QEI	4.088	3.532	3.368	3.270
DSPIC30F2010-30I/SP	SDIP28 12KB FLASH, 512RAM, 30MIPS, 20I/O, QEI	4.463	3.856	3.677	3.570
DSPIC30F2010-30I/SO	S028 12KB FLASH, 512RAM, 30MIPS, 20I/O, QEI	4.275	3.694	3.523	3.420
DSPIC30F2020-30I/SP	SDIP28 12KB FLASH, 512RAM, 30MIPS, 21I/O	6.000	5.184	4.944	4.800
DSPIC30F3012-30I/P	DIP18 24 KB FLASH, 2KB RAM, 30MIPS, 12I/O	4.600	3.974	3.790	3.680
DSPIC30F3011-30I/P	DIP40 24 KB FLASH, 1KB RAM, 30MIPS, 30I/O, QEI, 2xUART	5.688	4.914	4.687	4.550
DSPIC30F3011-30I/PT	TQFP44 24 KB FLASH, 1KB RAM, 30MIPS, 30I/O, QEI, 2xUART	5.588	4.828	4.604	4.470
DSPIC30F3013-20I/SO	S028 24 KB FLASH, 2KB RAM, 20MIPS, 20I/O, 2xUART	4.650	4.018	3.832	3.720
DSPIC30F3013-20I/SP	SDIP28 24 KB FLASH, 2KB RAM, 20MIPS, 20I/O, 2xUART	4.838	4.180	3.986	3.870
DSPIC30F3013-30I/SP	SDIP28 24 KB FLASH, 2KB RAM, 30MIPS, 20I/O, 2xUART	4.838	4.180	3.986	3.870
DSPIC30F3014-20I/PT	TQFP44 24 KB FLASH, 2KB RAM, 20MIPS, 30I/O, 2xUART	5.438	4.698	4.481	4.350

dsPIC30F - 16-bit Digital Signal Controllers MICROCHIP

			1-4	5-24	25-99	100+
DSPIC30F3014-20I/P	DIP40	24 KB FLASH, 2KB RAM, 20MIPS, 30I/O, 2xUART	5.538	4.784	4.563	4.430
DSPIC30F3014-30I/P	DIP40	24 KB FLASH, 2KB RAM, 30MIPS, 30I/O, 2xUART	5.538	4.784	4.563	4.430
DSPIC30F3014-30I/PT	TQFP44	24 KB FLASH, 2KB RAM, 30MIPS, 30I/O, 2xUART	5.438	4.698	4.481	4.350
DSPIC30F4012-20I/SO	SO28	48KB FLASH, 2KB RAM, 30MIPS, 20I/O	5.588	4.828	4.604	4.470
DSPIC30F4012-20I/SP	SDIP28	48KB FLASH, 2KB RAM, 30MIPS, 20I/O	5.775	4.990	4.759	4.620
DSPIC30F4012-30I/SO	SO28	48KB FLASH, 2KB RAM, 30MIPS, 20I/O	5.588	4.828	4.604	4.470
DSPIC30F4012-30I/SP	SDIP28	48KB FLASH, 2KB RAM, 30MIPS, 20I/O	5.775	4.990	4.759	4.620
DSPIC30F4011-30I/P	DIP40	48KB FLASH, 2KB RAM, 30MIPS, 30I/O, 2xUART	6.138	5.303	5.057	4.910
DSPIC30F4011-30I/PT	TQFP44	48KB FLASH, 2KB RAM, 30MIPS, 30I/O, 2xUART	6.038	5.216	4.975	4.830
DSPIC30F5011-30I/PT	TQFP64	66KB FLASH, 4KB RAM, 30MIPS, 52I/O, AC97	7.838	6.772	6.458	6.270
DSPIC30F6011A-30I/PF	TQFP64	132KB FLASH, 4KB RAM, 30MIPS, 52I/O	11.313	9.774	9.322	9.050
DSPIC30F5013-30I/PT	TQFP80	64KB FLASH, 4KB RAM, 30MIPS, 68I/O, AC97	8.613	7.441	7.097	6.890
DSPIC30F6014A-30I/PF	TQFP80	144KB FLASH, 8KB RAM, 30MIPS, 68I/O, AC97	11.838	10.228	9.754	9.470
DSPIC30F6015-30I/PT	TQFP64	144KB FLASH, 8KB RAM, 30MIPS, 52I/O	10.800	9.331	8.899	8.640

PIC24FJ/HJ 16-bit Microcontrollers MICROCHIP

			1-4	5-24	25-99	100+
PIC24FJ32GA002-I/SO	SO28	32KB SWFlash, 8KB RAM, 16MIPS, 21I/O	2.975	2.570	2.451	2.380
PIC24FJ32GA002-I/SP	SDIP28	32KB SWFlash, 8KB RAM, 16MIPS, 21I/O	3.175	2.743	2.616	2.540
PIC24FJ32GA004-I/ML	QFN44	32KB SWFlash, 8KB RAM, 16MIPS, 35I/O	3.463	2.992	2.853	2.770
PIC24FJ32GA004-I/PT	TQFP44	32KB SWFlash, 8KB RAM, 16MIPS, 35I/O	3.275	2.830	2.699	2.620
PIC24FJ64GA002-I/SO	SO28	64KB SWFlash, 8KB RAM, 16MIPS, 21I/O	3.253	3.089	2.946	2.860
PIC24FJ64GA002-I/SP	SDIP28	64KB SWFlash, 8KB RAM, 16MIPS, 21I/O	3.775	3.262	3.111	3.020
PIC24FJ64GA004-I/ML	QFN44	64KB SWFlash, 8KB RAM, 16MIPS, 35I/O	4.063	3.510	3.348	3.250
PIC24FJ64GA004-I/PT	TQFP44	64KB SWFlash, 8KB RAM, 16MIPS, 35I/O	3.875	3.348	3.193	3.100
PIC24FJ64GA010-I/PF	TQFP100	64KB SWFlash, 8KB RAM, 16MIPS, 84 I/O	6.025	5.206	4.965	4.820
PIC24FJ96GA010-I/PF	TQFP80	96KB SWFlash, 8KB RAM, 16MIPS, 84 I/O	6.200	5.357	5.109	4.960
PIC24HJ128GP206-I/PT	TQFP64	128KB SWFlash, 8KB RAM, 40MIPS, 53I/O	5.325	4.601	4.388	4.260
PIC24HJ128GP306-I/PT	TQFP64	128KB SWFlash, 8KB RAM, 40MIPS, 53I/O	5.475	4.730	4.511	4.380
PIC24HJ128GP506-I/PT	TQFP64	128KB SWFlash, 8KB RAM, 40MIPS, 53I/O, ECAN	5.600	4.838	4.614	4.480
PIC24HJ256GP206-I/PT	TQFP64	256KB SWFlash, 16KB RAM, 40MIPS, 53I/O	5.925	5.119	4.882	4.740
PIC24HJ256GP610-I/PT	TQFP100	256KB SWFlash, 16KB RAM, 40MIPS, 85I/O	7.638	6.599	6.293	6.110
PIC24FJ64GA006-I/PT	TQFP64	64KB Flash, 8 Kb RAM, 16MIPS, 54I/O	4.363	3.769	3.595	3.490
PIC24FJ128GA006-I/PT	TQFP64	128KB Flash, 8 Kb RAM, 16MIPS, 54I/O	4.775	4.126	3.935	3.820
PIC24FJ128GA008-I/PT	TQFP80	128KB Flash, 8 Kb RAM, 16MIPS, 70I/O	5.138	4.439	4.233	4.110
PIC24FJ128GA010-I/PF	TQFP100	128KB Flash, 8 Kb RAM, 16MIPS, 86I/O	6.438	5.562	5.305	5.150
PIC24FJ64GA008-I/PT	TQFP80	64KB Flash, 8 Kb RAM, 16MIPS, 70I/O	4.725	4.082	3.893	3.780
PIC32MX340F512H-80I/PT	TQFP64	64 Pin, 512 KB Flash, 32 KB RAM, 80 MHz, 10-Bit ADC, DMA	7.425	6.415	6.118	5.940

dsPIC33F - 16-bit Digital Signal Controllers MICROCHIP

			1-4	5-24	25-99	100+
DSPIC33FJ12GP201-I/SO	SO18	12KB SWFlash, 1KB RAM, 40MIPS, 21I/O, DSP	2.975	2.570	2.451	2.380
DSPIC33FJ12GP201-I/P	DIP18	12KB SWFlash, 1KB RAM, 40MIPS, 21I/O, DSP	3.075	2.657	2.534	2.460
DSPIC33FJ12GP202-I/SO	SO28	12KB SWFlash, 1KB RAM, 40MIPS, 21I/O, DSP	3.438	2.970	2.833	2.750
DSPIC33FJ12GP202-I/SP	SDIP28	12KB SWFlash, 1KB RAM, 40MIPS, 21I/O, DSP	3.638	3.143	2.997	2.910
DSPIC33FJ12MC202-I/SO	SO28	12KB SWFlash, 1KB RAM, 40MIPS, 21I/O, DSP, QEI	3.575	3.089	2.946	2.860
DSPIC33FJ12MC202-I/SP	SDIP28	12KB SWFlash, 1KB RAM, 40MIPS, 21I/O, DSP, QEI	3.838	3.316	3.162	3.070
DSPIC33FJ32MC204-I/PT	TQFP44	32KB SWFlash, 8KB RAM, 40MIPS, DSP	4.100	3.542	3.378	3.280
DSPIC33FJ64GP206-I/PT	TQFP64	64KB SWFlash, 8KB RAM, 40MIPS, DSP	5.200	4.493	4.285	4.160
DSPIC33FJ64GP706-I/PT	TQFP64	64KB SWFlash, 8KB RAM, 40MIPS, 2xCAN, DSP	6.300	5.443	5.191	5.040
DSPIC33FJ128GP206-I/PT	TQFP64	128KB SWFlash, 16KB RAM, 40MIPS, 2xCAN, DSP	5.538	4.784	4.563	4.430
DSPIC33FJ128GP706-I/PT	TQFP64	128KB SWFlash, 16KB RAM, 40MIPS, 2xCAN, DSP	6.638	5.735	5.469	5.310
DSPIC33FJ128MC706-I/PT	TQFP64	128KB SWFlash, 16KB RAM, 40MIPS, CAN, DSP, MC	6.475	5.594	5.335	5.180
DSPIC33FJ128MC708-I/PT	TQFP80	128KB SWFlash, 16KB RAM, 69I/O, 40MIPS, 2 CAN, DSP	8.063	6.966	6.644	6.450
DSPIC33FJ256GP506-I/PT	TQFP64	256KB SWFlash, 16KB RAM, 40MIPS, CAN, DSP	6.363	5.497	5.243	5.090
DSPIC33FJ256GP510-I/PT	TQFP100	256KB SWFlash, 16KB RAM, 40MIPS, CAN, DSP	7.363	6.361	6.067	5.890
DSPIC33FJ256GP710-I/PT	TQFP100	256KB SWFlash, 30KB RAM, 40MIPS, 2xCAN, DSP	8.325	7.193	6.860	6.660

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Development Tools MICROCHIP

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AC162049	Universal Program Module ICD2, PICSTART, PROMATE	39.99
AC162050	MPLAB ICD 2 Header Interface 8PDIP for PIC12F629/67	25.00

Development Tools MICROCHIP

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AC164103	rfPIC 433 Mhz Receiver	25.50
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DV164027	MPLAB In-Circuit Debugger 2 Module with DM300027	239.98
DV164032	MPLAB ICD 2 kit with dsPICDEM 1.1 Demo Board	399.99
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DV164120	ICKit 2 Starter Kit	49.99
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PROMATE 3



DV244005/AC244002

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PIC-P28-USB	ICSP/ICD ENABLED 28 PIN PIC MICRO PROTOTYPE BOARD WITH USB	34.76
PIC-P40N-20MHz	ICSP/ICD ENABLED 40 PIN PIC MICRO PROTOTYPE BOARD	19.42
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	SOURCE ARM DEBUGGER	80.81
ARM-USB-TINY	LOW COST ARM USB JTAG (SUPPORTED BY OPENOCD OPEN SOURCE	
	ARM DEBUGGER)	58.75
AVR-H128-C	ATMega128 HEADER BOARD WITH STKxxx COMPATIBLE 10 PIN ICSP CONNECTOR	47.13
AVR-JTAG-L	JTAG DONGLE FOR PROGRAMMING AND EMULATION	62.86
AVR-JTAG-USB	OPTOISOLATED USB JTAG DONGLE FOR PROGRAMMING AND EMULATION	56.92
AVR-M16	AT Mega16 HEADER BOARD WITH JTAG CONNECTOR	26.67
AVR-M32	AT Mega32 HEADER BOARD WITH JTAG CONNECTOR	29.82
AVR-MT-A	DEVELOPMENT BOARD FOR 20 PIN AVR MICROCONTROLLER	
	WITH STKxxx COMPATIBLE 10 PIN ICSP	44.92
AVR-MT128	DEVELOPMENT BOARD FOR ATMega128 AVR MICROCONTROLLER	
	WITH JTAG AND STKxxx COMPATIBLE 10 PIN ICSP	68.08
AVR-P20B-10MHz	AVR MICROCONTROLLER PROTOTYPE BOARD FOR 20 PIN DEVICES	
	WITH STKxxx COMPATIBLE 10 PIN ICSP CONNECTOR	19.42
AVR-P28B-8MHz	AVR MICROCONTROLLER PROTOTYPE BOARD FOR 28 PIN DEVICES	
	WITH STKxxx COMPATIBLE 10 PIN ICSP	19.42
AVR-P40-USB	AVR MICROCONTROLLER PROTOTYPE BOARD WITH USB, JTAG and	
	STKxx COMPATIBLE 10 PIN ICSP	34.76
AVR-P40N-8535-8MHz	AVR MICROCONTROLLER PROTOTYPE BOARD WITH STKxxx	
	COMPATIBLE 10 PIN ICSP	19.42
AVR-PG1B	STKxxx COMPATIBLE ICSP SERIAL PORT DONGLE PROGRAMMER	15.66
AVR-PG2B	STKxxx COMPATIBLE ICSP PARALLEL PORT DONGLE PROGRAMMER	15.66
CS-E9302	DEV. BOARD FOR EP9301/EP9302 ARM920T uC c USB, RS232,	
	ETHERNET, COMPACT FLASH CONNECTOR	187.42
LPC-E2124	BOARD WITH ETHERNET INTERFACE FOR LPC2124 ARM7TDMI-S	
	MICROCONTROLLER	110.22
LPC-E2214	LPC2214 ARM7TDMI-S DEVELOPMENT BOARD, 1MB EXTERNAL FLASH,	
	1MB EXTERNAL SRAM, USB, RS232, ETHERNET	173.45
LPC-L2294	LPC2294 ARM7TDMI-S HEADER BOARD WITH 1MB SRAM AND 4MB FLASH	173.92
LPC-MT-2106	DEVELOPMENT BOARD FOR LPC2106 ARM MICROCONTROLLER	89.92
LPC-P2148	PROTOTYPE FOR LPC2148 ARM7TDMI-S MICROCONTROLLER	82.28
MAXQ-JTAG	MAXQ JTAG PROGRAMMER/DEBUGGER, LPT PORT	21.99
MAXQ-JTAG-USB	MAXQ JTAG PROGRAMMER/DEBUGGER, USB PORT	58.75
MAXQ-H2000	MAXQ2000-RAX HEADER BOARD	26.40
MAXQ-P2000	MAXQ2000-RAX PROTOTYPE BOARD	44.04
MAXQ-2000STK	MAXQ2000-RAX STARTERKIT EVALUATION BOARD	73.45
MSP430-449STK2	MPS430F449 STARTERKIT DEVELOPMENT BOARD	90.80
MSP430-H1121	MPS430F1121 HEADER BOARD	15.66
MSP430-H149	MPS430F149 HEADER BOARD	30.22
MSP430-H169	MPS430F169 HEADER BOARD	36.11
MSP430-H449	MPS430F449 HEADER BOARD	31.39
MSP430-JTAG	JTAG FOR PROGRAMMING AND FLASH EMULATION	21.99
MSP430-JTAG-ISO	JTAG FOR PROGRAMMING AND FLASH EMULATIONp optoisolated	146.98
MSP430-JTAG-TINY	JTAG FOR PROGRAMMING AND FLASH EMULATION	80.81

Development Tools RABBIT SEMICONDUCTOR

1+

RCM3700 DEV KIT
RCM3720 Ethernet conn.kit
RCM3365 DEV KIT
ZigBEE Application KIT

Development kit for the RCM3700 series
 RCM3720 series Ethernet connection kit
 RCM3365 Dev Kit, 32MB memory card, Ethernet support
 App Kit with RCM3720 & MaxStream's XBee RF Modem

322.00
 216.00
 344.25
 420.00



ZigBee/802.15.4 Application Kit



Camera Interface Application Kit



Wireless Control Application Kit



Ethernet Connection Kit

Transistors 2N, PN

1-4 5-24 25-99 100+ 500+

PN2222A	TO92	NPN 75/40V 600mA 500mW 300MHz	0.036	0.026	0.024	0.021	0.018
PN2907A	TO92	PNP 60/60V 600mA 500mW 200MHz	0.036	0.026	0.024	0.021	0.018
2N5401	TO92	PNP 150V 600mA 500mW 300MHz	0.031	0.022	0.020	0.018	0.015
2N5551	TO92	NPN 160V 600mA 625mW 100MHz	0.031	0.022	0.020	0.018	0.015

Transistors 2S

1-9 10-99 100+ 1000+ 5000+

2SC1740S ROHM	SC72	NPN 60/50V 150mA 0.3W 180 MHz	0.025	0.023	0.021	0.019	0.018
2SC4043S ROHM	SC72	NPN 20/11V 50mA 0.3W 3.2GHz 3.5dB	0.059	0.053	0.049	0.043	0.041
2SB772	TO126	PNP 40/30V 3A 10W Hfe 60-400 80MHz TO126	0.086	0.078	0.072	0.063	0.060
2SD882	TO126	NPN 40/30V 3A 10W Hfe 60-400 90MHz TO126	0.092	0.083	0.077	0.067	0.064

SMD version of 2SC4043S - 2SC3838K - page 67

SMD version of 2SC1740S - 2SC2412K - page 67

Transistors BC PHILIPS/ON SEMICONDUCTOR/FAIRCHILD

1-9 10-99 100-499 500-1999 2000+

BC327-40	TO92	PNP 45V 500mA 0.8W 250/600 100MHz	0.047	0.031	0.028	0.025	0.024
BC327-40 DIV	TO92	PNP 50/45V 800mA 625mW 260MHz	0.026	0.017	0.015	0.014	0.013
BC337-25	TO92	NPN 45V 500mA 0.8W 160/400 100MHz	0.047	0.031	0.028	0.025	0.024
BC337-25 DIV	TO92	NPN 50/45V 800mA 360mW 210MHz	0.026	0.017	0.015	0.014	0.013
BC337-40	TO92	NPN 45V 500mA 0.8W 250/600 100MHz	0.047	0.031	0.028	0.025	0.024
BC337-40 DIV	TO92	NPN 50/45V 800mA 625mW 210MHz	0.026	0.017	0.015	0.014	0.013
BC517	TO92	DNPN 30V 0.5A 0.5W Hfe>30000 220MHz	0.053	0.035	0.031	0.028	0.026
BC546B	TO92	NPN 65V 100mA 0.5W 200/450 300MHz	0.035	0.023	0.021	0.019	0.018
BC546B DIV	TO92	NPN 80/65V 100mA 500mW 300MHz	0.019	0.013	0.011	0.010	0.009
BC547C	TO92	NPN 45V 100mA 0.5W 420/800 300MHz	0.035	0.023	0.021	0.019	0.018
BC547C DIV	TO92	NPN 50/45V 100mA 500mW 300MHz	0.019	0.013	0.011	0.010	0.009
BC549C	TO92	NPN 30V 100mA 0.5W 420/800 300MHz	0.051	0.034	0.030	0.028	0.025
BC549C DIV	TO92	NPN 30/30V 100mA 500mW 300MHz	0.020	0.014	0.012	0.011	0.010
BC550C	TO92	NPN 45V 100mA 0.5W 420/800 300MHz	0.051	0.034	0.030	0.028	0.025
BC550C DIV	TO92	NPN 50/45V 100mA 500mW 300MHz	0.020	0.014	0.012	0.011	0.010
BC556B	TO92	PNP 65V 100mA 0.5W 220/475 200MHz	0.035	0.023	0.021	0.019	0.018
BC556B DIV	TO92	PNP 65/65V 100mA 500mW 300MHz	0.019	0.013	0.011	0.010	0.009
BC557C	TO92	PNP 45V 100mA 0.5W 420/800 200MHz	0.035	0.023	0.021	0.019	0.018
BC557C DIV	TO92	PNP 45V 100mA 0.5W 420/800 200MHz	0.019	0.013	0.011	0.010	0.009
BC559C	TO92	PNP 30V 100mA 0.5W 320/800 200MHz	0.056	0.037	0.033	0.030	0.028
BC560C	TO92	PNP 45V 100mA 0.5W 420/800 200MHz	0.051	0.033	0.030	0.027	0.025
BC618	TO92	DNPN 55V 1A 0.625W Hfe>10000 150MHz	0.063	0.041	0.037	0.034	0.031
BC639	TO92	NPN 80V 1A 0.8W 40/250 130MHz	0.086	0.057	0.050	0.047	0.043
BC639 DIV	TO92	NPN 100/80V 1A 830mW 100MHz	0.065	0.043	0.038	0.035	0.033
BC640	TO92	PNP 80V 1A 0.8W 40/250 50MHz	0.086	0.057	0.050	0.046	0.043
BC640 DIV	TO92	PNP 100/80V 1.5A 625mW 150MHz	0.065	0.043	0.038	0.035	0.033

Transistors ZETEX E-Line~TO92			1-24	25-99	100+	500+	
ZTX320		NPN 30/15V 600MHz 6 dB 1.7pF 300 mW CBE	0.213	0.194	0.170	0.157	
ZTX958		PNP 400/400V 0.5A hfe 100 Ucesat 0.40V CBE	0.642	0.585	0.514	0.476	
ZTX651		NPN 80/60V 2A hfe 100 Ucesat 0.5V CBE	0.441	0.402	0.353	0.326	
ZTX658		NPN 400/400V 0.5A hfe 50 Ucesat 0.5V CBE	0.478	0.435	0.382	0.354	
ZTX712		PNP 80/60 0.8A hfe 5K Ucesat 1.25V CBE	0.271	0.247	0.217	0.201	
ZTX751		PNP 80/60V 2A hfe 100 Ucesat 0.5V CBE	0.441	0.402	0.353	0.327	
ZTX451		NPN 80/60V 1A hfe 50 Ucesat 0.35V CBE	0.291	0.265	0.233	0.216	
ZTX453		NPN 120/100V 1A hfe 40 Ucesat 0.7V CBE	0.291	0.265	0.233	0.216	
ZTX550		PNP 60/45V 1A hfe 100 Ucesat 0.25V CBE	0.291	0.265	0.233	0.216	
ZTX549		PNP 35/30V 1A hfe 100 Ucesat 0.25V CBE	0.269	0.245	0.215	0.199	
ZTX553		PNP 120/100V 1A hfe 40 Ucesat 0.25V CBE	0.291	0.265	0.233	0.216	
ZTX705		PNP DARL140/120V 1A hfe 3K Ucesat 1.3V CBE	0.477	0.435	0.382	0.353	
ZTX601		NPN DARL180/160V 1A hfe 2K Ucesat 1.2V CBE	0.477	0.435	0.382	0.354	
ZTX603		NPN DARL100/80V 1A hfe 5K Ucesat 1V CBE	0.441	0.402	0.353	0.326	
ZTX749		PNP 35/25 2A hfe 100 Ucesat 0.6V CBE	0.441	0.402	0.353	0.326	
ZTX690B		NPN 45/45V 2A hfe 400 Ucesat 0.5V CBE	0.558	0.509	0.447	0.414	
ZTX790A		PNP 50/40V 2A hfe 150 Ucesat 0.75V CBE	0.579	0.528	0.463	0.429	
ZTX653		NPN 120/100V 2A hfe 100 Ucesat 0.5V CBE	0.477	0.435	0.382	0.354	
ZTX753		PNP 120/100V 2A hfe 100 Ucesat 0.5V CBE	0.477	0.435	0.382	0.353	
ZTX857		NPN 330/300V 3A hfe 100 Ucesat 0.25V CBE	0.593	0.540	0.474	0.439	
ZTX869		NPN 60/25V 5A hfe 250 Ucesat 0.22V CBE	0.642	0.585	0.514	0.476	
ZTX949		PNP 50/30V 4.5A hfe 100 Ucesat 0.32V CBE	0.593	0.540	0.474	0.439	
ZTX951		PNP 100/60V 4A hfe 100 Ucesat 0.30V CBE	0.617	0.563	0.494	0.457	
ZTX1051A		NPN 150/40 4A hfe 300 Ucesat 0.21V CBE	0.535	0.487	0.428	0.396	
ZTX968		PNP 15/12V 4.5A hfe 300 Ucesat 0.30V CBE	0.642	0.585	0.514	0.476	
ZTX851		NPN 150/60V 5A hfe 100 Ucesat 0.25V CBE	0.642	0.585	0.514	0.476	
Transistors SMD			1-9	10-99	100-499	500-2999	3000+
25C4081 ROHM SMD	SOT323	NPN 60/50V 150mA 0.2W	0.023	0.021	0.019	0.017	0.016
25C4083 ROHM SMD	SOT323	NPN 20/11V 50mA 0.2W 3.2GHz 3.5dB	0.051	0.046	0.042	0.039	0.036
BC846B SMD	SOT23	NPN 80/65V 0.1A 0.25W HFE min200	0.019	0.013	0.011	0.011	0.0093
BC847B SMD	SOT23	NPN 50/45V 0.1A 0.25W HFE 200-450	0.019	0.013	0.011	0.011	0.0093
BC847C SMD	SOT23	NPN 50/45V 0.1A 0.25W HFE 420-800	0.019	0.013	0.011	0.011	0.0093
BC850C SMD	SOT23	NPN 50/45V 0.1A 0.25W HFE 420-800 F<4dB	0.031	0.022	0.019	0.018	0.0154
BC856B SMD	SOT23	PNP 80/65V 0.1A 0.25W HFEmin200	0.019	0.013	0.011	0.011	0.0093
BC857C SMD	SOT23	PNP 50/45V 0.1A 0.35W HFE 420-800	0.019	0.013	0.011	0.011	0.0093
BC860C SMD	SOT23	PNP 50/45V 0.1A 0.25W HFE 420-800 F<4dB	0.035	0.025	0.021	0.020	0.0176
BCW30 SMD	SOT23	PNP 32V 0.1A 0.25W	0.038	0.027	0.023	0.022	0.0192
BCW30 SMD DIV	SOT23	PNP 32/32V 500mA 350mW	0.024	0.017	0.014	0.014	0.0118
BCW32 SMD	SOT23	NPN 32V 0.1A 0.25W	0.038	0.027	0.023	0.022	0.0192
BCW32 SMD DIV	SOT23	NPN 32/32V 500mA 350mW	0.024	0.017	0.014	0.014	0.0118
BC807-40 SMD	SOT23	PNP 45V 0.5A 0.25W HFE 250-600	0.020	0.014	0.012	0.011	0.0099
BC817-40 SMD	SOT23	NPN 45V 0.5A 0.25W HFE 250-600	0.020	0.014	0.012	0.011	0.0099
SST3904 ROHM SMD R1A	SOT23	NPN 60/60V 0.1A 0.2W 50/100nS	0.043	0.028	0.025	0.023	0.0215
SST3906 ROHM SMD R2A	SOT23	PNP 60/40V 0.2A 0.2W 50/100nS	0.043	0.028	0.025	0.023	0.0215
MMBT442 SMD	SOT23	NPN 300V 0.5A 0.225/0.3W	0.052	0.037	0.032	0.030	0.0261
MMBT492 SMD	SOT23	PNP 300V 0.5A 0.225/0.3W	0.052	0.037	0.032	0.030	0.0261
MMBT2222A	SOT23	NPN 75/40V 0.6A 0.25W 35/250nS	0.029	0.020	0.017	0.016	0.0143
MMBT2907A	SOT23	PNP 60/60V 0.6A 0.225W 45/100nS	0.026	0.018	0.016	0.015	0.0130
MMBT3904 SMD	SOT23	NPN 40/60V 0.2A 0.225W HFE 30-300 35/75nS	0.026	0.018	0.016	0.015	0.0130
MMBT3906 SMD	SOT23	PNP 40/40 0.2A 0.3W HFE 60-300 35/75nS	0.026	0.018	0.016	0.015	0.0130
MMBT5401 SMD	SOT23	PNP 160/150V 0.6A 0.35W HFE 60-240	0.043	0.030	0.026	0.025	0.0214
MMBT5551 SMD	SOT23	NPN 180/160V 0.6A 0.35W HFE 80-250	0.043	0.030	0.026	0.025	0.0214
SST2222A ROHM SMD R1P	SOT23	NPN 75/40V 0.6A 0.35W 25/60nS	0.043	0.029	0.025	0.023	0.0216
SST2907A ROHM SMD R2F	SOT23	PNP 60/60V 0.6A 0.2W 50/100nS	0.049	0.032	0.029	0.026	0.0244
FMMT634	SOT23	NPN DARL 100V 0.9A 0.625W HFE 15K	0.282	0.254	0.234	0.218	0.2016
FMMT617	SOT23	NPN 15V 3A 0.625W HFE 300	0.282	0.254	0.234	0.218	0.2017
25A1037AK ROHM SMD	SC59	PNP 60/50V 150mA 0.2W	0.032	0.021	0.019	0.017	0.016
25C2412K ROHM SMD	SC59	NPN 60/50V 150mA 0.2W	0.032	0.021	0.019	0.017	0.016
25C3837K ROHM SMD	SC59	NPN 30/18V 50mA 0.2W 1.5GHz 4.5dB	0.090	0.081	0.074	0.069	0.064
25C3838K ROHM SMD	SC59	NPN 20/11V 50mA 0.2W 3.2GHz 3.5dB	0.085	0.076	0.070	0.065	0.061
25D2212T100 ROHM SMD	SOT89	NPN 60V 2A(3A Imp) 2W HFE 1k-10k	0.208	0.189	0.179	0.170	0.1600
25A1797 ROHM SMD	SOT89	PNP 50V 2.0A 0.5W HFE 82-270	0.165	0.149	0.137	0.127	0.118
25C4672 ROHM SMD	SOT89	NPN 50V 2.0A 0.5W HFE 82-270	0.167	0.151	0.140	0.122	0.116
FCX717	SOT89	PNP 12V 3A 1W HFE 160-300	0.303	0.273	0.251	0.234	0.217
BCX53-16	SOT89	PNP 100/80V 1A 1W HFE 100-250	0.153	0.107	0.099	0.092	0.0848
BCX56-16	SOT89	NPN 80V 1A 1.3W HFE 100-250	0.153	0.107	0.099	0.092	0.0848
FZT600	SOT223	NPN DARL160/140V 2.0A 2W HFE 1K	0.401	0.361	0.332	0.309	0.287
FZT605	SOT223	NPN DARL140/120V 1.5A 2W HFE 2K	0.402	0.361	0.333	0.310	0.287
FZT690B	SOT223	NPN 45/45V 3A 2W HFE 500	0.491	0.442	0.407	0.379	0.351
FZT790A	SOT223	PNP 50/40V 3A 2W HFE 300-800	0.491	0.442	0.407	0.379	0.351
FZT751	SOT223	PNP 80/60V 3A 2W HFE 200-300	0.429	0.386	0.355	0.331	0.306
FZT851	SOT223	NPN 150/60V 6A 3W HFE 100-300	0.626	0.564	0.519	0.483	0.447

Transistors SMD				1-9	10-99	100-499	500-2999	3000+
FZT853	SOT223	NPN 200/100V 6A 3W HFE 100-300		0.626	0.564	0.519	0.483	0.447
FZT951	SOT223	PNP 100/60V 5A 3W HFE 100-300		0.671	0.604	0.556	0.518	0.479
FZT458	SOT223	NPN 400/400V 0.3A 2W HFE 100-300		0.378	0.340	0.313	0.292	0.270
FZT558	SOT223	PNP 400/400V 0.2A 2W HFE 100-300		0.379	0.341	0.314	0.292	0.271
FZT549	SOT223	PNP 35/30V 1.0A 2W HFE 100-300		0.379	0.341	0.314	0.292	0.271
FZT705	SOT223	PNP 140/120V 2A 2W HFE 3K		0.429	0.386	0.356	0.331	0.306
FZT603	SOT223	NPN 100/80V 2A 2W HFE 2K-100K		0.402	0.361	0.333	0.310	0.287
FZT653	SOT223	NPN 120/100V 2A 2W HFE 200-300		0.402	0.361	0.333	0.310	0.287
FZT753	SOT223	PNP 120/100V 2A 2W HFE 100-300		0.429	0.386	0.356	0.331	0.306
FZT1051A	SOT223	NPN 40V 5A 2.5W HFE 270-1200		0.426	0.384	0.353	0.329	0.305
2SD1918TRQ ROHM SMD	SOT428	NPN 160/160V 1.5A 1(10)W 80MHz		0.362	0.326	0.300	0.279	0.2584
Transistors FET SMD				1-9	10-99	100-499	500-2999	3000+
ZXM64N02X	MSOP8	NMOS 20V 5.4A 1.8W 0.040hm/4.5V		0.699	0.629	0.579	0.539	0.499
ZXM64P02X	MSOP8	PMOS 20V 3.6A 1.8W 0.090hm/4.5V		0.923	0.831	0.765	0.712	0.660
2SK3019TL ROHM SMD	SOT416	NMOS 30V 0.1A 7 Ohm/2.5V		0.049	0.039	0.036	0.033	0.031
RK4936TB ROHM SMD	S08	NMOS 30V 6A 2W 400hm/4V, DUAL		0.651	0.521	0.476	0.439	0.407
BS250F ZETEX SMD	SOT223	PMOS 45V 0.09A 14 Ohm Vgs 1.0/3.5V		0.322	0.300	0.278	0.259	0.242
ZVN2106G ZETEX SMD	SOT223	NMOS 60V 0.71A 2 Ohm Vgs 0.8/2.4V		0.425	0.386	0.367	0.347	0.327
ZVN4424G ZETEX SMD	SOT223	NMOS 240V 0.5A 6 Ohm Vgs 0.8/1.8V		0.595	0.549	0.521	0.493	0.465
ZVP2106G ZETEX SMD	SOT223	PMOS 60V 0.45A 5 Ohm Vgs 1.5/3.5V		0.638	0.595	0.552	0.514	0.480
ZVP4424G ZETEX SMD	SOT223	PMOS 240V 0.48A 11 Ohm Vgs 0.7/2.0V		0.565	0.527	0.489	0.455	0.425
BSS138 SMD	SOT23	NMOS 50V 0.2A 3.5 Ohm Vgs 0.5/1.5V		0.057	0.040	0.035	0.033	0.028
RK7002 ROHM SMD	SOT23	NMOS 60V 0.115A 0.225W, 2.20hm/4V		0.060	0.048	0.044	0.041	0.038
ZVN3310F ZETEX SMD	SOT23	NMOS 100V 0.1A 10 Ohm Vgs 0.8/2.4V		0.317	0.296	0.274	0.255	0.239
ZVP3310F ZETEX SMD	SOT23	PMOS 100V 0.075A 20 Ohm Vgs 1.5/3.5V		0.380	0.354	0.328	0.306	0.286
ZXM61N02F	SOT23	NMOS 20V 1.7A 0.625W 0.180hm/4.5V		0.258	0.232	0.214	0.199	0.184
ZXM61P02F	SOT23	PMOS 20V 0.9A 0.625W 0.600hm/4.5V		0.278	0.250	0.230	0.215	0.199
ZXM62N02E6	SOT23-6	NMOS 20V 3.2A 1.7W 0.1250hm/4.5V		0.439	0.395	0.364	0.339	0.314
ZXM62P02E6	SOT23-6	PMOS 20V 2.3A 1.7W 0.20hm/4.5V		0.439	0.395	0.364	0.339	0.314
2SK3065 ROHM SMD	SOT89	NMOS 60V 2A 0.5W 0.250hm/4V SINGLE		0.225	0.180	0.165	0.152	0.141
2SK2503TL ROHM SMD	SOT428	NMOS 60V 5A Vgs 1.0/2.5V 0.200hm/4V		0.440	0.352	0.322	0.297	0.275
2SK2504 ROHM SMD	SOT428	NMOS 100V 5A Vgs 1.0/2.5V 0.280hm/4V		0.396	0.316	0.289	0.267	0.247
2SK2715TL ROHM SMD	SOT428	NMOS 500V 2A Vgs 2.0/4.0V 4.00hm/10V		0.480	0.384	0.351	0.324	0.300
2SK3050TL ROHM SMD	SOT428	NMOS 600V 2A 24W 4.40hm/10V		0.456	0.365	0.334	0.308	0.285
RK3055Etl ROHM SMD	SOT428	NMOS 60V 8A 20W Vgs 1.0/2.5V 0.150hm/10V		0.364	0.291	0.266	0.246	0.227
2SK3018T ROHM SMD	SOT323	NMOS 30V 0.1A 0.2W Vgs 0.8/1.5V 50hm/4V		0.048	0.039	0.035	0.033	0.030
UM5K1NTR ROHM SMD	SOT353	Dual NMOS 30V 0.1A 0.15W Vgs 0.8/1.5V 50hm/4V		0.079	0.071	0.066	0.061	0.057
RSQ035N03 ROHM SMD	TSMT6	NMOS 30V 3.5A 1.25W Vgs2.5/10V 60mOhm/4.5V		0.175	0.158	0.145	0.135	0.1252
RSQ035P03 ROHM SMD	TSMT6	PMOS 30V 3.5A 1.25W Vgs2.5/10V 60mOhm/4.5V		0.175	0.158	0.145	0.135	0.1252
Transistors BD, BDX				1-4	5-24	25-99	100+	500+
BD139	TO126	NPN 80V 1.5A 8W 100 250MHz		0.111	0.089	0.081	0.075	0.0696
BD140	TO126	PNP 80V 1.5A 8W 100 75MHz		0.111	0.089	0.081	0.075	0.0696
BD237	TO126	NPN 80V 2.0A 25W		0.233	0.186	0.170	0.157	0.1454
BD237 DIV	TO126	NPN 80V 2.0A 25W		0.162	0.130	0.119	0.109	0.1014
BD238	TO126	PNP 80V 2.0A 25W		0.233	0.186	0.170	0.157	0.1454
BD238 DIV	TO126	PNP 80V 2.0A 25W		0.162	0.130	0.119	0.109	0.1014
BD681S	TO126	NPN Darl 100V 4A 14W HFE 750		0.222	0.177	0.162	0.150	0.1386
BD681 DIV	TO126	NPN Darl 100V 4A 14W HFE 750		0.172	0.138	0.126	0.116	0.1077
BD682S	TO126	PNP Darl 100V 4A 14W Hfe 750		0.220	0.176	0.161	0.148	0.1372
BDW93C	TO220	NPN Darl 100V 12A 80W		0.484	0.393	0.359	0.331	0.3120
BDW94C	TO220	PNP Darl 100V 12A 80W		0.515	0.418	0.382	0.352	0.3321
Transistors BF, BFG, BFR, BFY				1-9	10-99	100+	1000+	3000+
BF459	TO126	NPN 300V 100mA 6W		0.215	0.178	0.153	0.139	
BFG97	SOT223	NPN 20V 100mA 0.5W 5GHz		0.666	0.550	0.507	0.430	
BFG135	SOT223	NPN 25V 150mA 1W 7GHz		1.059	0.874	0.806	0.683	
BFR91A	SOT37	NPN 12V 35mA 0.3W 6GHz		0.307	0.254	0.234	0.198	
BFR93A	SOT23	NPN 12V 35mA 0.25W 5GHz		0.151	0.106	0.092	0.087	0.075
BFR96TS	TO50(3)	NPN 15V 100mA 0.7W 5GHz 11.5dB		0.374	0.309	0.284	0.241	
Transistors BU, BUT				1-4	5-24	25-99	100+	500+
BU2508AF	SOT199	NPN 1500/700V 8A 45W 0.6uS		1.526	1.350	1.291	1.174	
BU508AF	SOT199	NPN 1500/700V 8A 60W 0.55uS		1.565	1.384	1.324	1.203	
BUT11A1 Philips	SOT78	NPN 1000/450V 5A 100W		0.454	0.403	0.363	0.318	0.303
BUT11A	SOT78	NPN 1000/450V 5A 100W		0.497	0.441	0.398	0.348	0.331
Transistors MJE, MPSA				1-4	5-24	25-99	100+	500+
MJE13005	TO220	NPN 400V 4A 75W		0.232	0.205	0.185	0.162	0.154
MJE13007	TO220	NPN 400V 8A 80W		0.309	0.281	0.260	0.227	0.216
MJE340 (KSE340)	TO126	NPN 300V 0.5A 20W		0.188	0.167	0.151	0.132	0.125
MJE350 (KSE350)	TO126	PNP 300V 0.5A 20W		0.195	0.173	0.156	0.137	0.130

Transistors MJE, MPSA

			1-9	10-99	100+	500+	2000+
MPSA13	TO92	DNPN 30V 0.5A 0.625W 125MHz	0.038	0.030	0.028	0.026	0.024
MPSA13 DIV	TO92	DNPN 30V 0.5A 0.625W 125MHz	0.029	0.024	0.022	0.020	0.018
MPSA42	TO92	PNP 300V 0.5A 0.625W 50MHz	0.039	0.031	0.028	0.026	0.024
MPSA42 DIV	TO92	PNP 300V 0.5A 0.625W 50MHz	0.030	0.024	0.022	0.020	0.019
MPSA92	TO92	PNP 300V 0.5A 0.625W 50MHz	0.039	0.031	0.028	0.026	0.024
MPSA92 DIV	TO92	PNP 300V 0.5A 0.625W 50MHz	0.030	0.024	0.022	0.020	0.019

Transistors TIP

			1-4	5-24	25-99	100-499	500+
TIP41C	TO220	NPN 100V 6A 65W	0.199	0.185	0.170	0.151	0.137
TIP42C	TO220	PNP 100V 6A 65W	0.199	0.185	0.170	0.151	0.137
TIP122	TO220	NPN DARLINGTON 100V 5A 65W	0.208	0.194	0.178	0.158	0.144
TIP127	TO220	PNP DARLINGTON 100V 5A 65W	0.208	0.194	0.178	0.158	0.144

Digital Transistors ROHM

			1-9	10-99	100+	500+	3000+
DTA114TKA ROHM SMD	SC59	DIGI TRANS Rin 10k PNP 50V 100mA	0.035	0.023	0.021	0.019	0.0177
DTA114YKA ROHM SMD	SC59	DIGI TRANS Rin 10k Rbe 47k PNP 50V 70mA	0.035	0.023	0.021	0.019	0.0177
DTC114TKA ROHM SMD	SC59	DIGI TRANS Rin 10k NPN 50V 100mA	0.035	0.023	0.021	0.019	0.0177
DTC114YKA ROHM SMD	SC59	DIGI TRANS Rin 10k Rbe 47k NPN 50V 70mA	0.035	0.023	0.021	0.019	0.0177
DTC124TKA ROHM SMD	SC59	DIGI TRANS Rin 22k NPN 50V 100mA	0.035	0.023	0.021	0.019	0.0177
DTC143TKA ROHM SMD	SC59	DIGI TRANS Rin 4.7k NPN 50V 100mA	0.035	0.023	0.021	0.019	0.0177
DTC144TKA ROHM SMD	SC59	DIGI TRANS Rin 47k NPN 50V 100mA	0.035	0.023	0.021	0.019	0.0177
IMD2AT108 ROHM SMD	SC74A	COMPL DIG TRANS Rin 22k PNP/NPN 50V 30mA	0.061	0.049	0.045	0.041	0.0383

ROHM : SMT3
EIAJ : SC-59

All terminals have same dimensions

Abbreviated symbol : 54

IN — R₁ — 10K —> (1) GND
 (2) IN —> Transistor
 (3) OUT —> OUT
 GND(+)

DTA114YKA

ROHM : SMT3
EIAJ : SC-59

All terminals have same dimensions

Abbreviated symbol : 64

IN — R₁ — 10K —> (1) GND
 (2) IN —> Transistor
 (3) OUT —> OUT
 GND

DTC114YKA

ROHM : SMT3
EIAJ : SC-59

All terminals have same dimensions

Abbreviated symbol : 03

B — R₁ —> (1) Emitter
 (2) Base —> Transistor
 (3) Collector —> C
 E —> E

B : Base
 C : Collector
 E : Emitter

DTC114TKA - R₁=10K
 DTC124TKA - R₁ = 22K
 DTC143TKA - R₁ = 4.7K
 DTC144TKA - R₁ = 47K

Transistors FET ZETEX

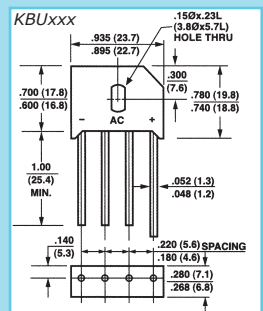
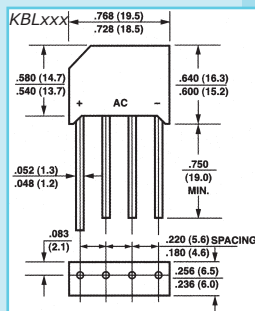
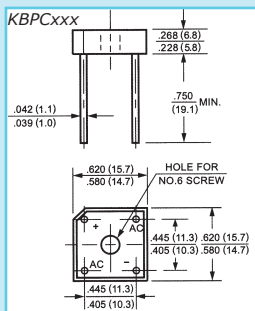
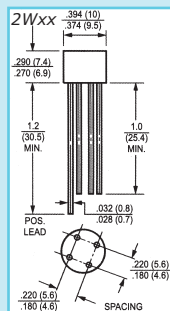
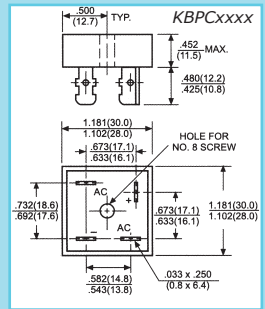
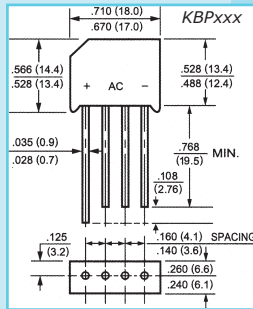
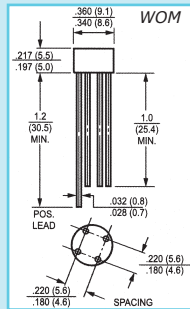
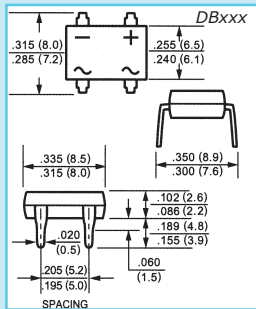
			1-24	25-99	100+	500+
ZVNL120A	TO92	N MOSFET 200V 0.18A 10 Ohm Vgs 0.5/1.5V	0.352	0.321	0.282	0.261
BS250P	TO92	P MOSFET 45V 0.23A 0.7W 140hm Vgs 1/3.5V	0.371	0.338	0.296	0.274
ZVN2106A	TO92	N MOSFET 60V 0.45A 2 Ohm Vgs 0.8/2.4V	0.358	0.326	0.286	0.265

Transistors FET ZETEX			1-24	25-99	100+	500+
ZVN3306A	TO92	N MOSFET 60V 0.27A 5 Ohm Vgs 0.8/2.4V	0.338	0.308	0.270	0.250
ZVN4210A	TO92	N MOSFET 100V 0.45A 1.8 Ohm Vgs 0.8/2.4V	0.419	0.381	0.335	0.310
ZVN4306A	TO92	N MOSFET 60V 1.1A 0.45 Ohm Vgs 1.3/3V	0.908	0.827	0.726	0.673
ZVP3310A	TO92	P MOSFET 100V 0.14A 20 Ohm Vgs 1.5/3.5V	0.349	0.318	0.279	0.258
ZVP4424A	TO92	P MOSFET 240V 0.2A 11 Ohm Vgs 0.7/2V	0.580	0.529	0.464	0.430
Transistors FET			1-24	25-99	100+	500+
BS107	TO92	NDMOS 200V 0.12A 0.25W 10/15nS 28 Ohm	0.204	0.190	0.177	0.157
BS108	TO92	NDMOS 200V 0.23A 10/30nS	0.207	0.192	0.180	0.159
BS170P	TO92	NDMOS 60V 0.5A 0.83W 5 Ohm	0.088	0.080	0.070	0.065
J175	TO92	PJFET 30V 125 Ohm 15/30nS	0.181	0.168	0.157	0.139
PN4393	TO92	NJFET 30V 100 Ohm 0.2W	0.100	0.093	0.087	0.077
Power MOSFET			1-24	25-99	100+	500+
BUZ11	TO220	N 50V 30A 75W 0.040R	0.666	0.592	0.528	0.493
STW20NM50	TO220	NMOS 500V 20A 0.2 Ohm Vgs(th)=4V(typ)	3.017	2.682	2.392	2.235
IRF530	TO220	N 100V 14A 75W 0.16R	0.512	0.455	0.406	0.380
IRF540	TO220	N 100V 30A 150W 0.077R	0.790	0.702	0.626	0.585
IRF630	TO220	N 200V 9.0A 75W 0.4R	0.512	0.455	0.406	0.379
IRF640	TO220	N 200V 18A 125W 0.18R	0.445	0.395	0.352	0.329
IRF730	TO220	N 400V 5.5A 100W 1.0R	0.621	0.552	0.493	0.460
IRF740	TO220	N 400V 10A 125W 0.55R	0.847	0.753	0.671	0.628
IRF830	TO220	N 500V 4.5A 75W 1.5R	0.569	0.506	0.451	0.422
IRF840	TO220	N 500V 8.0A 125W 0.85R	0.760	0.676	0.603	0.563
IRFP250N	TO247	N 200V 30A 214W 0.075R	1.414	1.251	1.088	
IRFP460	TO247	N 500V 20A 280W 0.27R	2.447	2.165	1.883	
IRF9530N	TO220	P 100V 14A 79W 0.2R	0.621	0.552	0.492	0.460
IRF9540N	TO220	P 100V 23A 140W 0.117R	0.819	0.728	0.649	0.607
IRF9630	TO220	P 200V 6.5A 74W 0.8R	0.598	0.529	0.460	
IRF9640	TO220	P 200V 11A 125W 0.5R	0.909	0.804	0.699	
Power IGBT Transistors			1-24	25-99	100+	
BUP314	TO218AB	IGBT 1200V 52A 300W Ucesat typ. 2.7V/25A	6.563	5.805	5.048	
Diodes up to 0.3A			1-9	10-99	100-999	1000-4999 5000+
1N4148	DO35	100V 0.15A UFM1V/0.01A IFM0.5A IR5uA 4nS, Fast	0.0202	0.0081	0.0049	0.0043 0.0040
1N4148 MBR	DO35	100V 0.15A UFM1V/0.01A IFM0.5A IR5uA 4nS, Fast	0.0188	0.0075	0.0046	0.0040 0.0038
BAT42	DO35	Schottky 30V 0.2A Ifrm 0.5A Uf0.4V/10mA; 5ns 7pF	0.0544	0.0459	0.0408	0.0340
Diodes up to 1A			1-9	10-99	100-999	1000-4999 5000+
1N4004	DO41	400V 1A UFM1.1V/1A IFM30A IR5uA	0.036	0.014	0.009	0.008 0.0072
1N4007	DO41	1000V 1A UFM1.1V/1A IFM30A IR5uA	0.039	0.016	0.010	0.008 0.0078
1N4007 T/R	DO41	1000V 1A UFM1.1V/1A IFM30A IR5uA	0.040	0.016	0.010	0.009 0.0081
1N4007G	DO41	1000V 1A UFM1.1V/1A IFM30A IR5uA, Glass passiv.	0.039	0.019	0.016	0.014 0.0131
1N4007 MBR	DO41	1000V 1A UFM1.1V/1A IFM30A IR5uA	0.050	0.020	0.012	0.011 0.0100
BY133	DO41	1300V 1A UFM1.1V/1A IFM30A IR5uA	0.0562	0.0225	0.0137	0.0119 0.0112
1N5819	DO41	40V 1A UFM0.6V/1A IFM25A IR1mA, Schottky	0.055	0.025	0.019	0.0168 0.0159
1N5819 T/R	DO41	40V 1A UFM0.6V/1A IFM25A IR1mA, Schottky	0.055	0.025	0.019	0.0168 0.0159
BA157	DO41	400V 1A UFM1.3V/1A IFM30A IR5uA 150nS, Fast	0.0332	0.0152	0.0116	0.0100 0.0095
BA159	DO41	1000V 1A UFM1.3V/1A IFM30A IR5uA 500nS, Fast	0.0332	0.0152	0.0116	0.0100 0.0095
FR104	DO41	400V 1A UFM1.3V/1A IFM30A IR5uA 150nS, Fast	0.0324	0.0148	0.0113	0.0098 0.0093
FR106	DO41	800V 1A UFM1.3V/1A IFM30A IR5uA 500nS, Fast	0.0327	0.0150	0.0114	0.0099 0.0094
FR107	DO41	1000V 1A UFM1.3V/1A IFM30A IR5uA 500nS, Fast	0.0324	0.0148	0.0113	0.0098 0.0093
HER105	DO41	400V 1A UFM1.3V/1A IFM30A IR5uA 50ns, Hi-Eff	0.057	0.026	0.0197	0.0171 0.0161
HER107	DO41	800V 1A UFM1.7V/1A IFM30A IR5uA 70ns, Hi-Eff	0.057	0.026	0.0197	0.0171 0.0161
HER108	DO41	1000V 1A UFM1.7V/1A IFM30A IR5uA 70ns, Hi-Eff	0.057	0.026	0.0197	0.0171 0.0161
SF15	DO41	300V 1A UFM1.25V/1A IFM30A IR5uA 35nS, Super Fast	0.0787	0.0360	0.0274	0.0238 0.0225
SF16	DO41	400V 1A UFM1.25V/1A IFM30A IR5uA 35nS, Super Fast	0.0820	0.0375	0.0286	0.0248 0.0234
BYV26C	SOD57	600V 1A IFM30A IR5uA 30nS Super Fast Avalanche Diode	0.2477	0.2247	0.1911	0.1769
MBRB1660	TO263	60V 16A UFM0.75V/16A IR1mA, Schottky	1.5508	1.3718	1.1929	
Diodes up to 5A			1-9	10-99	100-499	500+ 2000+
RL202	DO15	100V 2A UFM1V/2A IFM70A IR5uA	0.0452	0.0181	0.0110	0.0096 0.0090
RL204	DO15	400V 2A UFM1V/2A IFM70A IR5uA	0.0452	0.0181	0.0110	0.0096 0.0090
RL207	DO15	1000V 2A UFM1V/2A IFM70A IR5uA	0.0543	0.0217	0.0132	0.0115 0.0109
1N5400	DO27	50V 3A UFM1V/3A IFM200A IR10uA	0.0722	0.0349	0.0277	0.0255 0.0241
1N5404	DO27	400V 3A UFM1V/3A IFM200A IR10uA	0.0763	0.0369	0.0292	0.0269 0.0254

Diodes up to 5A				1-9	10-99	100-499	500+	2000+
1N5404 T/R	DO27	400V 3A UFM1V/3A IFM200A IR10uA		0.0763	0.0369	0.0292	0.0269	0.0254
1N5407	DO27	800V 3A UFM1V/3A IFM200A IR10uA		0.0763	0.0369	0.0292	0.0269	0.0254
1N5408	DO27	1000V 3A UFM1V/3A IFM200A IR10uA		0.0763	0.0369	0.0292	0.0269	0.0254
1N5408 T/R	DO27	1000V 3A UFM1V/3A IFM200A IR10uA		0.0751	0.0363	0.0288	0.0265	0.0250
Diodes up to 5A				1-9	10-99	100-999	1000+	5000+
1N5822	DO27	40V 3A UFM0.525V/3A IFM80A IR2mA, Schottky		0.068	0.061	0.0522	0.0483	
1N5822 T/R	DO27	40V 3A UFM0.525V/3A IFM80A IR2mA, Schottky		0.079	0.071	0.0607	0.0562	
FR302	DO27	100V 3A UFM1.3V/3A IFM200A IR10uA 150nS, Fast		0.049	0.044	0.040	0.0376	0.0349
FR304	DO27	400V 3A UFM1.3V/3A IFM200A IR10uA 150nS, Fast		0.050	0.045	0.041	0.0382	0.0354
FR307	DO27	1000V 3A UFM1.3V/3A IFM200A IR10uA 500nS, Fast		0.049	0.044	0.041	0.0379	0.0351
HER303	DO27	200V 3A UFM1V/3A IFM200A IR10uA 50ns, Hi-Eff		0.072	0.0650	0.0552	0.0511	
HER305	DO27	400V 3A UFM1.3V/3A IFM200A IR10uA 50ns, Hi-Eff		0.072	0.0650	0.0552	0.0511	
HER307	DO27	800V 3A UFM1.7V/3A IFM150A IR10uA 70ns, Hi-Eff		0.072	0.0650	0.0552	0.0511	
SF35	DO27	300V 3A UFM1.25/3A IFM125A IR5uA 35nS, Super Fast		0.071	0.0647	0.0550	0.0510	
SF36	DO27	400V 3A UFM1.25/3A IFM125A IR5uA 35nS, Super Fast		0.071	0.0639	0.0544	0.0503	
Diodes above 5A				1-9	10-99	100+	500+	1000+
FR602	R6	100V 6A UFM1.3V/6A IFM300A IR10uA 150nS, Fast		0.108	0.093	0.089	0.0775	
FR604	R6	400V 6A UFM1.3V/6A IFM300A IR10uA 150nS, Fast		0.110	0.095	0.091	0.0788	
FR607	R6	1000V 6A UFM1.3V/6A IFM300A IR10uA 500nS, Fast		0.112	0.096	0.092	0.0801	
SB540 (SR504)	DO27	40V 5A UFM0.57V/5A IFM250A IR10mA, Schottky		0.104	0.089	0.085	0.0741	
SR580 (SR508)	DO27	80V 5A UFM0.70V/5A IFM250A IR10mA, Schottky		0.123	0.106	0.101	0.0881	
6A1S	R6S	100V 6A UFM0.95V/6A IFM250A IR10uA		0.0766	0.0689	0.0634	0.0591	0.0547
6A4S	R6S	400V 6A UFM0.95V/6A IFM250A IR10uA		0.0836	0.0752	0.0692	0.0645	0.0597
6A10S	R6S	1000V 6A UFM0.95V/6A IFM250A IR10uA		0.0920	0.0828	0.0762	0.0709	0.0657
HER602	R6	100V 6A UFM1V/6A IFM200A IR10uA 70nS		0.1191	0.1072	0.0987	0.0919	0.0851
HER605	R6	400V 6A UFM1.3V/6A IFM200A IR10uA 70nS		0.1200	0.1080	0.0994	0.0926	0.0857
SR1640	TO220AC	40V 16A UFM0.65V/16A IFM150A IR10mA, Schottky		0.2654	0.2366	0.2211		
SR1640CT (dual)	TO220AB	40V 16A UFM0.65V/16A IFM150A IR10mA, Schottky		0.3405	0.3036	0.2838		
SR1680	TO220AC	80V 16A UFM0.85V/16A IFM150A IR10mA, Schottky		0.3671	0.3274	0.3059		
SR1680CT (dual)	TO220AB	80V 16A UFM0.85V/16A IFM150A IR10mA, Schottky		0.3982	0.3551	0.3319		
SR3020	TO3P	20V 30A UFM0.65V/15A IFM300A IR10mA, Schottky		0.4455	0.3973	0.3713		
SR3060	TO3P	60V 30A UFM0.75V/15A IFM300A IR10mA, Schottky		0.4735	0.4222	0.3946		
Diodes SMD				1-9	10-99	100-499	500-2999	3000+
BAP64-03 SMD (SOD323)	SOD323	PIN 175V 100mA 500mW		0.134	0.094	0.087	0.081	0.0746
BAV70 SMD (SOT23)	SOT23	75V 2x125mA OC 4ns 1.5pF 250mW		0.039	0.019	0.015	0.014	0.0131
BAV99 SMD (SOT23)	SOT23	75V 2X125mA 4nS 1.5 pF 200mW		0.039	0.019	0.015	0.014	0.0131
BAW56 SMD (SOT23)	SOT23	75V 2x125mA OA 4ns 2pF 250mW		0.039	0.019	0.015	0.014	0.0131
BAS16 SMD (SOT23)	SOT23	75V 215mA 4ns 1.5pF 250mW		0.039	0.019	0.015	0.014	0.0131
BAS85 SMD (Mini Melf)	SOD80	Schottky 30V 0.2A Ifrm 0.4A UFM0.4V/10mA; 10pF		0.109	0.053	0.042	0.038	0.0363
BAT42 SMD (TMMBAT42)	SOD80	Schottky 30V 0.2A Ifrm 0.5A UFM0.4V/10mA; 5ns 7pF		0.127	0.061	0.049	0.045	0.0424
BAT54 SMD (SOT23)	SOT23	Schottky 30V 200mA 5ns 10pF		0.032	0.022	0.021	0.019	0.0178
BAT54A SMD (SOT23)	SOT23	Schottky 30V 2x200mA 5ns 10pF, konf A		0.029	0.020	0.019	0.017	0.0159
BAT54C SMD (SOT23)	SOT23	Schottky 30V 2x200mA 5ns 10pF, konf C		0.029	0.020	0.019	0.017	0.0159
BAT54C SMD ZETEX	SOT23	Schottky 30V 2x200mA 5ns 10pF, konf C		0.082	0.058	0.053	0.049	0.0457
BAT54S SMD (SOT23)	SOT23	Schottky 30V 2x200mA 5ns 10pF, konf S		0.034	0.024	0.022	0.02	0.0188
Diodes SMD				1-9	10-99	100-499	500-2499	2500+
LL4148 DIV, mini-melf	SOD80C	75V 300mA 4ns 4pF		0.032	0.013	0.0078	0.0068	0.0064
LL4148, mini-melf	SOD80C	75V 300mA 4ns 4pF		0.032	0.013	0.0078	0.0068	0.0064
LL4148 MBR, mini-melf	SOD80C	75V 300mA 4ns 4pF		0.042	0.017	0.0103	0.0090	0.0085
MCL4148 MBR, micro-melf	SOD323	100V 150mA 4ns 4pF		0.087	0.035	0.0212	0.0184	0.0173
Diodes SMD				1-9	10-99	100-999	1000-4999	5000+
1N5819 SMD(MELF)	MELF	40V 1A UFM0.6V/1A IFM30A IR1mA, Schottky		0.043	0.030	0.028	0.026	0.0237
1N5819(SS14) SMD(SMA)	SMA	40V 1A UFM0.6V/1A IFM30A IR1mA, Schottky		0.039	0.027	0.025	0.023	0.0216
S1G SMD(SMA)	SMA	400V 1A UFM1.1V/1A IFM30A IR5uA		0.028	0.018	0.0162	0.0145	0.0138
1N4007 SMD(MELF)	MELF	1000V 1A UFM1.1V/1A IFM30A IR5uA		0.037	0.024	0.0214	0.0192	0.0183
1N4007 SMD(SMA)	SMA	1000V 1A UFM1.1V/1A IFM30A IR5uA		0.024	0.016	0.0138	0.0124	0.0118
G7 SMD (SMA)	SMA	1000V 1A UFM1.1V/1A IFM30A IR5uA, Glass passiv.		0.032	0.021	0.0187	0.0168	0.0160
F7 SMD (SMA)	SMA	1000V 1A UFM1.3V/1A IFM30A IR5uA 500nS, Fast		0.051	0.034	0.0299	0.0269	0.0256
US1K (SMA)	SMA	800V 1A UFM1.7V/1A IFM30A IR10uA, 100ns, Ultra Fast		0.146	0.097	0.0855	0.0767	0.0731
ES1G (SMA)	SMA	400V 1A UFM1.25V/1A IFM30A IR5uA 35ns Super fast		0.146	0.097	0.0855	0.0767	0.0731

Diodes SMD			1-9	10-99	100-999	1000-4999	5000+
S2A SMD(SMB)	SMB	50V 1.5A UFM1.15V/1.5A IFM50A IR1uA	0.027	0.025	0.0211	0.0196	
SK26A	SMA	60V 2A UFM0.7V/2A IFM 50A IR2mA, Schottky	0.068	0.062	0.053	0.049	
S3M SMD(SMC)	SMC	1000V 3A UFM1.15V/3A IFM100A IR1uA	0.065	0.059	0.0498	0.0462	
1N5822(SS34)SMD(SMC)	SMC	40V 3A UFM0.7V/3A IFM100A IR0.5mA, Schottky	0.097	0.088	0.075	0.069	
ZC931 SMD(SOT23)	SOT23	Varicap 12Vmax,min.6.5p-max.7.8pF(2.5V)	1.421	1.294	1.136	1.052	

Bridge Rectifiers			1-9	10-99	100-499	500+	1000+
B4S SMD (DB1MS)	DB1MS	400V 0.5A UFM 1.1V/0.5A, IFM 30A, IR 5uA	0.094	0.084	0.077	0.070	0.067
B8S SMD (DB1MS)	DB1MS	800V 0.5A UFM 1.1V/0.5A, IFM 30A, IR 5uA	0.097	0.086	0.079	0.073	0.069
DB104	DB1	400V 1A UFM 1.1V/1A, IFM 50A, IR 10uA	0.093	0.083	0.077	0.070	0.067
DB107(DI108)	DB1	1000V 1A UFM 1.1V/1A, IFM 50A, IR 10uA	0.093	0.083	0.077	0.070	0.067
DB104S SMD (DB1S)	DB1S	400V 1A UFM 1.1V/1A, IFM 30A, IR 10uA	0.090	0.081	0.074	0.068	0.065
DB106S SMD (DB1S)	DB1S	800V 1A UFM 1.1V/1A, IFM 30A, IR 10uA	0.089	0.080	0.073	0.067	0.064
DB107S SMD (DB1S)	DB1S	1000V 1A UFM 1.1V/1A, IFM 30A, IR 10uA	0.091	0.081	0.075	0.068	0.065
DB151S SMD (DB-S)	DB-S	50V 1.5A UFM 1.1V/1.5A, IFM 30A, IR 10uA	0.095	0.085	0.078	0.071	0.068
W04M	WOM	400V 1.5A UFM 1V/1A, IFM 50A, IR 10uA	0.078	0.070	0.064	0.058	0.056
W08M	WOM	800V 1.5A UFM 1V/1A, IFM 50A, IR 10uA	0.078	0.070	0.064	0.058	0.056
W10M	WOM	1000V 1.5A UFM 1V/1A, IFM 50A, IR 10uA	0.081	0.073	0.067	0.061	0.058
2W04M	RC2	400V 2A UFM 1V/1A, IFM 50A, IR 10uA	0.086	0.077	0.071	0.064	0.061
2W10M	RC2	1000V 2A UFM1V/1A, IFM 50A, IR 10uA	0.087	0.078	0.072	0.066	0.062



			1-4	5-24	25-99	100+
KBP200(KBP005)	RS2	50V 2A UFM 1V/1A, IFM 50A, IR 10uA	0.104	0.089	0.085	0.077
KBP204(KBP04)	RS2	400V 2A UFM 1V/1A, IFM 50A, IR 10uA	0.105	0.089	0.085	0.078
KBP208(KBP08)	RS2	800V 2A UFM 1V/1A, IFM 50A, IR 10uA	0.105	0.090	0.086	0.078
KBP210(KBP10)	RS2	1000V 2A UFM1V/1A, IFM 50A, IR 10uA	0.107	0.091	0.087	0.079
KBPC304(KBPC104)	BR3	400V 3A UFM 1V/1.5A, IFM 50A, IR 10uA	0.130	0.110	0.106	0.096
KBPC310(KBPC110)	BR3	1000V 3A UFM1V/1.5A, IFM 50A, IR 10uA	0.132	0.112	0.108	0.098
KBL400(KBL005)	RS4	50V 4A UFM 1V/3A, IFM 150A, IR 10uA	0.240	0.205	0.196	0.178
KBL404(KBL04)	RS4	400V 4A UFM 1V/3A, IFM 150A, IR 10uA	0.240	0.204	0.195	0.178

Bridge Rectifiers			1-4	5-24	25-99	100+	
KBL410(KBL10)	RS4	1000V 4A UFM1V/3A, IFM 150A, IR 10uA	0.254	0.217	0.207	0.188	
KBU6M	RS6	1000V 6A UFM 1V/3A, IFM150A, IR10uA	0.287	0.250	0.232	0.221	
KBU8G(KBU804)	RS6	400V 8A UFM 1V/4A, IFM 150A, IR 10uA	0.330	0.287	0.266	0.254	
KBU8M(KBU810)	RS6	1000V 8A UFM 1V/4A, IFM 150A, IR 10uA	0.340	0.295	0.274	0.261	
KBPC604	BR6	400V 6A UFM 1V/3A, IFM 125A, IR 10uA	0.227	0.197	0.183	0.174	
KBPC608	BR6	800V 6A UFM 1V/3A, IFM125A, IR 10uA	0.234	0.203	0.189	0.180	
KBPC2501	MB25	100V 25A UFM 1.1V/12.5A, IFM 300A, IR 10uA	0.863	0.751	0.697	0.664	
KBPC2502	MB25	200V 25A UFM 1.1V/12.5A, IFM 300A, IR 10uA	0.863	0.751	0.697	0.664	
KBPC2504	MB25	400V 25A UFM 1.1V/12.5A, IFM 300A, IR 10uA	0.863	0.751	0.697	0.664	
KBPC2504W	MB25W	400V 25A UFM 1.1V/12.5A, IFM 300A, IR 10uA, Wire Type	0.845	0.735	0.683	0.650	
KBPC3501	MB35	100V 35A UFM 1.1V/17.5A, IFM 400A, IR 10uA	0.866	0.753	0.700	0.666	
KBPC3504	MB35	400V 35A UFM 1.1V/17.5A, IFM 400A, IR 10uA	0.866	0.753	0.700	0.666	
KBPC3508	MB35	800V 35A UFM 1.1V/17.5A, IFM400A, IR10uA	0.866	0.753	0.700	0.666	
KBPC3510	MB35	1000V 35A UFM 1.1V/17.5A, IFM 400A, IR 10uA	0.866	0.753	0.700	0.666	
KBPC3510W	MB35W	1000V 35A UFM 1.1V/17.5A, IFM 400A, IR 10uA, Wire Type	0.848	0.737	0.685	0.653	
MB5010	MB50	1000V 50A UFM 1.1V/25A, IFM 400A, IR 10uA	0.940	0.817	0.760	0.723	
SKD 25/16		1600V 20A UF 2.2V/150A, IFM 370A, 3-PHASE	12.454	11.520	10.897	10.379	
Diacs			1-9	10-99	100-999	1000+	5000+
DB3 MBR	DO35	32V 2A	0.040	0.026	0.023	0.022	0.0200
DB3	DO35	32V 2A	0.028	0.019	0.017	0.015	0.0141
Thyristors			1-24	25-99	100+	500+	
BT169D	TO92	0.8A 400V Igt 200uA	0.057	0.050	0.045	0.042	
C106M1	TO126	4A 600V Igt 200uA	0.218	0.193	0.173	0.161	
BT151-800R	TO220AB	12A 800V Igt 15mA	0.456	0.405	0.361	0.337	
SKKH 15/12 E	SEMIPAK	Thyristor/diode module 15A 1200V SEMIPAK	26.656	24.657	23.324	22.214	
SKKT 27B08 E	SEMIPAK	Thyristor module 50A 800V SEMIPAK	26.316	24.342	23.027	21.930	
SKKT 42B12 E	SEMIPAK	Thyristor module 75A 1200V SEMIPAK	26.875	24.859	23.516	22.396	
SKKT 57B12 E	SEMIPAK	Thyristor module 95A 1200V SEMIPAK	26.268	24.298	22.984	21.890	
SKKT 92B12 E	SEMIPAK	Thyristor module 150A 1200V SEMIPAK	29.858	27.618	26.125	24.881	
SKKT 162/12 E	SEMIPAK	Thyristor module 250A 1200V SEMIPAK	82.670	76.470	72.336	68.892	
Triacs			1-24	25-99	100+	500+	
MAC97A8	TO92	600V 0.6A Igt 5mA	0.134	0.119	0.106	0.099	
BT136-600	TO220AB	600V 4A Igt 35mA	0.462	0.411	0.366	0.342	
BTA06-600C	TO220AB	600V 6A Igt 35mA isolated 2.5kV	0.413	0.367	0.327	0.306	
BTA12-600B	TO220AB	600V 12A Igt 50mA isolated 2.5kV	0.547	0.487	0.434	0.405	
BTA16-600B	TO220AB	600V 16A Igt 50mA isolated 2.5kV	0.785	0.698	0.622	0.581	
BTA26-600B	TOP3	600V 25A Igt 50mA isolated 2.5kV	2.251	2.001	1.784	1.668	
BTA40-700B	RD91	700V 40A Igt 50mA isolated 2.5kV	8.031	7.104	6.177		
BTA41-600B	TOP3	600V 40A Igt 50mA isolated 2.5kV	2.375	2.111	1.883	1.760	
Zener Diodes 500mW DO35 PHILIPS/VISHAY			1-9	10-99	100-999	1000-4999	5000+
BZX55(79)C2V4 MBR	DO35	2.4V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C2V7 MBR	DO35	2.7V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C3V0 MBR	DO35	3.0V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C3V3 MBR	DO35	3.3V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C3V6 MBR	DO35	3.6V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C3V9 MBR	DO35	3.9V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C4V3 MBR	DO35	4.3V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C4V7 MBR	DO35	4.7V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C5V1 MBR	DO35	5.1V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C5V6 MBR	DO35	5.6V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C6V2 MBR	DO35	6.2V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C6V8 MBR	DO35	6.8V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C7V5 MBR	DO35	7.5V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C8V2 MBR	DO35	8.2V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C9V1 MBR	DO35	9.1V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C10 MBR	DO35	10V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C11 MBR	DO35	11V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C12 MBR	DO35	12V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C13 MBR	DO35	13V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C15 MBR	DO35	15V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C16 MBR	DO35	16V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C18 MBR	DO35	18V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C20 MBR	DO35	20V 500mW	0.028	0.019	0.017	0.015	0.014
BZX55(79)C22 MBR	DO35	22V 500mW	0.028	0.019	0.017	0.015	0.014

Zener Diodes 500mW DO35 PHILIPS/VISHAY				1-9	10-99	100-999	1000-4999	5000+
BZX55(79)C24 MBR	DO35	24V 500mW		0.028	0.019	0.017	0.015	0.014
BZX55(79)C27 MBR	DO35	27V 500mW		0.028	0.019	0.017	0.015	0.014
BZX55(79)C30 MBR	DO35	30V 500mW		0.028	0.019	0.017	0.015	0.014
BZX55(79)C33 MBR	DO35	33V 500mW		0.028	0.019	0.017	0.015	0.014
BZX55(79)C36 MBR	DO35	36V 500mW		0.028	0.019	0.017	0.015	0.014
BZX55(79)C39 MBR	DO35	39V 500mW		0.028	0.019	0.017	0.015	0.014
BZX55(79)C47 MBR	DO35	47V 500mW		0.028	0.019	0.017	0.015	0.014
Zener Diodes 500mW				1-9	10-99	100-999	1000-4999	5000+
BZX55C2V4	DO35	2.4V 500mW		0.0210	0.0138	0.0122	0.0110	0.0105
BZX55C2V7	DO35	2.7V 500mW		0.0210	0.0138	0.0122	0.0110	0.0105
BZX55C3V0	DO35	3.0V 500mW		0.0210	0.0138	0.0122	0.0110	0.0105
BZX55C3V3	DO35	3.3V 500mW		0.0210	0.0138	0.0122	0.0110	0.0105
BZX55C3V6	DO35	3.6V 500mW		0.0210	0.0138	0.0122	0.0110	0.0105
BZX55C3V9	DO35	3.9V 500mW		0.0210	0.0138	0.0122	0.0110	0.0105
BZX55C4V3	DO35	4.3V 500mW		0.0210	0.0138	0.0122	0.0110	0.0105
BZX55C4V7	DO35	4.7V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C5V1	DO35	5.1V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C5V6	DO35	5.6V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C6V2	DO35	6.2V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C6V8	DO35	6.8V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C7V5	DO35	7.5V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C8V2	DO35	8.2V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C9V1	DO35	9.1V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C10	DO35	10V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C11	DO35	11V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C12	DO35	12V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C13	DO35	13V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C15	DO35	15V 500mW		0.0210	0.0138	0.0122	0.0110	0.0105
BZX55C16	DO35	16V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C18	DO35	18V 500mW		0.0190	0.0127	0.0112	0.0101	0.0096
BZX55C20	DO35	20V 500mW		0.0210	0.0138	0.0122	0.0110	0.0105
BZX55C24	DO35	24V 500mW		0.0210	0.0138	0.0122	0.0110	0.0105
BZX55C27	DO35	27V 500mW		0.0210	0.0138	0.0122	0.0110	0.0105
BZX55C30	DO35	30V 500mW		0.0210	0.0138	0.0122	0.0110	0.0105
BZX55C33	DO35	33V 500mW		0.0220	0.0146	0.0129	0.0116	0.0111
BZX55C36	DO35	36V 500mW		0.0220	0.0146	0.0129	0.0116	0.0111
BZX55C39	DO35	39V 500mW		0.0220	0.0146	0.0129	0.0116	0.0111
BZX55C43	DO35	43V 500mW		0.0230	0.0154	0.0137	0.0123	0.0117
BZX55C47	DO35	47V 500mW		0.0230	0.0154	0.0137	0.0123	0.0117
BZX55C51	DO35	51V 500mW		0.0230	0.0154	0.0137	0.0123	0.0117
BZX55C56	DO35	56V 500mW		0.0230	0.0154	0.0137	0.0123	0.0117
BZX55C62	DO35	62V 500mW		0.0230	0.0154	0.0137	0.0123	0.0117
BZX55C68	DO35	68V 500mW		0.0230	0.0154	0.0137	0.0123	0.0117
BZX55C75	DO35	75V 500mW		0.0230	0.0154	0.0137	0.0123	0.0117
Zener Diodes 500mW DO34 ROHM				1-9	10-99	100-999	1000-4999	5000+
ZD3.6V 0.5W ROHM	DO34	3.6V 500mW	100Ohm/5mA 10uA/1V	0.027	0.018	0.016	0.014	0.013
ZD3.9V 0.5W ROHM	DO34	3.9V 500mW	100Ohm/5mA 5uA/1V	0.027	0.018	0.016	0.014	0.013
ZD4.3V 0.5W ROHM	DO34	4.3V 500mW	100Ohm/5mA 5uA/1V	0.027	0.018	0.016	0.014	0.013
ZD4.7V 0.5W ROHM	DO34	4.7V 500mW	80 Ohm/5mA 5uA/1V	0.027	0.018	0.016	0.014	0.013
ZD5.1V 0.5W ROHM	DO34	5.1V 500mW	70 Ohm/5mA 5uA/1.5V	0.027	0.018	0.016	0.014	0.013
ZD5.6V 0.5W ROHM	DO34	5.6V 500mW	40 Ohm/5mA 5uA/2.5V	0.027	0.018	0.016	0.014	0.013
ZD6.2V 0.5W ROHM	DO34	6.2V 500mW	30 Ohm/5mA 5uA/3V	0.027	0.018	0.016	0.014	0.013
ZD6.8V 0.5W ROHM	DO34	6.8V 500mW	20 Ohm/5mA 2uA/3.5V	0.027	0.018	0.016	0.014	0.013
ZD7.5V 0.5W ROHM	DO34	7.5V 500mW	20 Ohm/5mA 0.5uA/4V	0.027	0.018	0.016	0.014	0.013
ZD8.2V 0.5W ROHM	DO34	8.2V 500mW	20 Ohm/5mA 0.5uA/5V	0.027	0.018	0.016	0.014	0.013
ZD9.1V 0.5W ROHM	DO34	9.1V 500mW	20 Ohm/5mA 0.5uA/6V	0.027	0.018	0.016	0.014	0.013
ZD10V 0.5W ROHM	DO34	10V 500mW	20 Ohm/5mA 0.2uA/7V	0.027	0.018	0.016	0.014	0.013
ZD12V 0.5W ROHM	DO34	12V 500mW	25 Ohm/5mA 0.2uA/9V	0.027	0.018	0.016	0.014	0.013
ZD15V 0.5W ROHM	DO34	15V 500mW	25 Ohm/5mA 0.2uA/11V	0.027	0.018	0.016	0.014	0.013
ZD18V 0.5W ROHM	DO34	18V 500mW	30 Ohm/5mA 0.2uA/13V	0.027	0.018	0.016	0.014	0.013
ZD24V 0.5W ROHM	DO34	24V 500mW	35 Ohm/5mA 0.2uA/19V	0.027	0.018	0.016	0.014	0.013
ZD33V 0.5W ROHM	DO34	33V 500mW	65 Ohm/5mA 0.2uA/25V	0.027	0.018	0.016	0.014	0.013
ZD39V 0.5W ROHM	DO34	39V 500mW	85 Ohm/5mA 0.2uA/30V	0.027	0.018	0.016	0.014	0.013
Zener Diodes 1.3W MOTOROLA/PHILIPS/VISHAY				1-9	10-99	100-999	1000+	
BZX85C2V7 MBR	DO41	2.7V 1.3W 2%		0.055	0.044	0.034	0.031	
1N4728/BZX85C3V3 MBR	DO41	3.3V 1.3W 5%		0.055	0.044	0.034	0.031	
1N4729/BZX85C3V6 MBR	DO41	3.6V 1.3W 5%		0.055	0.044	0.034	0.031	
1N4730/BZX85C3V9 MBR	DO41	3.9V 1.3W 5%		0.055	0.044	0.034	0.031	
1N4731/BZX85C4V3 MBR	DO41	4.3V 1.3W 5%		0.055	0.044	0.034	0.031	
1N4732/BZX85C4V7 MBR	DO41	4.7V 1.3W 5%		0.055	0.044	0.034	0.031	
1N4733/BZX85C5V1 MBR	DO41	5.1V 1.3W 5%		0.055	0.044	0.034	0.031	
1N4734/BZX85C5V6 MBR	DO41	5.6V 1.3W 5%		0.055	0.044	0.034	0.031	
1N4735/BZX85C6V2 MBR	DO41	6.2V 1.3W 5%		0.055	0.044	0.034	0.031	
1N4736/BZX85C6V8 MBR	DO41	6.8V 1.3W 5%		0.055	0.044	0.034	0.031	
1N4737/BZX85C7V5 MBR	DO41	7.5V 1.3W 5%		0.055	0.044	0.034	0.031	
1N4738/BZX85C8V2 MBR	DO41	8.2V 1.3W 5%		0.055	0.044	0.034	0.031	
1N4739/BZX85C9V1 MBR	DO41	9.1V 1.3W 5%		0.055	0.044	0.034	0.031	

Zener Diodes 1.3W MOTOROLA/PHILIPS/VISHAY			1-9	10-99	100-999	1000+	
1N4740/BZX85C10 MBR	DO41	10V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4741/BZX85C11 MBR	DO41	11V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4742/BZX85C12 MBR	DO41	12V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4743/BZX85C13 MBR	DO41	13V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4744/BZX85C15 MBR	DO41	15V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4745/BZX85C16 MBR	DO41	16V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4746/BZX85C18 MBR	DO41	18V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4747/BZX85C20 MBR	DO41	20V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4748/BZX85C22 MBR	DO41	22V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4749/BZX85C24 MBR	DO41	24V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4750/BZX85C27 MBR	DO41	27V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4751/BZX85C30 MBR	DO41	30V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4752/BZX85C33 MBR	DO41	33V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4753/BZX85C36 MBR	DO41	36V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4754/BZX85C39 MBR	DO41	39V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4755/BZX85C43 MBR	DO41	43V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4756/BZX85C47 MBR	DO41	47V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4757/BZX85C51 MBR	DO41	51V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4758/BZX85C56 MBR	DO41	56V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4759/BZX85C62 MBR	DO41	62V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4760/BZX85C68 MBR	DO41	68V 1.3W 5%	0.055	0.044	0.034	0.031	
1N4761/BZX85C75 MBR	DO41	75V 1.3W 5%	0.055	0.044	0.034	0.031	
Zener Diodes 1.0W			1-9	10-99	100-999	1000+	
1N4728	DO41	3.3V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4729	DO41	3.6V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4730	DO41	3.9V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4731	DO41	4.3V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4732	DO41	4.7V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4733	DO41	5.1V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4734	DO41	5.6V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4735	DO41	6.2V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4736	DO41	6.8V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4737	DO41	7.5V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4738	DO41	8.2V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4739	DO41	9.1V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4740	DO41	10V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4741	DO41	11V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4742	DO41	12V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4743	DO41	13V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4744	DO41	15V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4745	DO41	16V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4746	DO41	18V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4747	DO41	20V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4748	DO41	22V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4749	DO41	24V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4750	DO41	27V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4751	DO41	30V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4752	DO41	33V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4753	DO41	36V 1.0W 10%	0.0386	0.0311	0.0236	0.0214	
1N4754	DO41	39V 1.0W 10%	0.0408	0.0329	0.0249	0.0227	
1N4755	DO41	43V 1.0W 10%	0.0408	0.0329	0.0249	0.0227	
1N4756	DO41	47V 1.0W 10%	0.0408	0.0329	0.0249	0.0227	
1N4757	DO41	51V 1.0W 10%	0.0408	0.0329	0.0249	0.0227	
1N4758	DO41	56V 1.0W 10%	0.0408	0.0329	0.0249	0.0227	
1N4759	DO41	62V 1.0W 10%	0.0408	0.0329	0.0249	0.0227	
1N4760	DO41	68V 1.0W 10%	0.0408	0.0329	0.0249	0.0227	
1N4761	DO41	75V 1.0W 10%	0.0408	0.0329	0.0249	0.0227	
1N4762	DO41	82V 1.0W 10%	0.0408	0.0329	0.0249	0.0227	
1N4764	DO41	100V 1.0W 10%	0.0432	0.0348	0.0264	0.0240	
Zener Diodes 500mW MINI-MELF (SOD80C) PHILIPS			1-9	10-99	100-499	500-2499	2500+
BZV55C2V4	SOD80C	500 mW 5% 2.4V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C2V7	SOD80C	500 mW 5% 2.7V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C3V0	SOD80C	500 mW 5% 3V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C3V3	SOD80C	500 mW 5% 3.3V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C3V6	SOD80C	500 mW 5% 3.6V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C3V9	SOD80C	500 mW 5% 3.9V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C4V3	SOD80C	500 mW 5% 4.3V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C4V7	SOD80C	500 mW 5% 4.7V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C5V1	SOD80C	500 mW 5% 5.1V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C5V6	SOD80C	500 mW 5% 5.6V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C6V2	SOD80C	500 mW 5% 6.2V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C6V8	SOD80C	500 mW 5% 6.8V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C7V5	SOD80C	500 mW 5% 7.5V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C8V2	SOD80C	500 mW 5% 8.2V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C9V1	SOD80C	500 mW 5% 9.1V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C10	SOD80C	500 mW 5% 10V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C11	SOD80C	500 mW 5% 11V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C12	SOD80C	500 mW 5% 12V minimelf	0.030	0.021	0.018	0.017	0.0148

Zener Diodes 500mW MINI-MELF (SOD80C) PHILIPS			1-9	10-99	100-499	500-2499	2500+
BZV55C13	SOD80C	500 mW 5% 13V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C15	SOD80C	500 mW 5% 15V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C18	SOD80C	500 mW 5% 18V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C20	SOD80C	500 mW 5% 20V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C24	SOD80C	500 mW 5% 24V minimelf	0.030	0.021	0.018	0.017	0.0148
BZV55C27	SOD80C	500 mW 5% 27V minimelf	0.031	0.021	0.019	0.018	0.0153
BZV55C30	SOD80C	500 mW 5% 30V minimelf	0.031	0.021	0.019	0.018	0.0153
BZV55C33	SOD80C	500 mW 5% 33V minimelf	0.031	0.021	0.019	0.018	0.0153
BZV55C36	SOD80C	500 mW 5% 36V minimelf	0.031	0.021	0.019	0.018	0.0153
BZV55C39	SOD80C	500 mW 5% 39V minimelf	0.031	0.021	0.019	0.018	0.0153
BZV55C47	SOD80C	500 mW 5% 47V minimelf	0.031	0.021	0.019	0.018	0.0153
BZV55C75	SOD80C	500 mW 5% 75V minimelf	0.031	0.021	0.019	0.018	0.0153
Zener Diodes 500mW MINI-MELF (SOD80C) CDIL			1-9	10-99	100-499	500-2499	2500+
BZV55C4V7 DIV	SOD80C	500 mW 5% 4V7 minimelf	0.025	0.017	0.015	0.014	0.0123
BZV55C5V1 DIV	SOD80C	500 mW 5% 5V1 minimelf	0.025	0.017	0.015	0.014	0.0123
BZV55C5V6 DIV	SOD80C	500 mW 5% 5V6 minimelf	0.025	0.017	0.015	0.014	0.0123
BZV55C6V2 DIV	SOD80C	500 mW 5% 6V2 minimelf	0.025	0.017	0.015	0.014	0.0123
BZV55C12 DIV	SOD80C	500 mW 5% 12V minimelf	0.025	0.017	0.015	0.014	0.0123
BZV55C15 DIV	SOD80C	500 mW 5% 15V minimelf	0.025	0.017	0.015	0.014	0.0123
BZV55C24 DIV	SOD80C	500 mW 5% 24V minimelf	0.025	0.017	0.015	0.014	0.0123
Zener Diodes 250mW SMD SOT-23			1-9	10-99	100-499	500-2999	3000+
BZX84C2V7	SOT23	2.7V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C3V3	SOT23	3.3V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C3V6	SOT23	3.6V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C3V9	SOT23	3.9V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C4V3	SOT23	4.3V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C4V7	SOT23	4.7V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C5V1	SOT23	5.1V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C5V6	SOT23	5.6V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C6V2	SOT23	6.2V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C6V8	SOT23	6.8V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C7V5	SOT23	7.5V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C8V2	SOT23	8.2V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C9V1	SOT23	9.1V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C10	SOT23	10V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C12	SOT23	12V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C15	SOT23	15V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C18	SOT23	18V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
BZX84C24	SOT23	24V 5% 250mW	0.032	0.022	0.019	0.018	0.0158
Zener Diodes 200mW SMD SOD323 ROHM			1-9	10-99	100-499	500-2999	3000+
ZD3.9V 0.2W ROHM SMD	SOD323	3.9V 200mW	0.0520	0.0363	0.0316	0.0298	0.0259
ZD4.7V 0.2W ROHM SMD	SOD323	4.7V 200mW	0.0520	0.0363	0.0316	0.0298	0.0259
ZD5.1V 0.2W ROHM SMD	SOD323	5.1V 200mW	0.0510	0.0355	0.0310	0.0292	0.0254
ZD5.6V 0.2W ROHM SMD	SOD323	5.6V 200mW	0.0500	0.0353	0.0307	0.0290	0.0252
ZD6.2V 0.2W ROHM SMD	SOD323	6.2V 200mW	0.0500	0.0353	0.0307	0.0290	0.0252
ZD6.8V 0.2W ROHM SMD	SOD323	6.8V 200mW	0.0520	0.0363	0.0316	0.0298	0.0259
ZD8.2V 0.2W ROHM SMD	SOD323	8.2V 200mW	0.0520	0.0363	0.0316	0.0298	0.0259
ZD12V 0.2W ROHM SMD	SOD323	12V 200mW	0.0520	0.0363	0.0316	0.0298	0.0259
ZD15V 0.2W ROHM SMD	SOD323	15V 200mW	0.0520	0.0363	0.0316	0.0298	0.0259
ZD24V 0.2W ROHM SMD	SOD323	24V 200mW	0.0520	0.0363	0.0316	0.0298	0.0259
LCD Matrix Modules			1-4	5-24	25-99	100+	
AC-082AYA		8X2 LCD STN 58.0x32.0x10.0mm, LAT+CYR FONT	4.464	4.098	3.878	3.659	
AC-082AYILY-H		8X2 LCD STN 58.0x32.0x13.8mm B/L LAT+CYR FONT	4.855	4.457	4.218	3.979	
AC-161AYA		16X1 LCD STN 80.0x36.0x10.0mm LAT+CYR FONT	5.622	5.161	4.885	4.608	
AC-161BYA-H		16X1 LCD STN 122.0x33.0x10.0mm LAT+CYR FONT	5.282	4.849	4.589	4.329	
AC-161BYILY-H		16X1 LCD STN 122.0x33.0x15.5mm B/L LAT+CYR FONT	6.644	6.100	5.773	5.446	
AC-162BYA-H		16X2 LCD STN 80.0x36.0x10.0mm LAT+CYR FONT	5.557	5.102	4.829	4.555	
AC-162BYILY-H		16X2 LCD STN 80.0x36.0x14.5mm, B/L LAT+CYR FONT	6.644	6.100	5.773	5.446	
AC-162EYILY-H		16X2 LCD STN 122.0x44.0x14.5mm, B/L LAT+CYR FONT	9.462	8.687	8.221	7.756	
AC-162EYA		16X2 LCD STN 122.0x44.0x10.0mm LAT+CYR FONT	9.778	8.976	8.495	8.015	
AC-162ESUQW-56H		16X2 LCD STN Blue 118x33.5x14.5mm, white B/L LAT+CYR FONT	16.983	15.591	14.756	13.921	
AC-164AYILY-H		16X4 LCD STN 87.0x60.0x14.0mm, B/L LAT+CYR FONT	11.965	10.985	10.396	9.808	
AC-202AYA		20X2 LCD STN 116.0x37.0x10.0mm LAT+CYR FONT	9.977	9.159	8.668	8.178	
AC-202AYILY-H		20X2 LCD STN 116.0x37.0x14.5mm, B/L LAT+CYR FONT	10.242	9.402	8.899	8.395	
AC-202BYILY-H		20X2 LCD STN 180.0x40.0x15.0mm, B/L LAT+CYR FONT	14.934	13.710	12.975	12.241	
AC-202BYA-H		20X2 LCD STN 180.0x40.0x10.0mm LAT+CYR FONT	12.618	11.584	10.963	10.343	
AC-204AYILY-H		20X4 LCD STN 98.0x60.0x14.5mm, B/L LAT+CYR FONT	13.763	12.635	11.958	11.281	
AC-204AYA		20X4 LCD STN 98.0x60.0x10.5mm LAT+CYR FONT	9.977	9.159	8.668	8.178	
AC-204BYILY-H		20X4 LCD STN 146.0x62.0x14.5mm B/L LAT+CYR FONT	25.712	23.605	22.340	21.076	
AC-204AYILY-H		40X4 LCD STN 190.0x42.7x14.5mm B/L LAT+CYR FONT	26.645	24.461	23.150	21.840	
LCD Negative Character Modules			1-4	5-24	25-99	100+	
OD-AMC1602AR-B-B6WTDW		16x2 LCD STN Blue Negative 80x36x14mm white B/L LAT+CYR	8.689	7.977	7.549	7.122	

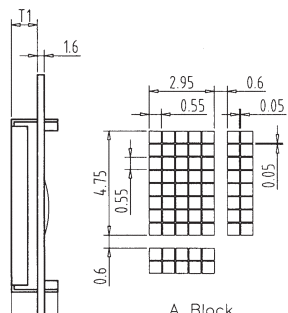
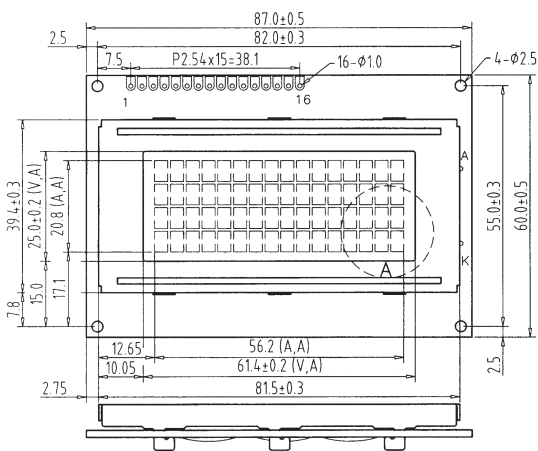
AC-XX LCD Matrix Modules - Font Table

		Higher 4-bit (D4 to D7) of Character Code (Hexadecimal)																			
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F				
Lower 4-bit (D0 to D3) of Character Code (Hexadecimal)	0	CG RAM (1)			0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
	1	CG RAM (2)		!	1	A	0	a	9							Γ	9	u	.	U	9
	2	CG RAM (3)		"	2	B	R	b	r							ē	6	u	U	U	U
	3	CG RAM (4)		#	3	C	S	c	s							W	ē	W	"	a	U
	4	CG RAM (5)		\$	4	D	T	t	t							3	r	u	U	U	U
	5	CG RAM (6)		%	5	E	U	e	u							W	ē	a	U	U	U
	6	CG RAM (7)		&	6	F	V	f	v							W	ē	W	U	U	U
	7	CG RAM (8)		'	7	G	U	g	u							J	3	a	I	'	U
	8	CG RAM (1)		(8	H	X	h	x							W	ē	U	U	U	U
	9	CG RAM (2))	9	I	Y	i	y							U	U	U	U	U	U
	A	CG RAM (3)		*	:	J	Z	j	z							U	U	U	U	U	U
	B	CG RAM (4)		+	:	K	X	k	x							U	U	U	U	U	U
	C	CG RAM (5)		,	<	L	l	l	l							U	U	U	U	U	U
	D	CG RAM (6)		-	=	M	m	m	m							U	U	U	U	U	U
	E	CG RAM (7)		.	>	N	n	n	n							U	U	U	U	U	U
	F	CG RAM (8)		/	?	O	o	o	o							U	U	U	U	U	U

LCD Matrix Modules

AC-164A

FEATURE	ELECTRICAL CHARACTERISTICS															
	Item	Symbol	Condition	Typ. Value	Unit											
1. Construction: STN LCD panel, Bezel, Zebra and PCB.	LCD Driving Voltage	VDD-V0	25°C	5.0	V											
2. Optional: LED or EL back-light.	Supply Current	IDD	VDD=5.0V	1.2	mA											
3. Controller: KS0066U or Equivalent.	INTERFACE															
4. 5V or 3.3V single power input. Built-in DC/DC converter while using 3.3V power input.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
5. Normal / Extended temperature type.	VSS	VDD	V0	RS	R/W	E	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	A/EL1	K/EL2

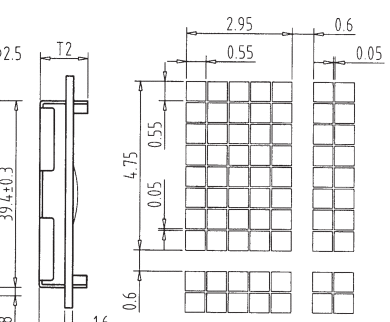
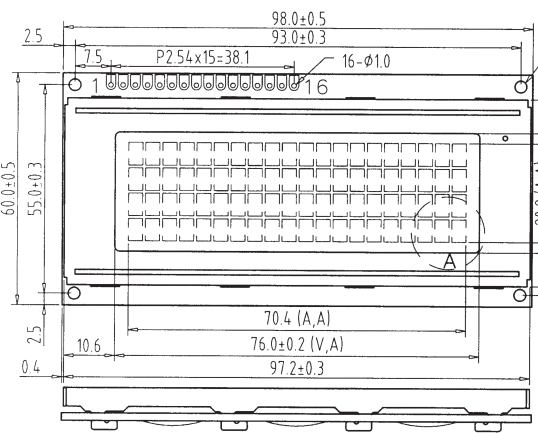


THICKNESS:

VERSION	T1	T2
EL&NO BACKLIGHT	5.9±0.3	11.0 Max
LED BACKLIGHT	8.9±0.3	14.0 Max

AC-204A

FEATURE	ELECTRICAL CHARACTERISTICS															
	Item	Sum.	Condition	Typ. Value	Unit											
1. Construction: STN LCD panel, Bezel, Zebra and PCB.	LCD Driving Voltage	VDD-V0	25°C	5.0	V											
2. Optional: LED or EL backlight.	Supply Current	IDD	VDD=5.0V	1.5	mA											
3. Controller: KS0066U or Equivalent.	INTERFACE															
4. 5V or 3.3V single power input. Built-in DC/DC converter while using 3.3V power input.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
5. Normal / Extended temperature type.	VSS	VDD	V0	RS	R/W	E	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	A/EL1	K/EL2



THICKNESS:

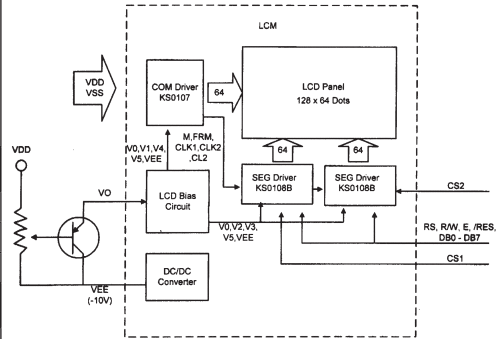
VERSION	T1	T2
EL&NO BACKLIGHT	5.4±0.3	11.0 Max
LED BACKLIGHT	9.4±0.3	14.0 Max

AG-12864A

FEATURE

1. Construction: STN/FSTN LCD, Bezel, Zebra, Heat Seal and PCB.
2. Optional: LED or EL back-light, white edge-light LED available.
3. Controller: KS0108B.
4. 5V single power input. Built-in DC/DC converter for LCD driving.
5. Normal / Extended temperature type.

BLOCK DIAGRAM & POWER SUPPLY

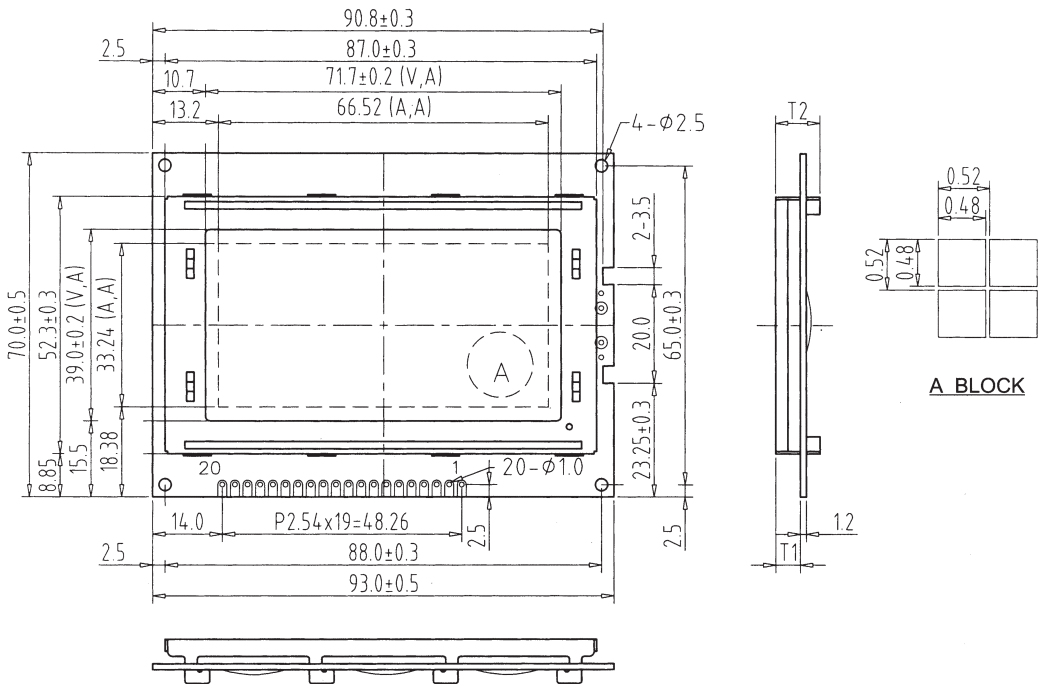


ELECTRICAL CHARACTERISTICS

Item	Sumbol	Condition	Typ. Value	Unit
LCD Driving Voltage	VDD-V0	25°C	12.2	V
Supply Current	IDD	VDD=5.0V	3.0	mA

INTERFACE

1	2	3	4	5	6	7	8	9	10
VSS	VDD	VO	RS	R/W	E	DB0	DB1	DB2	DB3
11	12	13	14	15	16	17	18	19	20
DB4	DB5	DB6	DB7	CS1	CS2	/RES	VEE	A/EL1	K/EL2



THICKNESS:

VERSION	T1	T2
EL&NO BACKLIGHT	5.0±0.3	9.5 Max
LED BACKLIGHT	9.8±0.3	14.5 Max

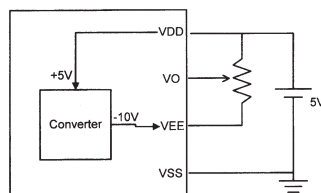
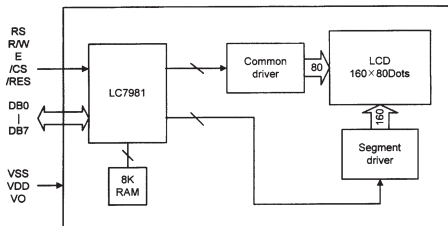
LCD Graphic Modules

AG-16080B

FEATURE

1. Construction: STN/FSTN LCD, Bezel, Zebra, Heat Seal and PCB.
2. Optional: LED or EL back-light.
3. Controller: LC7981.
4. 5V single power input. Built-in DC/DC converter for LCD driving.
5. Normal temperature type.

BLOCK DIAGRAM & POWER SUPPLY

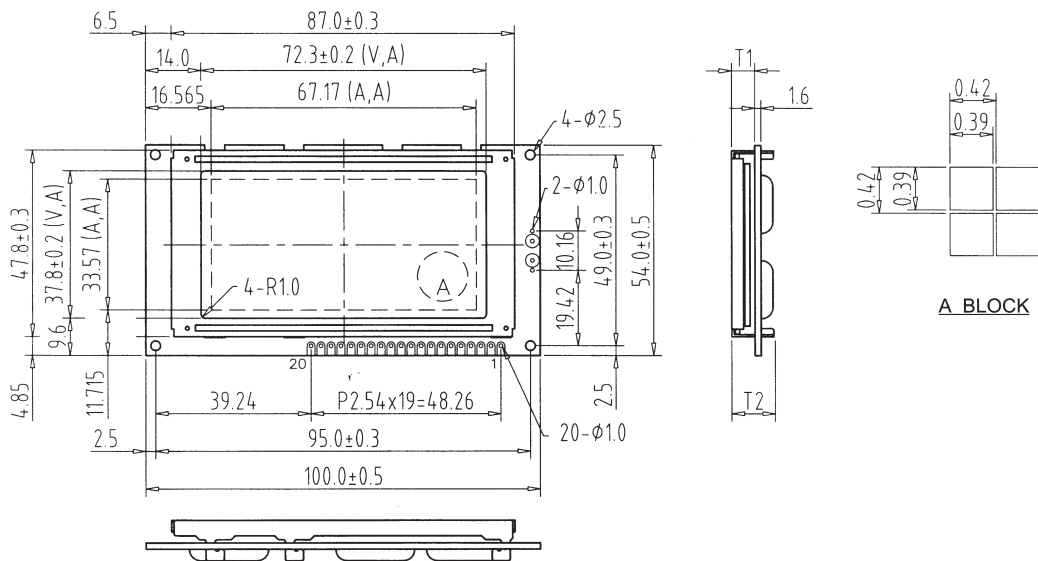


ELECTRICAL CHARACTERISTICS

Item	Sumbol	Condition	Typ. Value	Unit
LCD Driving Voltage	VDD-V0	25°C	12.6	V
Supply Current	IDD	VDD=5.0V	5.0	mA

INTERFACE

1	2	3	4	5	6	7	8	9	10
VSS	VDD	VO	RS	R/W	E	DB0	DB1	DB2	DB3
11	12	13	14	15	16	17	18	19	20
DB4	DB5	DB6	DB7	/CS	/RES	VEE	/DISPOFF	A/EL1	K/EL2



THICKNESS:

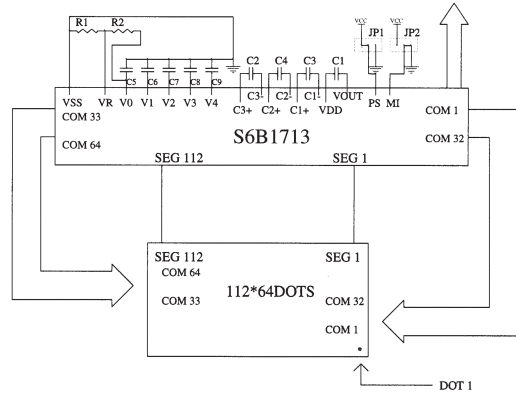
VERSION	T1	T2
EL&NO BACKLIGHT	5.9±0.3	11.3 Max
LED BACKLIGHT	10.0±0.3	15.3 Max

AF-11264C

FEATURE

1. Construction: FSTN LCD panel, COF and LED light-guide.
2. Driver: S6B1713.
4. 3.0V power input.
5. Extended temperature type.

BLOCK DIAGRAM & POWER SUPPLY

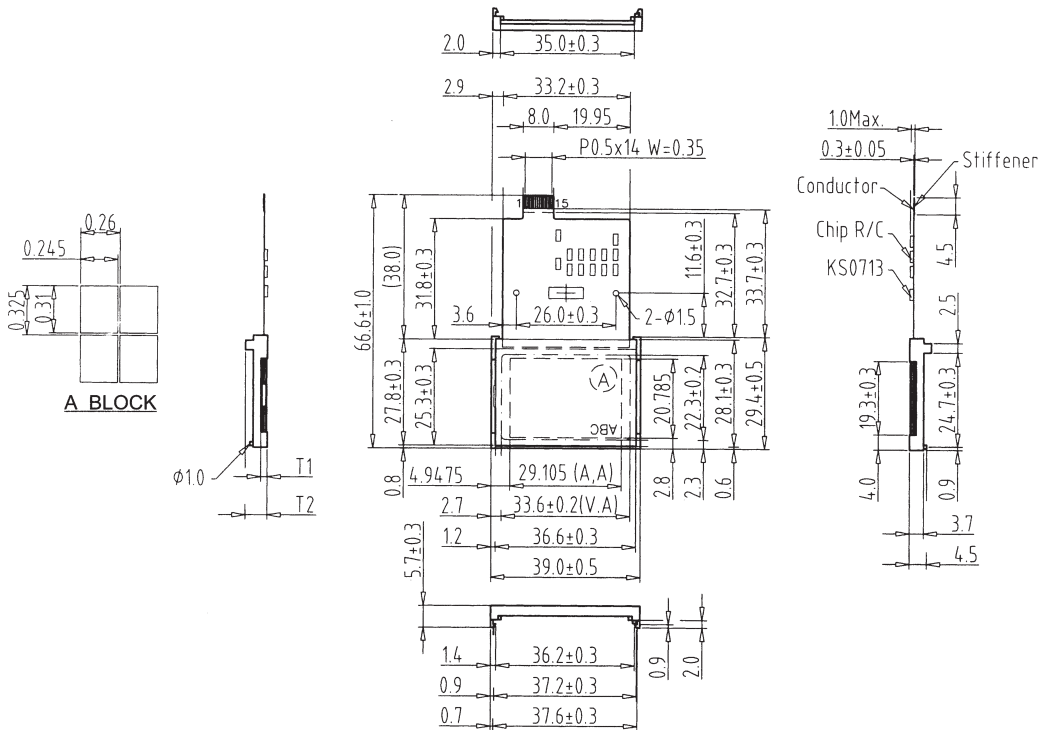


ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Typ. Value	Unit
LCD Driving Voltage	VDD-V0	25°C	8.8	V
Logic Supply Current	IDD	VDD=3.3V	0.2	mA

INTERFACE

1	2	3	4	5	6	7	8	9	10
/CS	/RES	A0	/WR	/RD	DO	D1	D2	D3	D4
11	12	13	14	15					
D5	D6	D7	VSS	VDD					



THICKNESS:

VERSION	T1	T2
EL&NO BACKLIGHT	1.6±0.3	x
LED BACKLIGHT	1.7	5.7±0.3

Connector:
CN1: Molex: 52746-1590

TFT LCD Graphic Modules

AM-480272ATMQW-00H * 480 x 272 dots color TFT

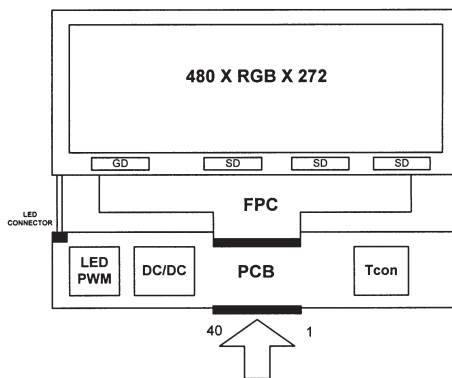
FEATURE:

1. Resolution 480x272 RGB;
2. Capable to visualize up to 16.7 million colors;
3. 16:9 diagonal configuration;
4. Brightness 200cd/m2, contrast 300:1;
5. Integrated control circuit and LED backlight;
6. Dimensions - 98.3x62.6x5.5mm (W)x(H)x(D);

ELECTRICAL CHARACTERISTICS:

Power supply voltage: 3.0 + 3.6 V
 Power consumption: 150 mA

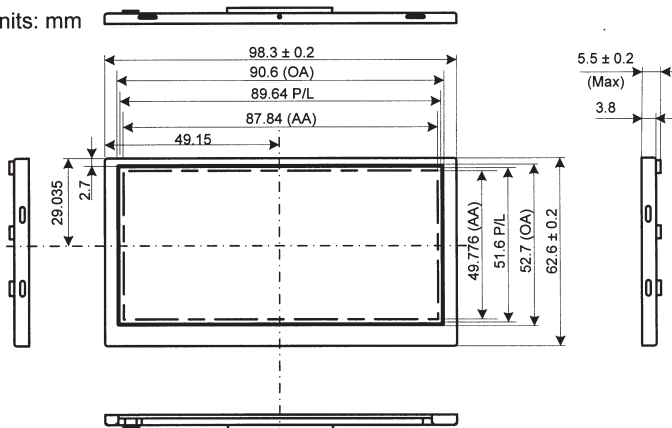
BLOCK DIAGRAM



Pin No	Name	Description
1	Vss	Ground
2	Vss	Ground
3	LED_C TRL	LED Control signal
4	VCC	Power Input
5	VCC	Power Input
6	VCC	Power Input
7	VCC	Power Input
8	NC	No Connection
9	DE	Data Enable Timing Signal
10	Vss	Ground
11	Vss	Ground
12	Vss	Ground
13	B5	Blue data (MSB)
14	B4	Blue data
15	B3	Blue data
16	Vss	Ground
17	B2	Blue data
18	B1	Blue data
19	B0	Blue data (LSB)
20	Vss	Ground
21	G5	Green data (MSB)
22	G4	Green data
23	G3	Green data
24	Vss	Ground
25	G2	Green data
26	G1	Green data
27	G0	Green data (LSB)
28	Vss	Ground
29	R5	Red data (MSB)
30	R4	Red data
31	R3	Red data
32	Vss	Ground
33	R2	Red data
34	R1	Red data
35	R0	Red data (LSB)
36	Vss	Ground
37	Vss	Ground
38	DCLK	Data Clock
39	Vss	Ground
40	Vss	Ground

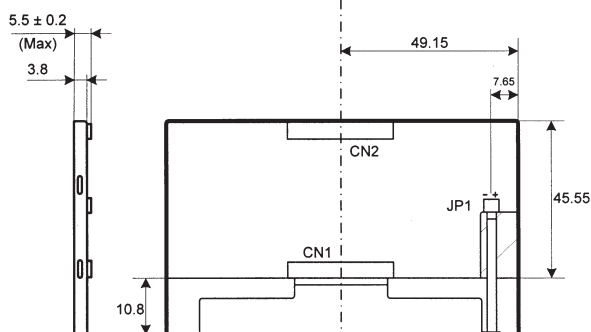
1. Front view

Units: mm



2. Back view

Units: mm



TFT LCD Graphic Modules

AM-240320DTMQW-01H * 240 x 320 dots color TFT

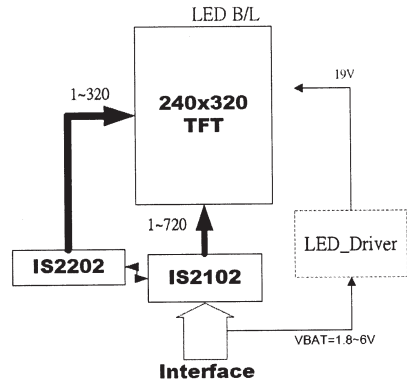
FEATURE:

- 1. 3.2" TFT display;
- 2. Resolution 240x320 RGB;
- 3. Capable to visualize up to 262K colors;
- 4. Viewing Direction 9 o'clock
- 5. Brightness 200cd/m², contrast 290:1;
- 6. Dimensions – 55.64x77.3x6.5 mm, (W)x(H)x(D).

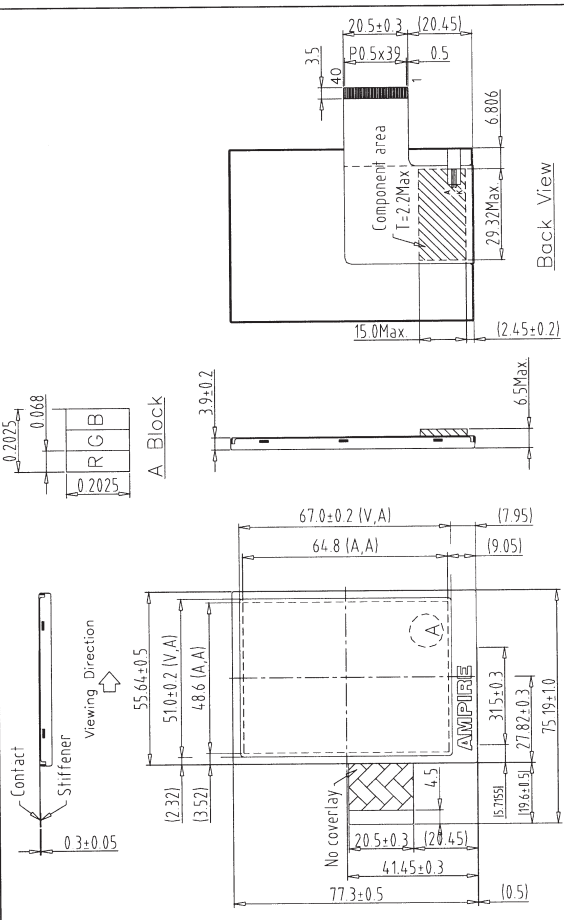
ELECTRICAL CHARACTERISTICS:

Power supply voltage: 2.5 + 3.3 V
 Power consumption: 186 mA

BLOCK DIAGRAM



Input terminal	
Pin Name	Description
1	VBAT LED Driver Input 1.8-6V
2	BL-EN BACKLIGHT ENABLE
3	NC No Connection
4	VCC I/O power supply for the system interface (System I/F)
5	VSS Ground pins
6	ADJ A pin for external variable resistor to adjust VCOM1 center voltage
7	Dotclk Dot clock for the RGB interface circuit Connect to VCC1A for VSS when not in use
8	Hsync Horizontal synchronization signal Connect to VCC1A or VSS when not in use
9	Vsync Vertical synchronization signal Connect to VCC1A or VSS when not in use
10	RGB/CPU When IF_SHARE is "H", data pins (D17-D0) "L": Used for the System interface circuit "H": Used for the RGB interface circuit
11	/RD(E) i80 series: Read enable signal M68 series: "L" Read/Write disable "H" Read/Write enable
12	/WR(R/W) i80 MPU series: Write enable signal M68 series "L" Write (same for parallel "H" Read and serial interfaces)
13	RS Selects data or command when transferring parallel/serial data. "L": Command, "H": Display data
14	/RESET Switching to "L" initializes internally. Must be reset after the power is supplied.
15	/CS Chip selection pin. The "L" level enables inputting commands and reading/writing data.
16-33	D0-D17 18-bit bidirectional bus Connect to VSS when the serial interface is selected.
34	IF_SHARE "L": Uses data pins(D17-0) only for the system interface circuit. "H": Uses data pins(D17-0) both for the system interface circuit and For RGB interface circuit.
35	BWS2 "L": 18 bits, "H": 16 bits
36-37	BWS1/BWS0 System interface selection
38	DTX2 System interface selection
39	DTX1 System interface selection
40	C86 "L": i80 series MPU "H": M68 series MPU



TFT LCD Graphic Modules

AM-640480ETMCW-00H * 640 x 480 dots color TFT

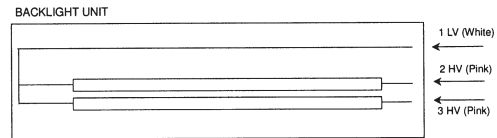
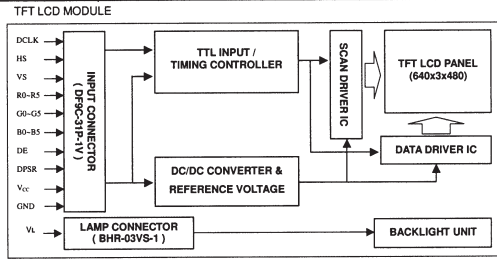
FEATURE:

1. 10.4" active TFT matrix;
2. Resolution 640x480 RGB;
3. Capable to visualize up to 262K colors;
4. 4:3 diagonal configuration,
5. Brightness 380cd/m², contrast 750:1;
6. Dimensions-225.5x176.3x9.5mm (W)x(H)x(D).

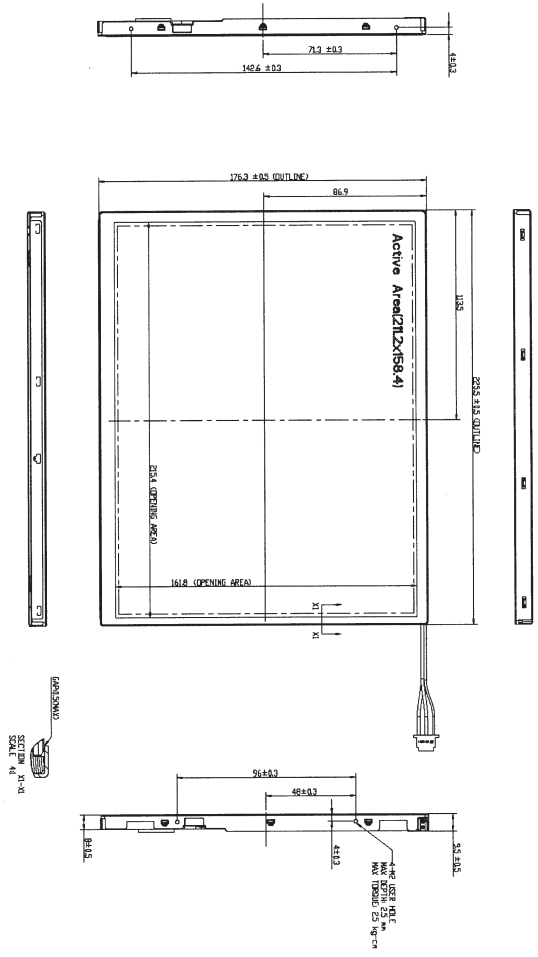
ELECTRICAL CHARACTERISTICS:

Power supply voltage: 3.0 ± 3.6 V
Power consumption: 563 mA

BLOCK DIAGRAM

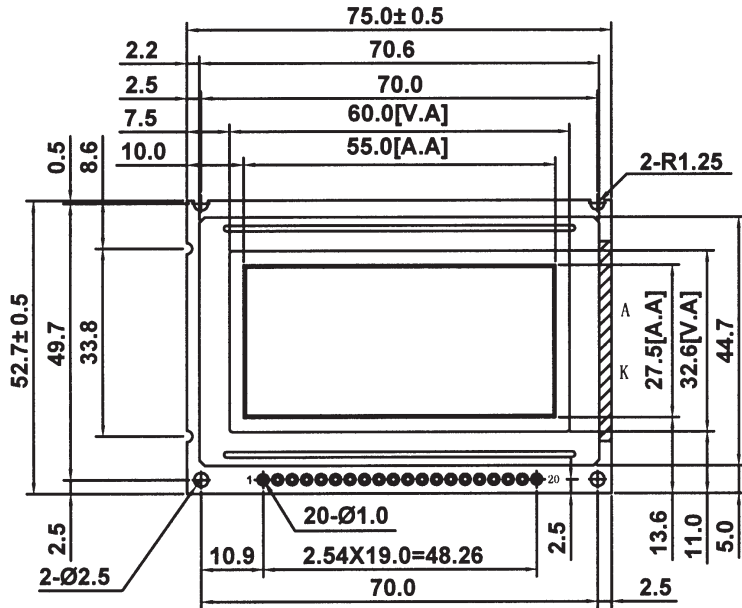


Input terminal		
Pin No	Name	Description
1	GND	Ground
2	DCLK	Dot clock
3	HS	Horizontal synchronous
4	VS	Vertical synchronous
5	GND	Ground
6	R0	Red data (LSB)
7	R1	Red data
8	R2	Red data
9	R3	Red data
10	R4	Red data
11	R5	Red data (MSB)
12	GND	Ground
13	G0	Green data (LSB)
14	G1	Green data
15	G2	Green data
16	G3	Green data
17	G4	Green data
18	G5	Green data (MSB)
19	GND	Ground
20	B0	Blue data (LSB)
21	B1	Blue data
22	B2	Blue data
23	B3	Blue data
24	B4	Blue data
25	B5	Blue data (MSB)
26	GND	Ground
27	DE	Data enable signal
28	Vcc	Power supply
29	Vcc	Power supply
30	N.C.	Reserved, please keep it floating
31	DPSR	Selection of scan direction
LCD backlight unit		
1	GND	Ground, White
2	HV1	High voltage, Pink
3	HV2	High voltage, Pink

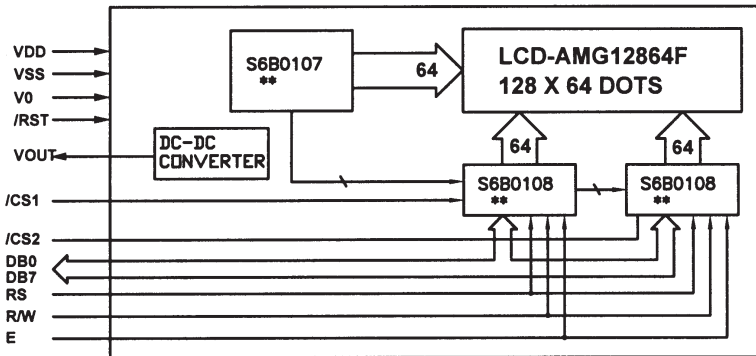
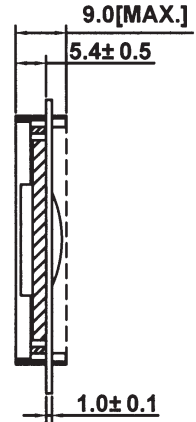


LCD Graphic Modules

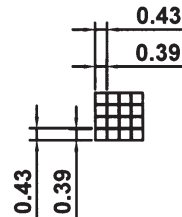
OD-AMG12864F



WITH WHITE B.L.



** OR EQUIVALENT



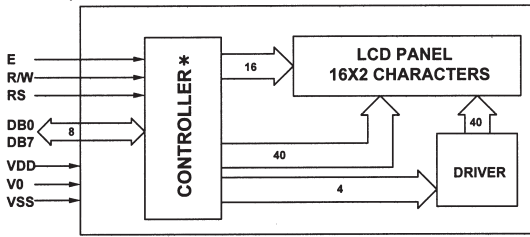
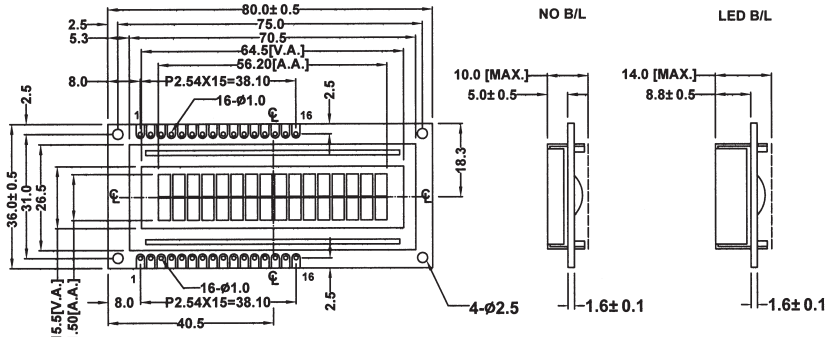
PIN CONNECTIONS		
PIN	SYMBOL	DESCRIPTION
1	VDD	Power Supply :+5V
2	VSS	Power Supply :0V
3	V0	Supply voltage for LCD
4-11	DB0-DB7	Data Bus
12	/CS1	Chip1 Select Signal
13	/CS2	Chip2 Select Signal
14	/RST	Reset Signal
15	R/W	Read/Write
16	RS	Register Select
17	E	Enable
18	VOUT	Negative Voltage
19	A	Anode for backlight
20	K	Cathode for backlight

ELECTRICAL CHARACTERISTICS(Ta=25° C)						
ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage(logic)	Vdd	-	4.5	5.0	5.5	V
Supply Current(logic)	Idd	Vdd=5.0	4.0	-	4.5	mA
Driving Voltage(LCD)	Vlcd	-	8.2	8.4	8.7	V
Driving Current(LCD)	Ilcd	-	-	-	-	mA

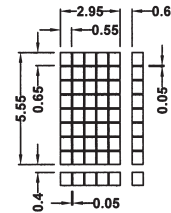
BACKLIGHT CHARACTERISTICS (Ta=25° C)						
PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage	Vf	If=45mA	2.8	3.0	3.2	V
LED Forward Current	If	-	-	45	-	mA

LCD Matrix Modules

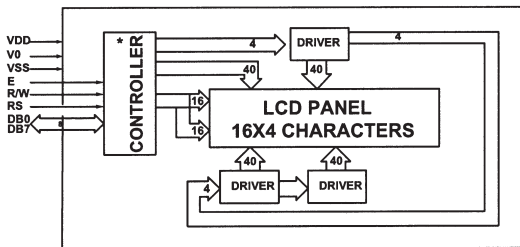
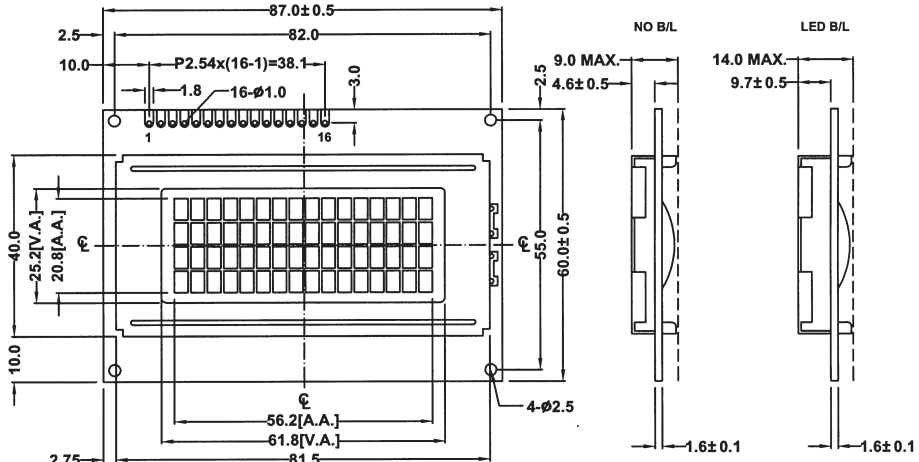
OD-AMC1602A



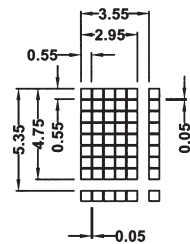
* S6A0069 OR EQUIVALENT



OD-AMC1604A



* S6A0069 OR EQUIVALENT



PIN CONNECTIONS:

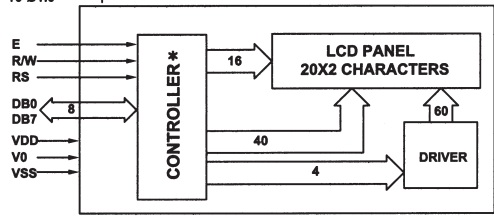
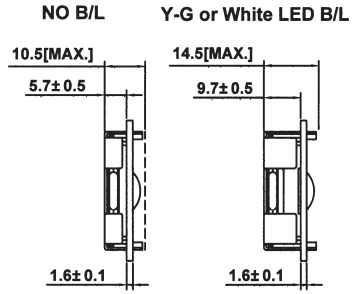
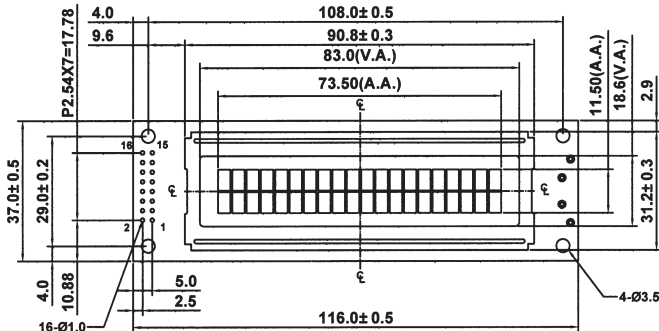
Pin 1 - VSS, Power Supply: 0V;
 Pin 2 - VDD, Power Supply: +5V;
 Pin 3 - V0, Power Supply for LCD;

Pin 4 - RS, Register Select;
 Pin 5 - R/W, Read/Write;
 Pin 6 - E, Enable;

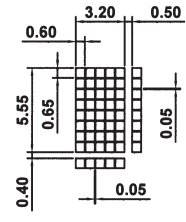
Pin 7 to 14, DB0-DB7 - Data Bus;
 Pin 15 - A, Anode for backlight;
 Pin 16 - K, Cathode for backlight.

LCD Matrix Modules

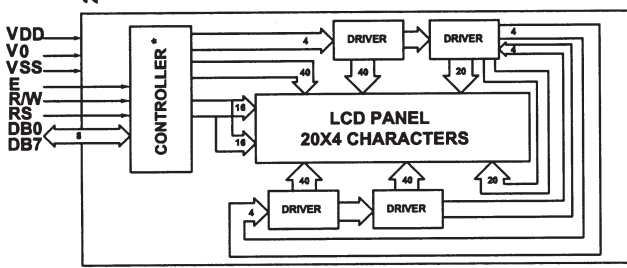
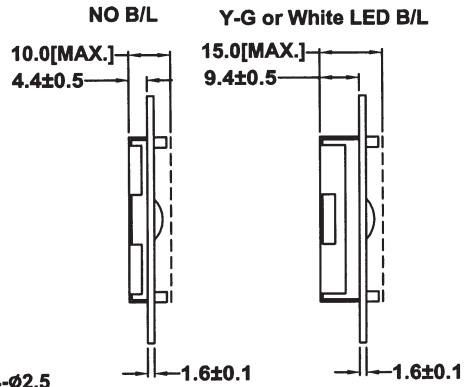
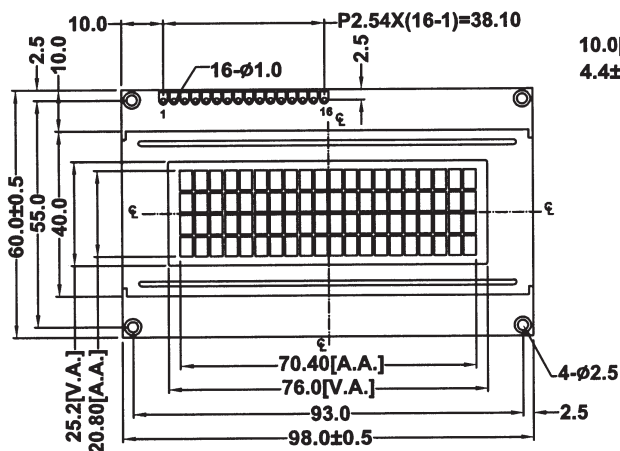
OD-AMC2002C



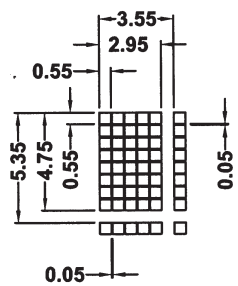
* S6A0069 OR EQUIVALENT



OD-AMC2004A

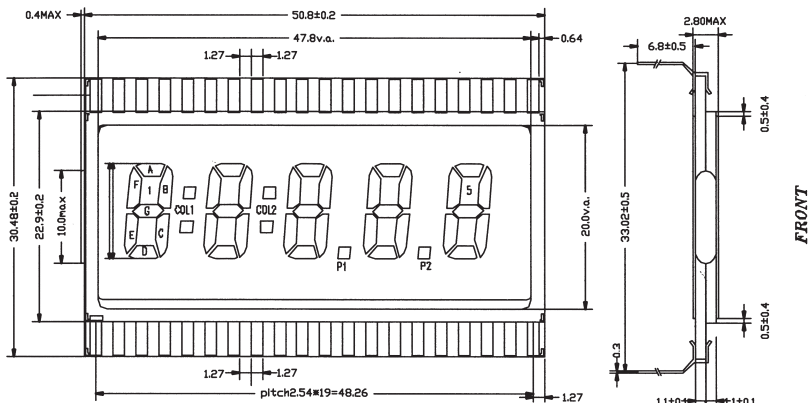


* S6A0069 OR EQUIVALENT

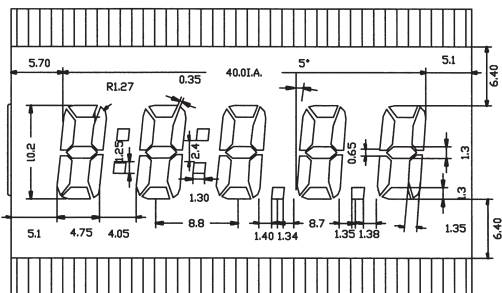


PIN CONNECTIONS: Pin 1 - VSS, Power Supply: 0V; Pin 2 - VDD, Power Supply: +5V; Pin 3 - V0, Power Supply for LCD; Pin 4 - RS, Register Select; Pin 5 - R/W, Read/Write; Pin 6 - E, Enable; Pin 7 to 14, DB0-DB7 - Data Bus; Pin 15 - A, Anode for backlight; Pin 16 - K, Cathode for backlight.

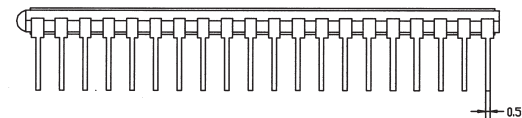
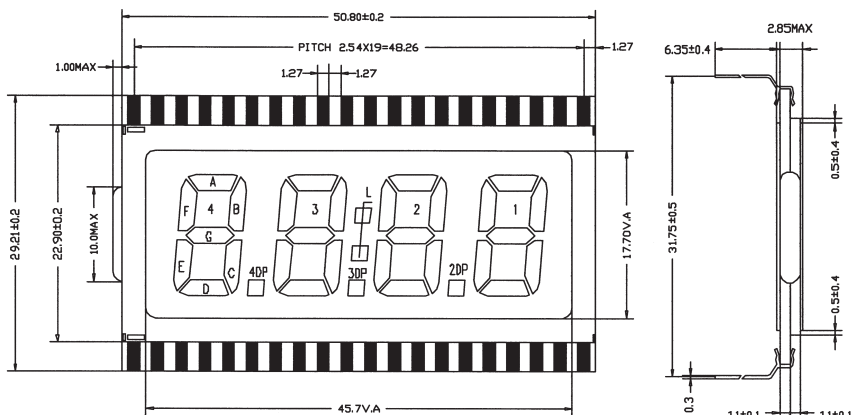
LCD Segment Panels



PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
COM	COM1	1G	1E	1D	1C	2G	2E	2D	2C	3G	3C	3P1	4E	4C	4P2	5E	5D	5C	5B	
PIN	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
COM	5A	5F	5G	4A	4F	4G	3B	3A	3F	3G	COM2	2B	2A	2F	2G	COM1	1B	1A	1F	



OD-502

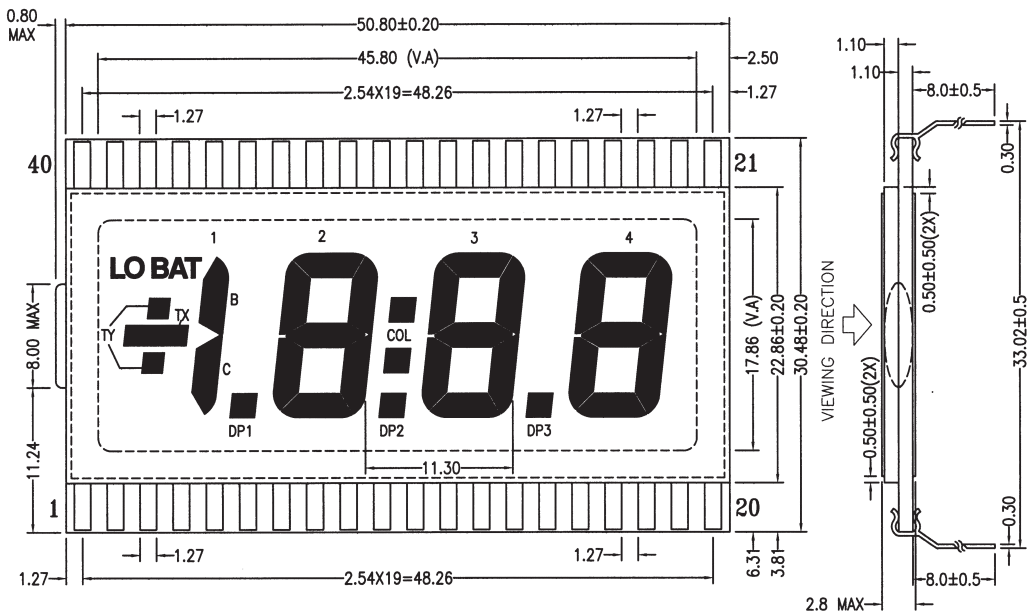


PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
COM	COM	/	/	4E	4D	4C	4B	3E	3D	3C	3B	2E	2D	2C	2B	1E	1D	1C	1B	
PIN	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
COM	1A	1F	1G	2B	2A	2F	2G	L	3B	3A	3F	3G	/	4B	4A	4F	4G	/	COM	

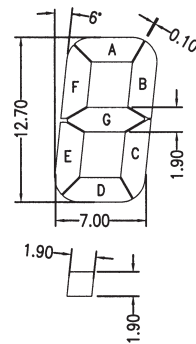
OD-407

LCD Segment Panels

OD-358



PIN	SEG	PIN	SEG	PIN	SEG	PIN	SEG
1	BP	11	2C	21	4A	31	2F
2	TX	12	DP2	22	4F	32	2G
3	1BC	13	3E	23	4G	33	
4		14	3D	24	3B	34	
5		15	3C	25	3A	35	
6		16	DP3	26	3F	36	
7		17	4E	27	3G	37	
8	DP1	18	4D	28	COL	38	LO BAT
9	2E	19	4C	29	2B	39	TY
10	2D	20	4B	30	2A	40	BP



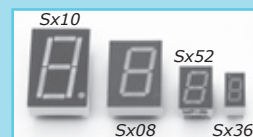
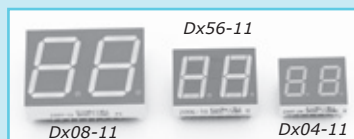
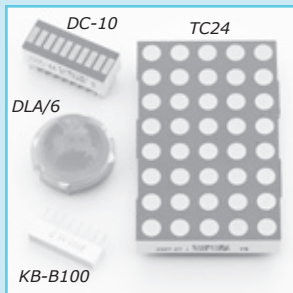
NOTES:

1. DISPLAY TYPE: TN
2. VIEWING DIRECTION: 6:00
3. POLARIZER MODE: POSITIVE/REFLECTIVE
4. DRIVER METHOD: STATIC
5. OPERATING VOLTAGE: 5.0V
6. OPERATING TEMP: 0°C~50°C
7. STORAGE TEMP: -20°C~70°C
8. CONNECTOR: PIN

LCD Negative Character Modules		1-4	5-24	25-99	100+
OD-AMC1604AR-B-B6NTD	16x4 LCD STN Blue Negative 87x60x14mm white B/L LAT+CYR	17.497	16.063	15.203	14.342
OD-AMC2002CR-B-B6WTDW	20x2 LCD STN Blue Negative 116x37x14.5mm white B/L LAT+CYR	12.642	11.605	10.984	10.362
OD-AMC2004AR-B-B6WTDW	20x4 LCD STN Blue Negative 98x60x15.5mm white B/L LAT+CYR	16.799	15.422	14.595	13.769
LCD Segment Panels		1-4	5-24	25-99	100+
OD-358	3 1/2 digit 12.70mm height LCD 45.8x17.86mm view area	2.001	1.837	1.738	1.640
OD-407	4 digit 12.70mm height LCD 45.7x17.7mm view area	1.966	1.805	1.709	1.612
OD-502	5 digit 10.70mm height LCD 45.8x20.0mm view area	2.001	1.837	1.738	1.640
LCD Graphic Modules		1-4	5-24	25-99	100+
AG-12232 AYILY-80	122x32 pix, 84x44x15.5mm STN 5V B/L GRAPH	13.523	12.415	11.750	11.085
AG-12864 AYILY-60	128x64 pix, 93x70x9.5mm STN 5V B/L GRAPH	21.705	19.926	18.858	17.791
AG-16080BYILY-30	160x80 pix, 100x54x15.3mm STN 5V B/L GRAPH	27.624	25.360	24.001	22.643
AF-11264CFI-30H	112x64 pix, 39x66, 6x5.7mm FSTN 3V COF, GRAPH	11.950	10.970	10.382	9.795
		1-4	5-24	25+	
AG-240128 BFICW30	240x128 pix, 170x103x14mm FSTN CCFL B/L GRAPH	60.629	56.906	53.183	
AG-240128 GFICW30	240x128 pix, 144x104x15mm FSTN CCFL B/L GRAPH	62.983	59.116	55.249	
AG-320240 A4FICW54	320x240 pix, 167x109x11mm FSTN CCFL B/L GRAPH	66.376	62.300	58.224	
AG-320240 A4FICW-T54	320x240 pix, 167x109x12,5mm FSTN CCFL B/L TSCR	84.076	78.914	73.751	
AG-320240 A4FICW-TG1	320x240 pix, 167x109x12,5mm FSTN CCFL B/L TSCR	84.076	78.914	73.751	
LCD Negative Graphic Modules		1+			
OD-AMG-12864FRB-B6WT	128x64 pix, 75x53x8mm, STN Blue 5V, white LED B/L	30.328			
LCD TFT Color Graphic Modules		1-4	5-24	25+	
AM-240320DTMQW-01H	240x320 pix, 3.2" 52.74x74.40x4.5mm TFT LED B/L	72.276	67.838	63.400	
AM-480272ATMQW-00H	480x272 pix, 4.0", 98.3x62.6x5.5mm, TFT, LED B/L	86.847	81.514	76.182	
AM-640480ETMCW-00H	640x480 pix, 10.4", 225.5x176.3x9.5mm, TFT, CCFL B/L	263.556	247.373	231.190	
AM-320240N1TMQWT2H(5.7")	320x240 pix, 5.7", 145x109x14.5mm, Controller, TFT, LED B/L	131.830	123.735	115.640	
LED Dot Matrix Displays		1-4	5-24	25-99	100+
TA07-11YWA	0.7"/18mm 5x7 02 yellow CA	1.863	1.690	1.437	1.331
TC12-11GWA	1.2"/30mm 5x7 03 green CC	2.019	1.831	1.557	1.442
TC12-11EWA	1.2"/30mm 5x7 03 red CC	2.174	1.972	1.677	1.553
TA15-11SRWA	1.5"/38mm 8x8 02 red CA	4.503	4.085	3.474	3.217
TA15-11GWA	1.5"/38mm 8x8 02 green CA	3.882	3.522	2.995	2.773
TA20-11SRWA	2.0"/50mm 5x7 05 red CA	3.012	2.733	2.324	2.152
TC20-11SRWA	2.0"/50mm 5x7 05 red CC	3.012	2.733	2.324	2.152
TA20-11EWA	2.0"/50mm 5x7 05 hi.eff. red CA	2.671	2.423	2.060	1.908
TC20-11EWA	2.0"/50mm 5x7 05 hi.eff. red CC	2.671	2.423	2.060	1.908
TA40-11GWA	4.0"/100mm 5x7 05 green CA	8.696	7.888	6.708	6.211
TA40-11SRWA	4.0"/100mm 5x7 05 red CA	9.628	8.734	7.427	6.877
TA24-11GWA	2.4"/60mm 5x8 05 green CA	3.261	2.958	2.516	2.329
TC24-11EWA	2.4"/60mm 5x8 05 hi.eff. red CA	3.261	2.958	2.516	2.329
TC24-11SRWA	2.4"/60mm 5x8 05 red CC	3.416	3.099	2.635	2.440
TBA12-22EGWA	1.2"/30mm 5x7 03 red/green CA	3.727	3.381	2.875	2.662
TBA15-11EGWA	1.5"/38mm 8x8 03.7 red/green CA	7.143	6.480	5.510	5.102
TBA20-11EGWA	2.0"/50mm 5x7 05 red/green CA	4.503	4.085	3.474	3.217
TBA23-11EGWA	2.3"/58mm 8x8 05 red/green CA	8.075	7.325	6.229	5.768
TBA23-12EGWA	2.3"/58mm 8x8 05 red/green CA	8.075	7.325	6.229	5.768
TBC23-12EGWA	2.3"/58mm 8x8 05 red/green CC	8.075	7.325	6.229	5.768
TBA40-11EGWA	4.0"/100mm 5x7 05 red/green CA	12.423	11.269	9.583	8.873
LED Light Bar		1-4	5-24	25-99	100+
KB-A100SRW	8.89 x 3.81 mm light bar, white diffused, RED	0.379	0.343	0.292	0.270
KB-B100SRW	19.05 x 3.81 mm light bar, white diffused, RED	0.505	0.458	0.389	0.361
KB-H100SRW	8.89 x 19.05 mm light bar, white diffused, RED	1.009	0.916	0.779	0.721
KB-2500SGD	3.81 x 19.05 mm light bar, green diffused, GREEN	0.347	0.315	0.268	0.248
KB-2885SGD	8.89 x 19.05 mm light bar, green diffused, GREEN	0.946	0.858	0.730	0.676
LED Displays		1-4	5-24	25-99	100+
SA36-11GWA	0.36"/9.1mm green CA	0.504	0.457	0.389	0.360
SC36-11GWA	0.36"/9.1mm green CC	0.504	0.457	0.389	0.360
SA36-11EWA	0.36"/9.1mm red CA	0.550	0.499	0.424	0.393
SA36-11HWA	0.36"/9.1mm red CA	0.592	0.537	0.457	0.423
SC36-11EWA	0.36"/9.1mm red CC	0.550	0.499	0.424	0.393
SC36-11HWA	0.36"/9.1mm red CC	0.592	0.537	0.457	0.423
SC36-11SRWA	0.36"/9.1mm red CC	0.596	0.541	0.460	0.426
SA36-11SRWA	0.36"/9.1mm red CA	0.596	0.541	0.460	0.426
SA39-11GWA	0.39"/9.9mm green CA	0.504	0.457	0.389	0.360
SA39-11EWA	0.39"/9.9mm red CA	0.550	0.499	0.424	0.393
SA39-11SRWA	0.39"/9.9mm red CA	0.596	0.541	0.460	0.426

LED Displays

		1-4	5-24	25-99	100+
SC39-11GWA	0.39"/9.9mm green CC	0.504	0.457	0.389	0.360
SC39-11SRWA	0.39"/9.9mm red CC	0.596	0.541	0.460	0.426
DA04-11GWA	0.4"/10.2mm dual digit green CA	0.749	0.679	0.578	0.535
DA04-11SRWA	0.4"/10.2mm dual digit red CA	0.917	0.832	0.707	0.655
SC04-11EWA	0.4"/10.2mm red CC	0.565	0.513	0.436	0.404
SC04-11GWA	0.4"/10.2mm green CC	0.520	0.471	0.401	0.371
SC04-11SRWA	0.4"/10.2mm red CC	0.611	0.554	0.471	0.437
SA05-11SRWA	0.5"/12.7mm red CA	0.626	0.568	0.483	0.447
SC05-11SRWA	0.5"/12.7mm red CC	0.626	0.568	0.483	0.447
SA52-11EWA	0.52"/13.2mm red CA	0.596	0.541	0.460	0.426
SA52-11HWA	0.52"/13.2mm red CA	0.641	0.582	0.495	0.458
SA52-11SRWA	0.52"/13.2mm red CA	0.642	0.582	0.495	0.458
SC52-11GWA	0.52"/13.2mm green CC	0.565	0.513	0.436	0.404
SC52-11EWA	0.52"/13.2mm red CC	0.596	0.541	0.460	0.426
SC52-11HWA	0.52"/13.2mm red CC	0.641	0.582	0.495	0.458
SC52-11SRWA	0.52"/13.2mm red CC	0.642	0.582	0.495	0.458
CA56-11EWA	0.56"/13.2mm four digit red CA	1.925	1.746	1.485	1.375
CA56-12EWA	0.56"/13.2mm four digit red CA	1.925	1.746	1.485	1.375
CA56-12GWA	0.56"/13.2mm four digit green CA	1.895	1.719	1.462	1.353
CA56-12SRWA	0.56"/13.2mm four digit red CA	1.986	1.802	1.532	1.419
CC56-12SRWA	0.56"/13.2mm four digit red CC	1.986	1.802	1.532	1.419
CA56-21SRWA	0.56"/13.2mm four digit red CA	1.986	1.802	1.532	1.419
SA56-11GWA	0.56"/13.2mm green CA	0.493	0.447	0.380	0.352
SC56-11GWA	0.56"/13.2mm green CC	0.493	0.447	0.380	0.352
SC56-11EWA	0.56"/13.2mm red CC	0.524	0.475	0.404	0.374
SC56-11SRWA	0.56"/13.2mm red CC	0.585	0.531	0.451	0.418
SA56-11EWA	0.56"/13.2mm red CA	0.524	0.475	0.404	0.374
SA56-11SRWA	0.56"/13.2mm red CA	0.585	0.531	0.451	0.418
DC56-11GWA	0.56"/14.2mm dual digit green CC	0.909	0.824	0.701	0.649
DC56-11HWA	0.56"/14.2mm dual digit red CC	1.142	1.036	0.881	0.816
DA56-11GWA	0.56"/14.2mm dual digit green CA	0.909	0.824	0.701	0.649
DC56-11SRWA	0.56"/14.2mm dual digit red CC	1.100	0.998	0.849	0.786
DA56-11SRWA	0.56"/14.2mm dual digit red CA	1.100	0.998	0.849	0.786
DA56-11EWA	0.56"/14.2mm dual digit red CA	1.008	0.915	0.778	0.720
DA56-11HWA	0.56"/14.2mm dual digit red CA	1.133	1.028	0.874	0.809
DC56-11YWA	0.56"/14.2mm dual digit yellow CC	1.008	0.915	0.778	0.720
BA56-11EWA	0.56"/14.2mm three-digit red CA	1.406	1.275	1.084	1.004
BA56-12SRWA	0.56"/14.2mm three-digit red CA	1.497	1.358	1.155	1.070
BC56-11SRWA	0.56"/14.2mm three-digit red CC	1.497	1.358	1.155	1.070
BC56-12SRWA	0.56"/14.2mm three-digit red CC	1.497	1.358	1.155	1.070
BC56-12GWA	0.56"/14.2mm three-digit green CC	1.284	1.164	0.990	0.917
SA08-11EWA	0.8"/20.32mm red CA	0.719	0.652	0.555	0.514
SA08-11HWA	0.8"/20.32mm red CA	0.823	0.746	0.635	0.588
SA08-11GWA	0.8"/20.32mm green CA	0.688	0.624	0.531	0.491
SC08-11EWA	0.8"/20.32mm red CC	0.719	0.652	0.555	0.514
SC08-11HWA	0.8"/20.32mm red CC	0.823	0.746	0.635	0.588
SC08-11SRWA	0.8"/20.32mm red CC	0.782	0.709	0.603	0.558
DA08-11EWA	0.8"/20.3mm dual digit red CA	1.626	1.475	1.255	1.162
DA08-11GWA	0.8"/20.3mm dual digit green CA	1.564	1.418	1.206	1.117
DA08-11YWA	0.8"/20.3mm dual digit yellow CA	1.626	1.475	1.255	1.162
DC08-11EWA	0.8"/20.3mm dual digit red CC	1.626	1.475	1.255	1.162
DC08-11GWA	0.8"/20.3mm dual digit green CC	1.564	1.418	1.206	1.117
DC08-11YWA	0.8"/20.3mm dual digit yellow CC	1.626	1.475	1.255	1.162
PSA08-11EWA	0.8"/20mm alphanumeric, red CA	1.188	1.078	0.917	0.849
PSA08-11GWA	0.8"/20mm alphanumeric, green CA	1.126	1.021	0.869	0.804
SA10-11SRWA	1.0"/25.4mm red CA	1.313	1.192	1.013	0.938
SA10-21SRWA	1.0"/25.4mm red CA	1.313	1.192	1.013	0.938
SA10-21EWA	1.0"/25.4mm red CA	1.220	1.106	0.941	0.871
SC10-11EWA	1.0"/25.4mm red CC	1.220	1.106	0.941	0.871
SC10-21EWA	1.0"/25.4mm red CC	1.220	1.106	0.941	0.871
SC10-21SRWA	1.0"/25.4mm red CC	1.313	1.192	1.013	0.938
PSA12-11EWA	1.2"/30mm alphanumeric, red CA	2.033	1.844	1.568	1.452
SBA15-11EGWA	1.5"/38mm red/green CA	2.502	2.270	1.930	1.787
SA15-11GWA	1.5"/38mm green CA	1.783	1.617	1.375	1.273

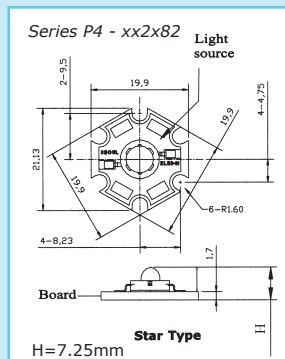


LED Displays		1-4	5-24	25-99	100+	
SC15-11GWA	1.5"/38mm green CA	1.783	1.617	1.375	1.273	
SC15-11SRWA	1.5"/38mm red CA	1.908	1.731	1.472	1.363	
SA15-11EWA	1.5"/38mm red CA	1.814	1.645	1.399	1.296	
SA15-11SRWA	1.5"/38mm red CA	1.908	1.731	1.472	1.363	
SA18-11GWA	1.8"/45mm green CA	2.346	2.128	1.809	1.675	
SC18-11GWA	1.8"/45mm green CC	2.346	2.128	1.809	1.675	
SA18-11EWA	1.8"/45mm red CA	2.471	2.241	1.906	1.765	
SA18-11SRWA	1.8"/45mm red CA	2.596	2.355	2.002	1.854	
SA23-12GWA	2.3"/56.9mm green CA	3.440	3.121	2.654	2.457	
SA23-12EWA	2.3"/56.9mm red CA	3.596	3.262	2.774	2.569	
SA23-11SRWA	2.3"/56.9mm red CA	3.909	3.546	3.016	2.792	
SC23-11SRWA	2.3"/56.9mm red CC	3.909	3.546	3.016	2.792	
SA23-11GWA	2.3"/56.9mm green CA	3.440	3.121	2.654	2.457	
SA23-11EWA	2.3"/56.9mm red CA	3.596	3.262	2.774	2.569	
SA23-12SRWA	2.3"/56.9mm red CA	3.909	3.546	3.016	2.792	
SA40-18SRWA	4"/100mm red CA	10.946	9.929	8.444	7.818	
SA40-19SRWA	4"/100mm red CA	10.840	9.834	8.363	7.743	
DC-10YWA	1.0"/25.4mm bargraph yellow	0.672	0.610	0.519	0.480	
DC-10GWA	1.0"/25.4mm bargraph green	0.672	0.610	0.519	0.480	
DC-7G3EWA	1.0"/25.4mm bargraph green/red	0.877	0.796	0.677	0.626	
DC-7G3HWA	1.0"/25.4mm bargraph green/red	0.703	0.638	0.542	0.502	
DC-10EWA	1.0"/25.4mm bargraph red	0.672	0.610	0.519	0.480	
DC-10SRWA	1.0"/25.4mm bargraph red	0.733	0.665	0.566	0.524	
HDA-3616DR	0.36"/9.1mm red CA	0.388	0.352	0.299	0.277	
HDA-3613	0.36"/9.1mm green CA	0.377	0.342	0.291	0.269	
HDA-5616CR	0.56"/13.2mm red CA	0.535	0.485	0.413	0.382	
HDA-5626CR	0.56"/14.2mm dual digit red CA	0.844	0.765	0.651	0.603	
LED Lamps		1-9	10-99	100-499	500+	2000+
L-1384AL/1GD	3mm Housing LED 8-15mcd 568nm GREEN DIFF.	0.103	0.092	0.085	0.077	0.074
L-1384AL/1ID	3mm Housing LED 12-20mcd 625nm RED DIFF.	0.103	0.092	0.085	0.077	0.074
L-1384AL/1YD	3mm Housing LED 8-15mcd 588nm YELLOW DIFF.	0.103	0.092	0.085	0.077	0.074
L-934EC	3mm 20-80mcd/20mA 625nm RED W.CLEAR	0.053	0.047	0.044	0.040	0.038
L-934GD	3mm 8-32mcd/20mA 568nm GREEN DIFF.	0.047	0.042	0.039	0.035	0.034
L-934HD	3mm 1.3-3mcd/20mA 660nm RED DIFFUSED	0.051	0.045	0.042	0.038	0.036
L-934ID	3mm 8-50mcd/20mA 625nm RED DIFFUSED	0.053	0.047	0.044	0.040	0.038
L-934LGD	3mm 8-15mcd/2mA 568nm GREEN DIFFUSED	0.047	0.042	0.039	0.035	0.034
L-934LSRD	3mm 8-20mcd/2mA 640nm RED DIFFUSED	0.053	0.047	0.044	0.040	0.038
L-934MBC	3mm 12.5-40mcd/20mA 455nm BLUE W.CLEAR	0.600	0.536	0.493	0.450	0.429
L-934MBDL	3mm 12.5-40mcd/20mA 455nm BLUE DIFFUSED	0.600	0.536	0.493	0.450	0.429
L-934SGC	3mm 100-300mcd/20mA 568nm GREEN CLEAR	0.047	0.042	0.039	0.035	0.034
L-934SGD	3mm 40-60mcd/20mA 568nm GREEN DIFFUSED	0.047	0.042	0.039	0.035	0.034
L-934SRC-D	3mm 500-600mcd/20mA 640nm RED W.CLEAR	0.053	0.047	0.044	0.040	0.038
L-934SRC-E	3mm 700-900mcd/20mA 640nm RED W.CLEAR	0.053	0.047	0.044	0.040	0.038
L-934SRD-D	3mm 100-200mcd/20mA 640nm RED DIFFUSED	0.053	0.047	0.044	0.040	0.038
L-934SRD-E	3mm 200-250mcd/20mA 640nm RED DIFFUSED	0.053	0.047	0.044	0.040	0.038
L-934SRD-H	3mm 650-800mcd/20mA 640nm RED DIFFUSED	0.196	0.175	0.161	0.147	0.140
L-934SRD-J	3mm 900-1200mcd/20mA 640nm RED DIFFUSED	0.196	0.175	0.161	0.147	0.140
L-934YC	3mm 10-50mcd/20mA 588nm YELLOW W.CLEAR	0.053	0.047	0.044	0.040	0.038
L-934YD	3mm 8-32mcd/20mA 588nm YELLOW DIFFUSED	0.053	0.047	0.044	0.040	0.038
L-115WGYW	3mm 12-50mcd/20mA GREEN/YELLOW 3-pin	0.133	0.118	0.109	0.099	0.095
L-115WEYW	3mm 12-50mcd/20mA RED/YELLOW 3-pin	0.133	0.118	0.109	0.099	0.095
L-115WEGW	3mm 12-50mcd/20mA RED/GREEN 3-pin	0.133	0.118	0.109	0.099	0.095
L-937EGW	3mm 20-40mcd/20mA RED/GREEN 2-pin	0.121	0.108	0.099	0.091	0.086
L-1503CB/1GD	5 mm housing LED 30mcd/20mA 568nm GR. right angle	0.104	0.093	0.085	0.078	0.074
L-1503CB/1ID	5 mm housing LED 30mcd/20mA 625nm RED right angle	0.104	0.093	0.085	0.078	0.074
L-1503CB/1YD	5 mm housing LED 30mcd/20mA 588nm YELL. right angle	0.104	0.093	0.085	0.078	0.074
L-1513SGC	5mm 100-300mcd/20mA 568nm GREEN CLEAR	0.082	0.073	0.067	0.062	0.059
L-1513SRC-D	5mm 1000-2000mcd/20mA 640nm RED CLEAR	0.081	0.072	0.066	0.060	0.058
L-53ED	5mm 12-80mcd/20mA 625nm ORANGE DIFF.	0.054	0.048	0.044	0.040	0.038
L-53GD	5mm 5-32 mcd/20mA 568nm GREEN DIFF.	0.051	0.045	0.042	0.038	0.036
L-53ID	5mm 12-80mcd/20mA 625nm RED DIFF.	0.054	0.048	0.044	0.040	0.038
L-53LGD	5mm 0.8-3.2 mcd/2mA 568nm GREEN DIFF.	0.051	0.045	0.042	0.038	0.036
L-53LSRD	5mm 8-20mcd/2mA 640nm RED DIFF.	0.054	0.048	0.044	0.040	0.038
L-53LYD	5mm 0.8-3.2 mcd/2mA 588nm YELLOW DIFF.	0.054	0.048	0.044	0.040	0.038
L-53MBC	5mm 40-150mcd/20mA 455nm BLUE CLEAR	0.605	0.540	0.497	0.454	0.432
L-53MBDL	5mm 20-60mcd/20mA 455nm BLUE DIFFUSED	0.605	0.540	0.497	0.454	0.432
L-53SEC-H	5mm 7000-10000mcd/20mA 630nm H.ORANGE CLEAR	0.356	0.318	0.293	0.267	0.255
L-53SGC	5mm 100-300 mcd/20mA 568nm GREEN CLEAR	0.050	0.045	0.041	0.038	0.036
L-53SGD	5mm 20-60 mcd/20mA 568nm GREEN DIFF.	0.050	0.045	0.041	0.038	0.036
L-53SRC-C	5mm 500-1000mcd/20mA 640nm RED W.CLEAR	0.053	0.048	0.044	0.040	0.038
L-53SRC-DU	5mm 900-1100mcd/20mA 640nm RED W.CLEAR	0.053	0.048	0.044	0.040	0.038
L-53SRC-F	5mm 3500-4500mcd/20mA 640nm RED W.CLEAR	0.189	0.169	0.155	0.142	0.135
L-53SRD-C	5mm 110-200mcd/20mA 640nm RED DIFFUSED	0.053	0.048	0.044	0.040	0.038
L-53SRD-E	5mm 300-500mcd/20mA 640nm RED DIFFUSED	0.053	0.048	0.044	0.040	0.038
L-53SRD-H	5mm 1000-1500mcd/20mA 640nm RED DIFFUSED	0.198	0.177	0.163	0.148	0.141
L-53SURC-E	5mm 2000 mcd/20mA 630nm RED W.CLEAR	0.178	0.159	0.146	0.134	0.127
L-53SYC	5mm 400-1000mcd/20mA 588nm YELLOW W.CLEAR	0.119	0.106	0.098	0.089	0.085

LED Lamps		1-9	10-99	100-499	500+	2000+
L-53SYD	5mm 100-500 mcd/20mA 588nm YELLOW DIFF.	0.119	0.106	0.098	0.089	0.085
L-53SYT	5mm 400-1000mcd/20mA 588nm YELLOW TRANSP.	0.119	0.106	0.098	0.089	0.085
L-53VGC-E	5mm 2800-4500mcd/20mA 525nm GREEN W.CLEAR	0.594	0.530	0.488	0.445	0.424
L-53YD	5mm 0.8-3.2 mcd/20mA 588nm YELLOW DIFF.	0.053	0.048	0.044	0.040	0.038
L-568ID	5mm 20-80 mcd/9V RED DIFF. BLINKING	0.297	0.265	0.244	0.223	0.212
L-57EGW	5mm 12-40mcd/20mA bi-color 2-pin	0.122	0.109	0.100	0.091	0.087
L-59EGW	5mm 20-70mcd/20mA bi-color 3-pin	0.122	0.109	0.100	0.091	0.087
L-59SRSGW-CC	5mm 40-80mcd/20mA bi-color 3-pin	0.134	0.119	0.110	0.100	0.095
L-7113PBC-H	5mm 1500-3200mcd/20mA BLUE CLEAR	1.061	0.947	0.872	0.796	0.758
L-154A4SURKPBVGKW	5mm 160-500mcd/20mA HYPER RED/BLUE/GREEN	2.088	1.805	1.685	1.491	
L-799EGW	8mm 30/80 mcd bi-color WHITE DIFFUSED	0.193	0.167	0.156	0.138	
L-813ED	10mm 40-150mcd/20mA 625nm ORANGE DIFFUSED	0.090	0.078	0.073	0.065	
L-813GD	10mm 20-70mcd/20mA 568nm GREEN DIFFUSED	0.090	0.078	0.073	0.065	
L-813ID	10mm 40-150mcd/20mA 625nm RED DIFFUSED	0.090	0.078	0.073	0.065	
L-813SGC	10mm 200-350mcd /20mA 628nm GREEN W.CLEAR	0.112	0.097	0.090	0.080	
L-813SRC-C	10mm 1000-1500mcd /20mA 640nm RED W.CLEAR	0.099	0.086	0.080	0.071	
L-813SRC-D	10mm 1600-1800mcd /20mA 640nm RED W.CLEAR	0.098	0.085	0.079	0.070	
L-813SRC-E	10mm 2000-3000mcd /20mA 640nm RED W.CLEAR	0.264	0.228	0.213	0.189	
L-813SRC-F	10mm 3000-3800mcd /20mA 640nm RED W.CLEAR	0.293	0.253	0.237	0.210	
L-813SRD-C	10mm 200-350mcd /20mA 640nm RED DIFFUSED	0.100	0.086	0.080	0.071	
L-813SRD-E	10mm 450-550mcd /20mA 640nm RED DIFFUSED	0.100	0.086	0.080	0.071	
L-813SRD-F	10mm 550-650mcd /20mA 640nm RED DIFFUSED	0.293	0.253	0.237	0.210	
L-813SRD-H	10mm 800-1200mcd /20mA 640nm RED DIFFUSED	0.293	0.253	0.237	0.210	
L-813SYC-H	10mm 760-2700mcd/20mA 588nm YELLOW W.CLEAR	0.495	0.428	0.399	0.354	
L-813YD	10mm 20-70mcd/20mA 588nm YELLOW DIFFUSED	0.091	0.078	0.073	0.065	
DLA/6SGD	20mm 200mcd/20mA S-GREEN	0.713	0.616	0.575	0.509	
DLA/6SRD	20mm 400mcd/20mA H-RED	0.831	0.719	0.671	0.594	
DLA/6YD	20mm 50mcd/20mA YELLOW	0.713	0.616	0.575	0.509	
DLC2/6ID	20mm 80mcd/20mA RED	0.713	0.616	0.575	0.509	
DLC2/6GD	20mm 50mcd/20mA GREEN	0.713	0.616	0.575	0.509	
L-144GDT	1.9x3.9mm 2-8mcd/20mA 568nm GREEN DIFF.	0.062	0.056	0.051	0.047	0.045
L-144EDT	1.9x3.9mm 20mcd/20mA 625nm ORANGE DIF.	0.062	0.056	0.051	0.047	0.045
L-103GDT	2.0x5mm 2-8mcd/20mA 568nm GREEN DIFF.	0.050	0.045	0.041	0.038	0.036
L-103IDT	2.0x5mm 3-12mcd/20mA 625nm RED DIFF.	0.050	0.045	0.041	0.038	0.036
L-113GDT	2.0x5mm 2-8mcd/20mA 568nm GREEN DIFF.	0.050	0.045	0.041	0.038	0.036
L-113IDT	2.0x5mm 3-12mcd/20mA 625nm RED DIFF.	0.053	0.048	0.044	0.040	0.038
L-153IDT	2.3x7mm 3.2-12.5mcd/20mA 625nm RED DIFF.	0.077	0.069	0.063	0.058	0.055
L-383IDT	2.5 x 5mm 3-5mcd/20mA 625nm RED DIFF.	0.065	0.058	0.053	0.049	0.046
L-323HDT	3 x 4.5mm 1mcd/10mA 660nm RED DIFF.	0.091	0.082	0.075	0.069	0.065
L-503GDT	5x5mm 3mcd/20mA 568nm GREEN DIFF.	0.062	0.056	0.051	0.047	0.045
		1-9	10-99	100-499	500-1999	2000+
CLL-30221	3 mm Bright Red Diffused 1.8mcd	0.030	0.020	0.016	0.0142	0.0135
MLL-30231	3 mm Bright Red Diffused 12mcd	0.038	0.026	0.021	0.0181	0.0172
MLL-30231-TP	3 mm Bright Red Diffused 12mcd-TP	0.052	0.035	0.028	0.0246	0.0235
CLL-30321	3 mm Hi-Eff Red Diffused 5mcd	0.038	0.026	0.021	0.0181	0.0172
CLL-30331	3mm Hi-Eff Red Diffused 8mcd	0.041	0.028	0.023	0.0197	0.0188
MLL-30331	3 mm Hi-Eff Red Diffused 12mcd	0.041	0.028	0.022	0.0194	0.0184
MUB-30031	3 mm Super Red Diffused 60mcd	0.070	0.048	0.038	0.0334	0.0318
CLL-30322	3 mm Hi-Eff Red Transparent 10mcd	0.038	0.026	0.021	0.0179	0.0171
MLL-30332	3 mm Hi-Eff Red Transparent 30mcd	0.041	0.028	0.022	0.0194	0.0184
CLL-30421	3 mm Orange Diffused 5mcd	0.038	0.026	0.021	0.0181	0.0172
MLL-30431	3 mm Orange Diffused 12mcd	0.041	0.028	0.022	0.0194	0.0184
CLL-30521	3 mm Yellow Diffused 3.5mcd	0.037	0.025	0.021	0.0178	0.0169
MLL-30531	3 mm Yellow Diffused 9mcd	0.044	0.030	0.024	0.0209	0.0199
CLL-30522	3 mm Yellow Transparent 10mcd	0.036	0.025	0.020	0.0173	0.0165
MLL-30532	3 mm Yellow Transparent 30mcd	0.044	0.030	0.024	0.0209	0.0199
CLL-30621	3 mm Green Diffused 3.5mcd	0.033	0.022	0.018	0.0157	0.0150
CLL-30631	3 mm Green Diffused 8mcd	0.036	0.024	0.020	0.0170	0.0162
MLL-30631	3 mm Green Diffused 12mcd	0.039	0.027	0.022	0.0187	0.0178
CLL-30622	3 mm Green Transparent 8mcd	0.033	0.022	0.018	0.0156	0.0148
MLL-30632	3 mm Green Transparent 30mcd	0.039	0.027	0.021	0.0186	0.0177
ML37W13H-BEF	3 mm White Water Clear 3500mcd	0.323	0.288	0.265	0.2422	0.2306
ML37B23H-BED	3mm Blue Water Clear 1200mcd	0.209	0.186	0.172	0.1567	0.1492
CLL-50221	5 mm Bright Red Diffused 2.5mcd	0.033	0.023	0.018	0.0160	0.0152
MLL-50231	5 mm Bright Red Diffused 16mcd	0.041	0.028	0.023	0.0196	0.0187
CLL-50321	5 mm Hi-Eff Red Diffused 5mcd	0.041	0.028	0.023	0.0197	0.0187
CLL-50331-TP	5 mm Hi-Eff Red Diffused 5mcd-TP	0.059	0.040	0.032	0.0281	0.0268
MLL-50331	5 mm Hi-Eff Red Diffused 20mcd	0.044	0.030	0.024	0.0212	0.0202
MUB-50031	5 mm Super Red Diffused 50mcd	0.075	0.051	0.041	0.0356	0.0339
CLL-50322	5 mm Hi-Eff Red Transparent 12mcd	0.044	0.030	0.024	0.0211	0.0201
CLL-50332	5 mm Hi-Eff Red Transparent 45mcd	0.044	0.030	0.024	0.0211	0.0201
MLL-50332	5 mm Hi-Eff Red Transparent 55mcd	0.044	0.030	0.024	0.0211	0.0201

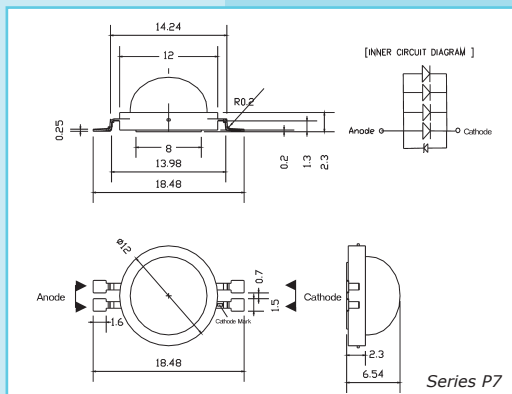
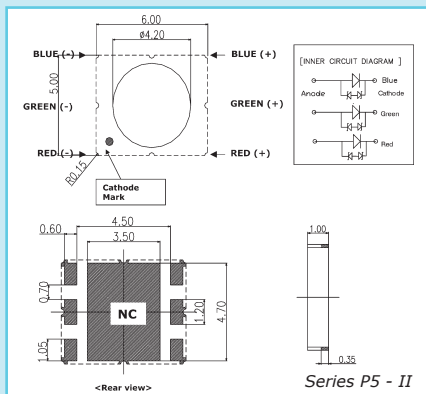
LED Lamps		1-9	10-99	100-499	500+	2000+
CLL-50421	5 mm Orange Diffused 5mcd	0.042	0.028	0.023	0.0199	0.0190
MLL-50431	5 mm Orange Diffused 20mcd	0.044	0.030	0.024	0.0212	0.0202
CLL-50422	5 mm Orange Transparent 12mcd	0.042	0.028	0.023	0.0199	0.0190
MLL-50432	5 mm Orange Transparent 56mcd	0.035	0.024	0.019	0.0165	0.0157
CLL-50521	5 mm Yellow Diffused 4mcd	0.040	0.027	0.022	0.0192	0.0183
MLL-50531	5 mm Yellow Diffused 20mcd	0.048	0.033	0.026	0.0228	0.0217
CLL-50522	5 mm Yellow Transparent 12mcd	0.041	0.028	0.022	0.0194	0.0185
MLL-50532	5 mm Yellow Transparent 56mcd	0.047	0.032	0.026	0.0224	0.0213
CLL-50621	5 mm Green Diffused 4mcd	0.036	0.025	0.020	0.0173	0.0165
CLL-50631-TP	5 mm Green Diffused 4mcd	0.053	0.036	0.029	0.0254	0.0242
MLL-50631	5 mm Green Diffused 20mcd	0.043	0.029	0.024	0.0204	0.0195
CLL-50622	5 mm Green Transparent 8mcd	0.037	0.025	0.020	0.0175	0.0167
MLL-50632	5 mm Green Transparent 56mcd	0.042	0.029	0.023	0.0202	0.0192
ML50B13H-BB	5mm Blue Water Clear 1000mcd	0.210	0.188	0.173	0.1575	0.1500
ML50B25H-DED	5mm Blue Diffused 1000mcd	0.215	0.192	0.177	0.1612	0.1536
ML50W13H-BEE	5mm White Water Clear 6000mcd	0.255	0.228	0.209	0.1911	0.1820
MLL-100331	10 mm Hi-Eff Red Diffused 30mcd	0.058	0.052	0.048	0.0436	0.0415
MLL-100531	10 mm Yellow Diffused 30mcd	0.060	0.054	0.050	0.0454	0.0432
MLL-100631	10 mm Green Diffused 30mcd	0.063	0.056	0.052	0.0474	0.0452
SLR-050RGB40	5mm1200/6000/1500mcd/20mA RED/GREEN/BLUE	0.862	0.839	0.783	0.6930	
SLR-030NB40	3 mm Blue Water Clear 1500mcd 25deg	0.168	0.145	0.135	0.1197	
SLR-05MNB40	5 mm Blue Water Clear 3500mcd 15deg	0.168	0.145	0.135	0.1197	
SLR-050NW40	5 mm White Water Clear 20000mcd 15deg	0.326	0.282	0.263	0.2328	
SLR-100NW4A	10 mm White Water Clear 11000mcd 25deg	0.282	0.244	0.228	0.2017	
		1-9	10-99	100+	500+	
HB3b-448ABCA/P	3mm Blue 468nm water clear 2700mcd 15deg	0.288	0.249	0.232	0.2055	
HB5-436ARA-C	5mm Red 645nm water clear 2800mcd 30deg	0.113	0.098	0.091	0.0808	
HB5d-435AOR-D	5mm Fresh Red 626nm water clear 3600mcd 30deg	0.104	0.090	0.084	0.0742	
HB5-435FO-C	5mm Orange 615nm water clear 2400mcd 40deg	0.122	0.106	0.099	0.0875	
HB5-434AY	5mm Yellow 590nm water clear 3000mcd 12deg	0.081	0.070	0.066	0.0582	
HB5-434AY-C	5mm Yellow 590nm water clear 1000mcd 40deg	0.070	0.061	0.057	0.0502	
HB5-434FY-C	5mm Yellow 590nm water clear 2400mcd 40deg	0.122	0.105	0.098	0.0868	
HB5d-434FY-C	5mm Yellow 590nm water clear 3800mcd 24deg	0.104	0.090	0.084	0.0742	
HB5d-434FY-D	5mm Yellow 590nm water clear 3200mcd 30deg	0.104	0.090	0.084	0.0742	
HB5-433BG-C	5mm Yellow Green 572nm water clear 900mcd 40deg	0.160	0.138	0.129	0.1141	
HB5-433CG-C	5mm Yellow Green 567nm water clear 500mcd 30deg	0.078	0.067	0.063	0.0555	
HB5b-433AGCA	5mm Pure Green 525nm water clear 11000mcd 10deg	0.616	0.532	0.497	0.4399	
HB5d-433EAGC-D	5mm Pure Green 525nm water clear 4500mcd 30deg	0.532	0.460	0.429	0.3801	
HB5d-433EBA-D	5mm Bluish Green 505nm water clear 5400mcd 35deg	0.560	0.484	0.452	0.4000	
HB5-439AWD	5mm White water clear 6000mcd typ. 43deg	0.532	0.460	0.429	0.3801	
HB10b-433BG	10mm Yellow Green 572nm water clear 4000mcd 7deg	0.203	0.175	0.164	0.1447	
HB10b-436AR	10mm Red 645nm water clear 6000mcd 7deg	0.175	0.151	0.141	0.1248	
HB10b-434AY	10mm Yellow 590nm water clear 7000mcd 7deg	0.175	0.151	0.141	0.1248	
		1-9	10-99	100-499	500-1999	2000+
LC503THR1-30Q-A	5 mm High-Eff Red 628nm, 3300mcd, watertransp. 30deg	0.193	0.172	0.158	0.144	0.1376
LC503UHR1-30Q-A	5 mm High-Eff Red 624nm, 5100mcd, watertransp. 30deg	0.180	0.161	0.148	0.135	0.1286
LC503UYL1-30Q-A	5 mm Yellow 591nm, 4800mcd, watertransp. 30deg	0.180	0.161	0.148	0.135	0.1286
LC503FP61-30Q-A3	5 mm Green 527nm, 12500mcd, watertransp. 15deg	0.329	0.293	0.270	0.246	0.2347
LC503FBL1-15Q-A3	5 mm Blue 470nm, 11000mcd, watertransp. 30deg	0.333	0.298	0.274	0.250	0.2381
LC503FBL1-30Q-A3	5 mm Blue 470nm, 4100mcd, watertransp. 30deg	0.329	0.293	0.270	0.246	0.2347
LC503FWH1-15Q-A0	5 mm White, 24000mcd, watertransp. 15deg	0.333	0.298	0.274	0.250	0.2381
LC513FWH1-60Q-A0	5 mm White, 41000mcd, watertransp. 30deg	0.329	0.293	0.270	0.246	0.2347
LO566UYL3-70H-A3	5 mm oval Yellow 591nm, 2500mcd, watertransp. 70deg	0.202	0.181	0.166	0.152	0.1445
LL1503PTBG1-301	5 mm Bluish Green 505nm, 7000mcd, watertransp. 30deg	0.299	0.258	0.241	0.213	
LL1530QUHR1-301	5 mm High-Eff Red 624nm, 4000mcd, watertransp. 30deg	0.205	0.177	0.165	0.146	
LL1530QVYL1-301	5 mm Yellow 591nm, 4000mcd, watertransp. 30deg	0.205	0.177	0.165	0.146	
LL2501PTBG4-702	5 mm oval Bluish Green 505nm, 2300mcd typ, transp.	0.331	0.286	0.267	0.237	
LL2508JQHR4-702	5 mm oval High-Eff Red 624nm, 1700mcd typ, transp.	0.212	0.183	0.171	0.151	
RTF-5010	5mm LED Holder, convex	0.074	0.064	0.060	0.0531	
RTF-5020	5mm LED Holder, concave	0.074	0.064	0.060	0.0531	
RTF-1090	10mm LED Holder	0.127	0.109	0.102	0.0904	
		1-9	10-99	100-499	500-1999	2000+
SML010DT ROHM	3x2mm 3.6-10mcd/20mA ORANGE	0.119	0.106	0.098	0.089	0.085
SML010LT ROHM	3x2mm 5.6-16mcd/20mA RED	0.103	0.092	0.084	0.077	0.073
SML010MT ROHM	3x2mm 5.6-16mcd/20mA GREEN	0.104	0.093	0.086	0.078	0.074
SML010YT ROHM	3x2mm 2.2-6.3mcd/20mA YELLOW	0.116	0.104	0.096	0.087	0.083
SML020MLT ROHM	3x2.5mm 9-16mcd/20mA RED, 9-20mcd/20mA GREEN	0.164	0.147	0.135	0.123	0.117
SML210DT ROHM	2x1.25mm 3.6-10mcd/20mA ORANGE	0.084	0.075	0.069	0.063	0.060

SMD LEDs		1-9	10-99	100-499	500-1999	2000+
SML210LT ROHM	2x1.25mm 3.6-10mcd/20mA RED	0.088	0.079	0.073	0.066	0.063
SML210MT ROHM	2x1.25mm 3.6-10mcd/20mA GREEN	0.075	0.067	0.061	0.056	0.053
SML210VT ROHM	2x1.25mm 1.4-4 mcd/20mA RED	0.080	0.071	0.066	0.060	0.057
SML210YT ROHM	2x1.25mm 2.2-6.3mcd/20mA YELLOW	0.087	0.078	0.072	0.065	0.062
SML211UT ROHM	2x1.5mm 0.9-2.5mcd/2mA RED	0.136	0.121	0.111	0.102	0.097
SML310VT ROHM	1.6x0.8mm 1.4 - 4mcd/20mA RED	0.063	0.056	0.052	0.047	0.045
SML311UT ROHM	1.6x0.8mm 0.9-2.5mcd/2mA RED	0.108	0.097	0.089	0.081	0.077
KM-27ID-10	2x2mm 30 mcd/20mA, RED	0.120	0.107	0.098	0.090	0.086
KA-3528EC	3.5x2.8mm 30 mcd/20mA, RED	0.125	0.112	0.103	0.094	0.089
KA-3528SGC	3.5x2.8mm 25 mcd/20mA, GREEN	0.125	0.112	0.103	0.094	0.089
KAA-3528EMBSGC	3.5x2.8mm 25 mcd/20mA, RGB	0.986	0.881	0.810	0.740	0.705
KP-2012EC	2.0x1.2mm (0805), 3,2-12,5 mcd/20mA, RED	0.045	0.041	0.037	0.034	0.032
KP-2012SGC	2.0x1.2mm (0805), 3,2-15 mcd/20mA, GREEN	0.045	0.041	0.037	0.034	0.032
KP-2012YC	2.0x1.2mm (0805), 3,2-8 mcd/20mA, YELLOW	0.047	0.042	0.038	0.035	0.033
KP-2012QBC-D	2.0x1.2mm (0805), 100 mcd/20mA, BLUE	0.146	0.130	0.120	0.110	0.104
KP-3216EC	3.2x1.6mm (1206), 3,2-12,5 mcd/20mA, RED	0.048	0.043	0.040	0.036	0.035
KP-3216SGC	3.2x1.6mm (1206), 3,2-15 mcd/20mA, GREEN	0.048	0.043	0.040	0.036	0.035
KP-3216YC	3.2x1.6mm (1206), 3,2-8 mcd/20mA, YELLOW	0.050	0.044	0.041	0.037	0.035
KPTR-3216EC	3.2x1.6mm (1206), 3,2-12,5 mcd/20mA, RED	0.076	0.068	0.062	0.057	0.054
KPTR-3216SEC	3.2x1.6mm (1206), 70-200 mcd/20mA, RED	0.096	0.086	0.079	0.072	0.069
KPTR-3216SGC	3.2x1.6mm (1206), 3,2-15 mcd/20mA, GREEN	0.072	0.064	0.059	0.054	0.052
KPTR-3216YC	3.2x1.6mm (1206), 3,2-8 mcd/20mA, YELLOW	0.076	0.068	0.062	0.057	0.054
KPTR-3216SYC	3.2x1.6mm (1206), 40-60 mcd/20mA, YELLOW	0.096	0.086	0.079	0.072	0.069
KPTD-3216MGC	3.2x1.6mm (1206), 110-350 mcd/20mA, GREEN	0.219	0.196	0.180	0.164	0.157
KPKA-2810SURC	2.8x1.0mm (right angle), 70-250 mcd/20mA, RED	0.171	0.153	0.141	0.128	0.122
LM1-PWN1-01	3.2x2.7mm White 600mcd 120deg	0.604	0.540	0.496	0.453	0.432
LM1-PWN1-03	3.2x2.7mm White 1300mcd 120deg 3-in-1	1.197	1.034	0.966	0.855	0.000
LM1-PBG1-01	PLCC2 3.2x2.7mm Green 505nm 630mcd 120deg	0.545	0.487	0.448	0.409	0.389
LM1-PPG1-01-N1	PLCC2 3.2x2.7mm Green 527nm 560mcd 120deg	0.345	0.308	0.284	0.259	0.247
LM1-PBL1-01-N1	PLCC2 3.2x2.7mm Blue 470nm 160mcd 120deg	0.356	0.317	0.292	0.267	0.254
LM1-AHR1-01-N1	PLCC2 3.2x2.7mm Red 624nm 500mcd 120deg	0.242	0.216	0.199	0.182	0.173
LM1-TYL1-01-N1	PLCC2 3.2x2.7mm Yellow 591nm 300mcd 120deg	0.242	0.216	0.199	0.182	0.173
LM1-UHR1-11-N1	PLCC4 3.2x2.7mm Red 624 nm 1600mcd 120deg	0.258	0.231	0.212	0.194	0.184
LM1-UYL1-11-N1	PLCC4 3.2x2.7mm Yellow 591 nm 1500mcd 120deg	0.229	0.204	0.188	0.171	0.163
LM1-EPG1-11-N2	PLCC4 3.2x2.7mm Green 527 nm 1100mcd 120deg	0.345	0.308	0.283	0.259	0.246
LM1-EBL1-11-N2	PLCC4 3.2x2.7mm Blue 470nm 400mcd 120deg	0.334	0.299	0.275	0.251	0.239
LM1-EWN1-11-N2	PLCC4 3.2x2.7mm White 1400mcd 120deg	0.440	0.393	0.362	0.330	0.314
LP6-PPP1-01-N1	6.0x5.0mm Full Color 1000/900/390mcd 120deg	0.846	0.756	0.695	0.635	0.605
LS1-THR1-01	4.0x4.0mm High-Eff 400mcd 120deg Side SMD	0.394	0.341	0.318	0.281	
LS1-TYL1-01	4.0x4.0mm Yellow 350mcd 120deg Side SMD	0.394	0.341	0.318	0.281	
LS1-PPG1-01	4.0x4.0mm Pure Green 700mcd 120deg Side SMD	0.792	0.685	0.640	0.566	
LS1-PBL1-01	4.0x4.0mm Blue 200mcd 120deg Side SMD	0.734	0.635	0.593	0.525	
LS1-PWH1-01	4.0x4.0mm Daylight 450mcd 120deg Side SMD	1.067	0.922	0.861	0.762	
LEDs SEOUL SEMICONDUCTOR		1-9	10-99	100-499	500-1999	2000+
LW520A SSC	5mm White 1000mcd/20mA 22deg	0.772	0.690	0.634	0.579	0.552
LW551A SSC	5mm White 3000mcd/20mA 52deg	0.766	0.684	0.629	0.575	0.547
UHPT801 SSC	90mW Red 320mcd/30mA 640nm 120deg	0.438	0.391	0.360	0.329	0.313
SUYT801 SSC	90mW Yellow 350mcd/30mA 595nm 120deg	0.486	0.434	0.399	0.365	0.347
MGT801 SSC	120mW Green 690mcd/30mA 520nm 120deg	0.954	0.852	0.784	0.716	0.682
MBT801 SSC	120mW Blue 600mcd/30mA 465nm 120deg	0.585	0.522	0.480	0.438	0.418
MWT801 SSC	120mW White 1200mcd/30mA 120deg	0.743	0.663	0.610	0.557	0.530
UBMGFRT722 SSC	Red/Green/Blue 210/520/100mcd@30mA 120deg	1.877	1.622	1.515	1.341	

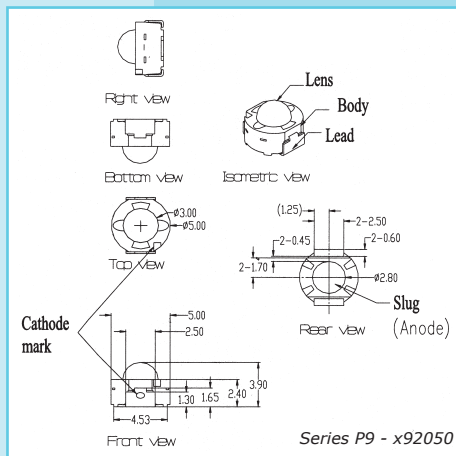
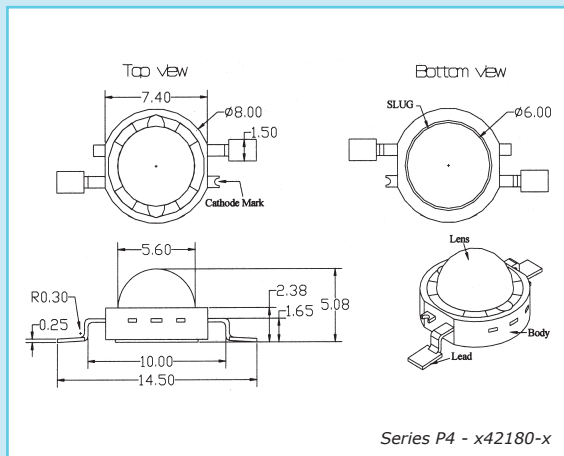


LEDs SEOUL SEMICONDUCTOR

		1-4	5-24	25-99	100+
F50381 SSC	Square Red/Green/Blue 6500K 78lm@350mA 130deg	17.439	15.626	15.068	13.952
A32182 SSC	1W (P3) Star Amber 38lm@350mA 130deg	3.749	3.359	3.239	2.999
R32182 SSC	1W (P3) Star Red 30lm@350mA 130deg	3.749	3.359	3.239	2.999
G32182 SSC	1W (P3) Star Green 48lm@350mA 130deg	5.624	5.039	4.859	4.499
B32182 SSC	1W (P3) Star Blue 11lm@350mA 130deg	4.686	4.199	4.049	3.749



		1-4	5-24	25-99	100+
W42182J-R SSC	4W (P4) Star Pure White 6500K 52lm@350mA 132deg	5.294	4.744	4.574	4.236
W42182-T SSC	4W (P4) Star Pure White 6500K 80lm@350mA 132deg	5.933	5.316	5.126	4.747
W42182-U1 SSC	4W (P4) Star Pure White 6500K 91-100lm@350mA 132deg	6.382	5.718	5.514	5.106
W42182-U2 SSC	4W (P4) Star Pure White 6500K 100-118.5lm@350mA 132deg	6.718	6.019	5.804	5.374
N42182L-R SSC	3.2W (P4) Star Warm White 3000K 52lm@350mA 120deg	5.594	5.012	4.833	4.475
N42182-S SSC	3.2W (P4) Star Warm White 3000K 62lm@350mA 120deg	6.621	5.932	5.720	5.297
W92050 SSC	0.5W (P9) Pure White 6500K 25lm@150mA 140deg	1.440	1.291	1.245	1.152
N92050 SSC	0.5W (P9) Warm White 3000K 15lm@150mA 140deg	1.440	1.291	1.245	1.152



Lenses for SSC LEDs

		1-4	5-24	25-99	100+
OPT SSC PL19806	Lens for SSC P3/P9, 10 deg., single	2.186	1.959	1.889	1.749
OPT SSC PL19825	Lens for SSC P3/P9, 25 deg., single	2.186	1.959	1.889	1.749
OPT SSC PL19840W	Lens for SSC P5, P3/P9, 40 deg., single	2.186	1.959	1.889	1.749
OPT SSC PL19840	Lens for SSC P3/P9, 15x90 deg. elliptic, single, 21.7mm	2.186	1.959	1.889	1.749
OPTCOL SSC KE198 White	Collimator for SSC P3, white	0.585	0.524	0.505	0.468
OPTCOL SSC KE198 Black	Collimator for SSC P3, black	0.585	0.524	0.505	0.468
OPTCOL SSC KE198RGB White	Collimator for SSC P5 RGB, white	0.585	0.524	0.505	0.468
OPT SSC PL02806	Lens for SSC P3/P4, 10 deg., single, 24.8mm	4.092	3.667	3.536	3.274
OPT SSC PL30706	Lens for SSC P3/P4, 10 deg., single, 34mm	4.709	4.219	4.069	3.767

Acriche Semiconductor EcoLight

		1-4	5-24	25-99	100+
AW3221 SSC	4W 220Vac WHITE module 6300K 195lm 20mA 110deg	16.038	14.835	14.033	13.365



One Choice for One World in Lighting Solution

Seoul Semiconductor (SSC) produces SMT and through hole type LEDs, displays and photo sensors. The SMT type LEDs product line is represented by the Z-Power series LEDs, Side View LEDs, Flash LEDs, Top LEDs and Chip LEDs.

The newest product from SSC is the **Acriche** designed for AC current-based operation. It is a semi-permanent and environmental safe semiconductor lighting that can be used in AC without additional device.



Acriche AC powered LEDs

Product	Description	Product	Description
AN22x0	2W/110VAC, emitter, warm white, 65lm, 110°	AN3220	4W/220VAC, emitter, warm white, 150lm, 110°
AN22x4	2W/110VAC, PCB, warm white, 65lm, 110°	AN3221/31	4W/220VAC, PCB, warm white, 150lm, 110°
AW22x0	2W/110VAC, emitter, cold white, 80lm, 110°	AW3220	4W/220VAC, emitter, cold white, 195lm, 110°
AW22x4	2W/110VAC, PCB, cold white, 80lm, 110°	AW3221/31	4W/220VAC, PCB, cold white, 195lm, 110°

SSC Z-Power series LEDs - designed for high current operation, high flux output and very good package thermal characteristics.

Dominant wavelength (nm) or color temp. (K)		Typical luminous or Radiant flux at rated current			
Color	nm (K)	P4		P7	P9
		T rank 4W	U rank 4W	11.8W	0.5W
		Rated (Nominal) / Maximum Forward Current, mA			
		350/1000		2800	150/200
Pure white	6500K	80lm	100lm	-	25lm
Natural white	4000K	65lm		900lm	21lm
Warm white	3000K	52(62)lm		-	20lm
Royal blue	460	360mW		-	-
Blue	460	22lm		-	-
Cyan	505	-		-	-
Amber	590	-		-	-
Red	625	48lm		-	-

P4 Star PCB - Aluminum based LED modules

ON STOCK P4 Star PCB ON STOCK	
Order code	Description
W42182-T SSC	1W (P4) Star Pure White
W42182-U SSC	1W (P4) Star Pure White
N42182-R SSC	1W (P4) Star Warm White
N42182-S SSC	1W (P4) Star Warm White



Comet Electronics single chip solutions for Power LED driving

Parameter	Value				Unit
	BD9001F	BD9778F/HFP	ZXLD1362ET5	ZXLD1360ET5	
Output current	2	2	1	1	A
Maximum power dissipation	0.69	0.69/5.5	1	1	W
Supply voltage V_{IN}	7 to 48	5 to 35	6 to 60	7 to 30	V
Output voltage	1 to V_{IN}	1 to V_{IN}	U_F	U_F	V
Reference voltage precision	±2%	±2%	50ppm/K	50ppm/K	-
Operating temperature	-40 to +95	-40 to +125	-40 to +125	-40 to +125	°C
Operating frequency	50 to 300	50 to 500	to 500	to 1000	kHz
Soft start delay	-	5	2	0.5	ms
Package	SOP8	SOP8/HRP7	TSOT23-5	TSOT23-5	-

SSC Z-Power P5-II offers full color LEDs containing Blue, Green and Red light in single high power package, with separate driving of every color.

P5-II series – full color F50360				
Dominant wavelength (nm) or color temp. (K)		Typical luminous or Radiant flux at rated current		
Color	nm	Blue	Green	Red
			0.875W	1.190W
White	-	105(78)lm (Red 220mA, Green 350mA, Blue 100mA)		
Blue	460nm	13lm (350mA)		
Green	527nm	57lm (350mA)		
Red	625nm	35lm (350mA)		
Maximum forward current I_{Fmax} (mA)		0.4A	0.4A	0.4A

FFlash LED - guaranteed for 2m distance shooting range. SSC's new flash light LED is the best choice for digital camera and mobile camera phone.

Top LED - small size, suitable for compact appliances / High luminous intensity / High reliability.

Chip LED - focused on cellular phone's keypad lights and many other applications. SSC's reliable chip LEDs provide internationally patented white color along with blue and full color.

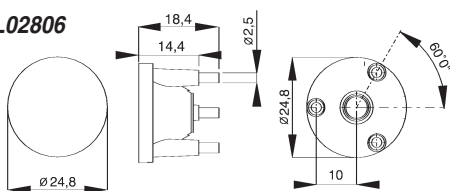
Through hole product line:



High Flux LEDs - The Heat Sink in the **High Flux LEDs** protects your lighting systems, therefore you can use more current than other products.

Lamp LED - SSC's **LED Lamps** are high brightness and weather-resistant LEDs, suitable for applications such as traffic signals, variable message signs and other.

OPT SSC PL02806



Comet Electronics offers secondary optics for use with **Z-Power LEDs** of **Seoul Semiconductor**.

Order code	Description
OPT SSC PL19806	Optics for SSC P3/P9, 10°, single
OPT SSC PL19825	Optics for SSC P3/P9, 25°, single
OPT SSC PL19840W	Optics for SSC P3/P9, 40°, single, elliptic
OPT SSC PL19840	Optics for SSC P3/P9, 40°, single, wide angle
OPT SSC PL02806	Optics for SSC P3/P4, 10°, single
OPTCOL SSC KE198 White	Collimator for SSC P3, white
OPTCOL SSC KE198 Black	Collimator for SSC P3, black
OPTCOL SSC KE198RGB White	Collimator for SSC P5 RGB, white

Indoor lighting solutions



Stage lighting



Typical applications for Z-Power LEDs

Traffic lights and signals



Architectural lighting



Car lights



Outdoor screens, information and advertisement boards

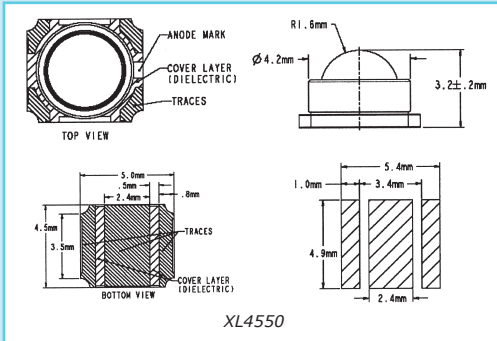


General purpose lighting

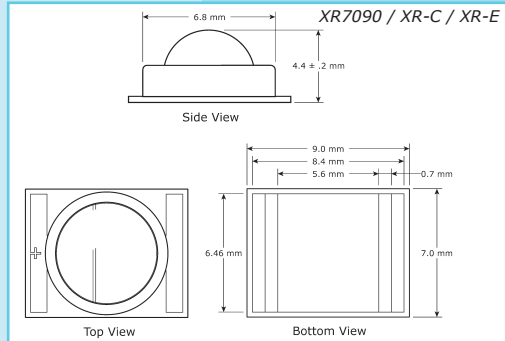


Power LEDs CREE

		1-4	5-24	25-99	100+
XREWHT-L1-0000-009E7	7x9mm Warm White 7A,7B,7C,7D, 80.6lm@350mA, 700mA max, 90deg	6.409	5.743	5.538	5.127
XREWHT-L1-0000-009F6	7x9mm Neutral White 5C,5D,6A,6B, 80.6lm@350mA, 700mA max, 90deg	5.697	5.105	4.922	4.558
XREWHT-L1-0000-00C01	7x9mm Cool White all CCT bins, 100lm@350mA, 1000mA max, 90deg	5.792	5.190	5.004	4.634
XREWHT-L1-0000-00C02	7x9mm Cool White WC,WD,Wf,WH, 100lm@350mA, 1000mA max, 90deg	6.077	5.445	5.250	4.862
XREWHT-L1-0000-00D01	7x9mm Cool White all CCT bins, 107lm@350mA, 1000mA max, 90deg	6.884	6.168	5.948	5.507
XREGRN-L1-0000-00P01	7x9mm Green 520-535nm, 67.2lm@350mA, 700mA max, 100deg	4.700	4.211	4.061	3.760
XREBLU-L1-0000-00K01	7x9mm Blue 465-485nm, 30.6lm@350mA, 1000mA max, 100deg	5.982	5.360	5.168	4.786
XREROY-L1-0000-00901	7x9mm Royal Blue 450-465nm, 300mW@350mA, 1000mA max, 100deg	5.863	5.253	5.066	4.691
XRCWHT-L1-0000-003E5	7x9mm Neutral White 5C,5D,6A,6B, 45.7lm@350mA, 500mA max, 90deg	3.026	2.711	2.614	2.421
XRCWHT-L1-0000-003E7	7x9mm Warm White 7A,7B,7C,7D, 45.7lm@350mA, 500mA max, 90deg	3.172	2.843	2.741	2.538
XRCRED-L1-0000-00K01	7x9mm Red 620-630nm, 30.6lm@350mA, 500mA max, 90deg	2.782	2.493	2.404	2.226
XRCRED-L1-0000-00M01	7x9mm Red 620-630nm, 39.8lm@350mA, 500mA max, 90deg	3.514	3.149	3.036	2.811
XPEWHT-L1-0000-00AE4	3.45x3.45mm Neutral White 4A,4B,4C,4D, 87.4lm@350mA, 700mA max, 115deg	5.402	4.841	4.668	4.322
XPEWHT-L1-0000-00C01	3.45x3.45mm Cool White all CCT bins, 100lm@350mA, 700mA max, 115deg	5.648	5.061	4.880	4.518
XPCWHT-L1-0000-008E4	3.45x3.45mm Neutral White 4A,4B,4C,4D, 73.9lm@350mA, 500mA max, 110deg	3.787	3.393	3.272	3.029
XPCWHT-L1-0000-00A01	3.45x3.45mm Cool White all CCT bins, 87.4lm@350mA, 500mA max, 110deg	4.292	3.845	3.708	3.433

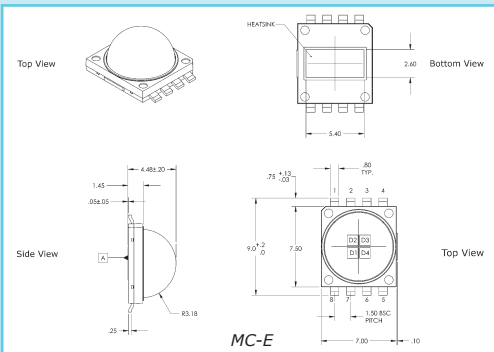


XL4550

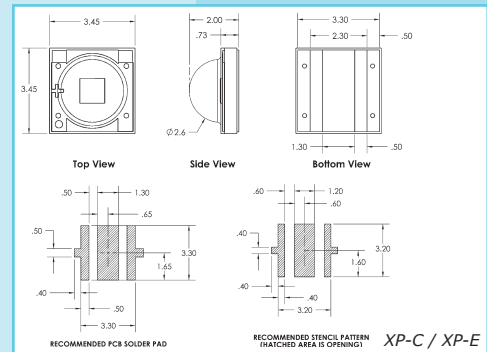


XR7090 / XR-C / XR-E

		1-4	5-24	25-99	100+
XL4550BLU-L100-B3-C-0001	0.5W, Blue, L100, 465-470nm, 4.8-6.3lm, 125mA	1.735	1.555	1.499	1.388
XL4550BLU-L100-B4-C-0001	0.5W, Blue, L100, 470-475nm, 4.8-6.3lm, 125mA	1.735	1.555	1.499	1.388
XL4550BLU-L100-B4-D-0001	0.5W, Blue, L100, 470-475nm, 6.3-8.2lm, 125mA	1.799	1.612	1.555	1.439
XL4550GRN-L100-G3-F-0001	0.5W, Green, L100, 525-530nm, 10.7-13.9lm, 125mA	1.735	1.555	1.499	1.388
XL4550GRN-L100-G4-F-0001	0.5W, Green, L100, 530-535nm, 10.7-13.9lm, 125mA	1.735	1.555	1.499	1.388
XL4550GRN-L100-G2-G-0001	0.5W, Green, L100, 520-525nm, 13.9-18.1lm, 125mA	1.799	1.612	1.555	1.439
XL4550GRN-L100-G4-G-0001	0.5W, Green, L100, 530-535nm, 13.9-18.1lm, 125mA	1.735	1.555	1.499	1.388
XL4550GRN-L100-G2-H-0001	0.5W, Green, L100, 520-525nm, 18.1-23.5lm, 125mA	1.799	1.612	1.555	1.439
XL4550GRN-L100-G3-H-0001	0.5W, Green, L100, 525-530nm, 18.1-23.5lm, 125mA	1.799	1.612	1.555	1.439
XL4550GRN-L100-G4-H-0001	0.5W, Green, L100, 530-535nm, 18.1-23.5lm, 125mA	1.799	1.612	1.555	1.439
XL4550RED-L100-0001	0.5W, Red, L100, 620-635nm, 6.3-8.2@125mA	1.514	1.357	1.308	1.211



MC-E



XP-C / XP-E

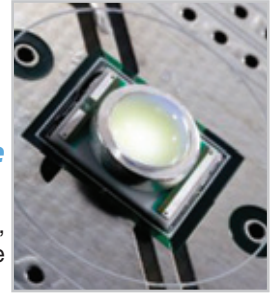
Lenses for CREE LEDs

		1-4	5-24	25-99	100+
OPT XLSL-7090-247	Lens for CREE XRE / XRC 8 deg	1.020	0.946	0.880	0.823
OPT XLSL-7090-144C	Lens for CREE XR7090 Color 10 deg; white 19 deg	0.607	0.563	0.524	0.490
OPT XLSL-7090-144E	Lens for CREE XR7090 Color 10 deg; white 18 deg	0.607	0.563	0.524	0.490
OPT XLSL-LBR0023A	Lens for CREE Xlamp® 30deg	1.020	0.946	0.880	0.823
OPT XLSL-LBR0024A	Lens for CREE Xlamp® 40deg	1.020	0.946	0.880	0.823
OPTX-1-0106	Spot base module ±6° for CREE 7090	3.599	3.439	3.310	3.214
OPTX-1-D1F8	Diffuser sub-lens ±8° for CREE 7090	1.056	1.009	0.971	0.943
OPTX-1-016S	Wide sub-lens ±16° for CREE 7090	1.056	1.009	0.971	0.943
OPTX-3-008	Tripple spot base module ±8° for CREE 7090	7.271	6.946	6.687	6.492
OPTX-3-014S	Tripple wide sub-lens ±14° for CREE 7090	2.856	2.728	2.626	2.550
OPTX-3-MICRO	Tripple MICRO sub-lens for CREE 7090	2.856	2.728	2.626	2.550

Power LED lamps from CREE - 0.5W, 1W and 3W

It is not a question of whether LEDs can replace the traditional lamps, but when!

XLamp high brightness LEDs are available in 0.5W, 1W and 3W versions, all offering precise binning options, a full range of colors and Cree's unique electrically neutral thermal path and SMD packages.



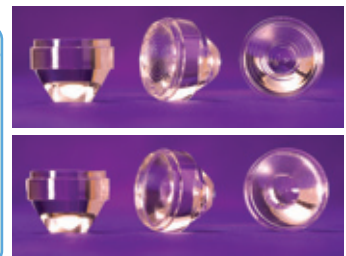
XLamp parameters									
Color	Dominant wavelength (nm) or color temperature (K)		Typical Luminous or Radiant flux at rated current						
	Min.	Max.	XLamp™ 4550	XLamp™ 7090					
				XR Series*	XR-E Series	XR-C Series	MC-E Series ^{NEW}	XP-C Series ^{NEW}	XP-E Series ^{NEW}
Pure white	5000K	10000K	-	51lm	107lm	80.6lm	430lm	87.4lm	100lm
Natural white	3700K	5000K	-	43lm	93.9lm	56.8lm	370lm	73.9lm	87.4lm
Warm white	2600K	3700K	-	37lm	80.6lm	51.7lm	280lm	62lm	80.6lm
Royal blue	450nm	465nm	65mW	255mW	425mW	300mW	-	-	-
Blue	465nm	485nm	4.5lm	15lm	30.6lm	18.1lm	-	-	-
Cyan	500nm	510nm	-	-	-	-	-	-	-
Green	520nm	535nm	18lm	52lm	67.2lm	51.7lm	-	-	-
Amber	585nm	595nm	8.4lm	42lm	-	39.8lm	-	-	-
Red-Orange	610nm	620nm	-	49lm	-	39.8lm	-	-	-
Red	620nm	635nm	12lm	40lm	-	39.8lm	-	-	-
Maximum forward current, I _{Fmax}	Royal Blue, Blue, Cyan, Green, Red-Orange, White > 4444K		125mA	700mA	700/1000mA	500/700mA	700mA	500mA	700mA
	Amber, White < 4444K		350mA						
Maximum forward voltage at I _{Fmax} (royal blue, blue, cyan, green, white)			4.0V	4.0V	3.5/3.7V	3.6V	3.9V	3.5V	3.4V
Maximum forward voltage at I _{Fmax} (amber, red-orange, red)			3.0V	3.0V		2.5V		-	-
Maximum Reverse Voltage			5.0V	5.0V	5.0V	5.0V	5.0V	5.0V	5.0V
Viewing angle			100 deg.	100 deg.	90/100 deg.	90 deg.	110 deg.	110 deg.	115 deg.
Operating temperature range			-20 ÷ 85°C	-40 ÷ 85°C	-40 ÷ 85°C	-40 ÷ 85°C	TBD	TBD	TBD
Thermal Resistance, junction to solder point	royal blue, blue, cyan, green, white		35°C/W	8°C/W	8°C/W	12°C/W	3°C/W	12°C/W	9°C/W
	amber, red-orange, red			15°C/W		15°C/W			
Maximum junction temperature	royal blue, blue, cyan, green, white		125°C	145°C	150°C	150°C	TBD	150°C	150°C
	amber, red-orange, red								
Temperature coefficient of voltage, mV/°C			-3.2 to -2.8	-4.0	-4.0 / -2.3	-4.0	-4.5	-3.2	
ESD Classification (HBM per Mil-Std-883D)			Class 2	Class 2	Class 2	Class 2	Class 2	Class 2	

*Till stock is exhausted.

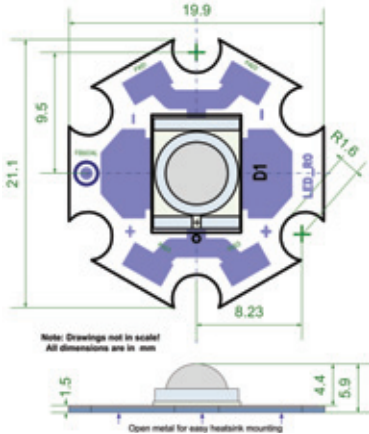
Optic lenses

The optic modules and sub-lenses enhance the light output of your system and allow different optic characteristics to be achieved for any specific application.

Order code	Description
OPT XLSL-7090-247	Lens for CREE XRE / XRC 8°
OPT XLSL-7090-144C	Lens for CREE XR7090 Color 10°; white 19°
OPT XLSL-7090-144E	Lens for CREE XR7090 Color 10°; white 18°
OPTX-3-MICRO	Tripple MICRO sub-lens for CREE 7090
OPTX-3-014S	Tripple wide sub-lens ±14° for CREE 7090
OPTX-3-008	Tripple spot base module ±8° for CREE 7090
OPTX-1-016S	Wide sub-lens ±16° for CREE 7090
OPTX-1-DIF8	Diffuser sub-lens ±8° for CREE 7090
OPTX-1-006	Spot base module ±6° for CREE 7090



Power LED module „Star“



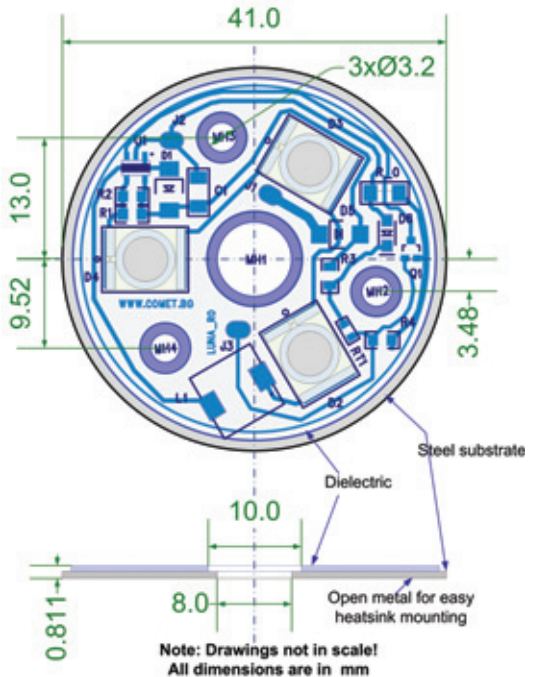
Power LED module CREE R03Z

- ◆ Steel base with excellent mechanical strength and small temperature resistance;
- ◆ Easy heatsink mounting;
- ◆ Three 1-watt LEDs XLamp™ ;
- ◆ Integrated switching driver ZXLD1360ET5;
- ◆ Integrated thermistor for temperature compensation;
- ◆ Option for external dimming with PWM;
- ◆ Option for metal body (CREE SPOT);
- ◆ Order codes:

CREE R03Z “color” – LED module;
CREE SPOT “color” – Mounted in metal body.

Bill of materials

Quantity	Designator	Order code
1	U1	ZXLD1360ET5
1	D1	1N5819(SS14) SMD (SMA)
3	D2, D3, D4	XLamp™
1	Q1	2SK3018T ROHM SMD
1	D6	ZD6.2V 0.2W ROHM SMD
1	D5	F7 SMD (SMA)
1	L1	CL100uH SD73
1	C1	C1206 4.7uF 50V Y5V
1	RT1	10K NTC
1	R1	R0805 0.31R 5%
1	R3	R0805 750R 1%
1	R4	R0805 390R 1%



More information about the switching controller ZXLD1360ET5, you can find on our web site www.comet.bg.

Comet Electronics' Power LED modules CREE R03Z xxx and CREE SPOT xxx are available in whole color range of CREE products.

Comet Electronics single chip solutions for Power LED driving

Parameter	Value				Unit
	BD9001F	BD9778F/HFP	ZXLD1362ET5	ZXLD1360ET5	
Output current	2	2	1	1	A
Maximum power dissipation	0.69	0.69/5.5	1	1	W
Supply voltage V_{IN}	7 to 48	5 to 35	6 to 60	7 to 30	V
Output voltage	1 to V_{IN}	1 to V_{IN}	U_F	U_F	V
Reference voltage precision	±2%	±2%	50ppm/K	50ppm/K	-
Operating temperature	-40 to +95	-40 to +125	-40 to +125	-40 to +125	°C
Operating frequency	50 to 300	50 to 500	to 500	to 1000	kHz
Soft start delay	-	5	2	0.5	ms
Package	SOP8	SOP8/HRP7	TSOT23-5	TSOT23-5	-

Spot lights and metal core PCBs for CREE LEDs

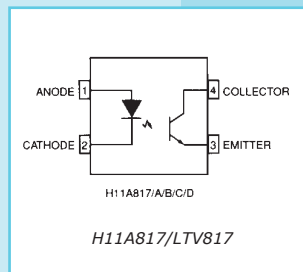
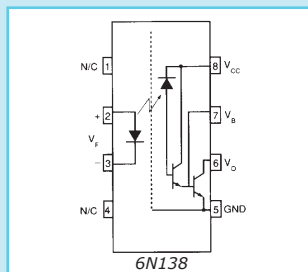
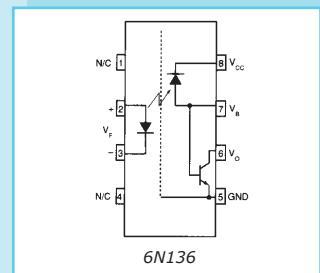
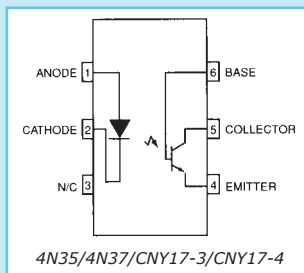
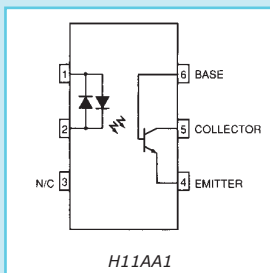
		1-4	5-24	25-99	100+
CREE R03Z AMBER	3xXL7090 Amber, VDC IN = 14 - 30V	25.032	23.914	23.020	22.350
CREE R03Z BLUE	3xXL7090 Blue, VDC IN = 14 - 30V	28.961	27.668	26.634	25.858
CREE R03Z CYAN	3xXL7090 Cyan, VDC IN = 14 - 30V	27.330	26.110	25.134	24.401
CREE R03Z GREEN	3xXL7090 Green, VDC IN = 14 - 30V	30.193	28.846	27.767	26.958
CREE R03Z RED	3xXL7090 Red, VDC IN = 14 - 30V	25.032	23.914	23.020	22.350
CREE R03Z ROYBLUE	3xXL7090 Royal Blue, VDC IN = 14 - 30V	30.510	29.148	28.058	27.241
CREE R03Z WHITE	3xXL7090 White, VDC IN = 14 - 30V	30.572	29.208	28.116	27.297
XREWHT-009F6 STAR	Neutral White 80.6lm@350mA, Star PCB, aluminium	6.013	5.707	5.401	5.095
XREWHT-00C01 STAR	Cool White 100lm@350mA, Star PCB, aluminium	6.696	6.355	6.015	5.674
XRCWHT-003E5 STAR	Neutral White 45.7lm@350mA, Star PCB, aluminium	4.209	3.995	3.781	3.567
XRCWHT-003E7 STAR	Warm White 45.7lm@350mA, Star PCB, aluminium	4.209	3.995	3.781	3.567
XR7090WT-U1 STAR	Cool White 67.2lm@350mA, Star PCB, aluminium	5.543	5.261	4.979	4.697
CREE SPOT AMBER	SPOT 3xXL7090 Amber, VDC IN = 14 - 30V	36.529	34.899	33.594	32.616
CREE SPOT BLUE	SPOT 3xXL7090 Blue, VDC IN = 14 - 30V	40.267	38.470	37.031	35.953
CREE SPOT CYAN	SPOT 3xXL7090 Cyan, VDC IN = 14 - 30V	38.348	36.637	35.267	34.240
CREE SPOT GREEN	SPOT 3xXL7090 Green, VDC IN = 14 - 30V	41.212	39.372	37.901	36.797
CREE SPOT RED	SPOT 3xXL7090 Red, VDC IN = 14 - 30V	36.529	34.899	33.594	32.616
CREE SPOT ROYBLUE	SPOT 3xXL7090 Royal Blue, VDC IN = 14 - 30V	42.008	40.133	38.632	37.507
CREE SPOT WHITE	SPOT 3xXL7090 White, VDC IN = 14 - 30V	42.070	40.192	38.690	37.563

IR Devices

		1-9	10-99	100-499	500+
L-53P3BT	5mm 940nm PHOTOTRANSISTOR	0.104	0.090	0.084	0.074
L-53F3BT	5mm 940nm 3.7-7.2mW INFRARED LED	0.104	0.090	0.084	0.074
L-53SF6C	5mm 880nm IR LED	0.428	0.370	0.346	0.306
L-34SF6C	3mm 880nm IR LED	0.428	0.370	0.346	0.306
L-932P3BT	3mm 940 nm PHOTOTRANSISTOR	0.104	0.090	0.084	0.074
L-934F3BT	3mm 940nm 2.6-3.6mcd/10mA IR LED	0.104	0.090	0.084	0.074
L-932P3C	3mm 940 nm PHOTOTRANSISTORS	0.104	0.090	0.084	0.074
L-934F3C	3mm 940nm 2.6-3.6mcd/10mA IR LED	0.104	0.090	0.084	0.074
KM-4457F3C	4.45x5.72mm 940nm INFRARED LED	0.151	0.131	0.122	0.108
L-610MP4BT/BD	5x5mm 940nm NPN PHOTOTRANSISTOR	0.239	0.206	0.193	0.170
KP-2012P3C	2.0x1.2mm (0805) 940nm 2.6-3.6mW phototr	0.101	0.087	0.081	0.072
KM2520F3C03	2.5x2.0mm 940nm INFRARED LED	0.122	0.106	0.099	0.087
RPT34PB3F ROHM	3mm 800nm 32V 30mA Phototr.(compl SIR34ST3F)	0.136	0.118	0.110	0.097
SIR34ST3F ROHM	3mm 950nm 8mW IR LED (compl. RPT34PB3F)	0.117	0.101	0.095	0.084
RPM7138CBR-S ROHM	IR receiver,37,9 kHz,distance15 m,Vol 0.5V Voh 4.5V	0.712	0.615	0.575	0.508
RPM7140 ROHM	IR receiver,40 kHz,distance15 m,Vol 0.5V Voh 4.5V	0.428	0.370	0.346	0.306
RPM872-E2A ROHM	IrDA Module, 2.4-115.2 kbps (SIR), SMD	0.428	0.370	0.346	0.306
RPM972-H14E3A ROHM	IrDA Module, 4Mbps (FIR), Side view, SMD	0.428	0.370	0.346	0.306
MCP2120-I/SL	Infrared Encoder/Decoder	1.716	1.558	1.399	1.320
MCP2140-I/P	9600 baud IrDA protocol handler and bit encoder/decoder	2.015	1.829	1.643	1.550

Opto-couplers with transistor output

		1-24	25-99	100-499	500+
H11AA1	DIL6 20% 30V 5.33V DIL6 AC Input	0.405	0.367	0.312	0.289
H11G1	DIL6 1000% 100V 7.5kV 5/5uS DIL6	0.587	0.532	0.453	0.419
4N35 (LTV4N35)	DIL6 100% 70/30V 3.5kV 5/5uS DIL6	0.166	0.150	0.128	0.118
4N35.S-MOT SMD	DIL6 100% 70/30V 3.5kV 5/5uS SMD	0.244	0.221	0.188	0.174
4N37	DIL6 100% 70/30V 2.5kV 5/5uS DIL6	0.197	0.178	0.152	0.140
6N136	DIL8 25% 0.2/0.6uS 2MHz DIL8	0.595	0.540	0.459	0.425
6N137	DIL8 5mA in 8TTL out 10Mbit/s 2.5kV DIL8	0.595	0.540	0.459	0.425



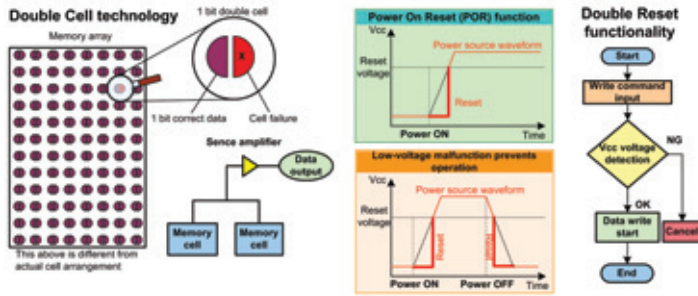


**Excellence in electronic parts
manufacturing**

ROHM is a leading Japan manufacturer of electronic parts, including resistors, capacitors, discrete semiconductors, integrated circuits and opto devices for the electronic industry.

Double Cell Serial EEPROM Memories for double data protection

ROHM offers extra safe Serial EEPROM memories with Double Cell technology for protecting from



data losses during operation. With doubling every cell from EEPROM memory array, ROHM ensures that if a bit error occurs in one cell, the data will be retained in the secondary cell. Extra protection is added by Double Reset functionality which protects from data losses during power up and down.

Three types of serial EEPROMs are available from **ROHM**, with

standard MICROWIRE, SPI or I²C serial bus.

Order code	Density	Bit configuration	Power supply	Endurance	Temperature range	Package
	Words	w x bits	V	ER/WR	°C	
Double Cell EEPROM I²C BUS						
24Lxx BR24Lxx-W ROHM	2K to 64K	256x8 to 8Kx8	1.8 ÷ 5.5	1M	-40°C ÷ 85°C	DIP8
24Lxx BR24LxxF-WE2 ROHM SMD	2K to 64K	256x8 to 8Kx8	1.8 ÷ 5.5	1M	-40°C ÷ 85°C	SO8
Double Cell EEPROM MICROWIRE BUS						
93Lxx BR93Lxx-W	1K to 4K	64x16 to 256X8	1.8 ÷ 5.5	1M	-40°C ÷ 85°C	DIP8
93Lxx BR93LxxF-WE2 SMD	1K to 4K	64x16 to 256X8	1.8 ÷ 5.5	1M	-40°C ÷ 85°C	SO8

IrDA Infrared communication modules

ROHM offers ready to install IrDA modules with integrated Infrared LED, PIN photodiode and signal circuits, compatible with IrDA SIR (Low power) standard.

RPM882 Internal circuits		
Pin №	Terminal	Function
1	GND	Ground
2	VIO	Supply voltage for I/O pins (TX-RC, PWDOWN, RXD, TXD)
3	V _{CC}	Power supply terminal
4	TX-RC	RC (Remote Control) Transmitting Data Input Terminal
5	PWDOWN / LED Mode	Power-down Control and LED Intensity switching Terminal
6	RXD	Receiving Data Output Terminal
7	TXD	Transmitting Data Input Terminal
8	LEDVcc	LED ANODE Terminal

Note : Shield case must be connected to ground

IrDA Infrared communication modules offered from ROHM and Comet Electronics

Order code	Application format	Data rate (bps)	Feature
RPM870/1/2 (-H1x)	SIR Low power	2.4k to 115.2kbps	Adjustable LED intensity (871 only)
RPM873	SIR Low power	2.4k to 115.2kbps	SMD mounting
RPM882-H1x	SIR Low power	2.4k to 115.2kbps	Ir RC control function
RPM841-H1x1 ^{NEW}	SIR Low power	2.4k to 115.2kbps	Low profile IrDA
RPM960	SIR/MIR Low power	9.6k to 1.152Mbps	Adjustable LED intensity
RPM922 ^{NEW}	SIR/MIR Low power	9.6k to 1.152Mbps	Low profile IrDA
RPM97x ^{NEW} series	SIR/MIR/FIR Low power	9.6k to 4Mbps	Adjustable LED intensity



ROHM and Comet Electronics offer you high power flexible switching regulators with output current up to 4A, suitable for powering electronic modules like printer modules, scanners, GSM modules. Recommended for powering of **CINTERION (SIEMENS)** GSM modules.

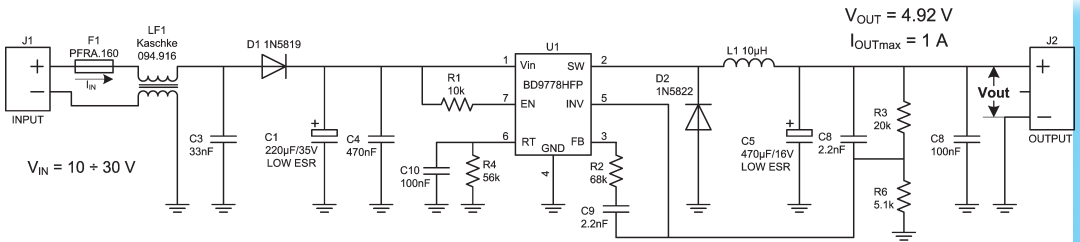
Product Line							
Order code	Supply voltage, (V)	Output current, (A)	Output voltage, (V)	Operating temperature, (°C)	Operating frequency, (kHz)	Package	RoHS
BD9001F	7 to 48	2.0	1 to V_{IN}	-40 ÷ 95	50 to 300	SOP8	Yes
BD9778F	7 to 35	2.0	1 to V_{IN}	-40 ÷ 125	50 to 500	SOP8	Yes
BD9778HFP	7 to 35	2.0	1 to V_{IN}	-40 ÷ 125	50 to 500	HRP7	Yes
BD9781HFP	7 to 35	4.0	1 to V_{IN}	-40 ÷ 125	50 to 500	HRP7	Yes

BD9778HFP switching regulator with high output current

- High maximum output current (2A);
- Wide input voltage range;
- On chip switching MOSFET;
- Adjustable output voltage up to V_{IN} ;
- Selectable operating frequency up to 500kHz;
- Wide operating temperature range;
- Over current protected output;
- Built in temperature shut down circuit;
- Enable pin for external mode control;
- 5.5W SMD package HRP7.

Parameter	Value	Unit
Output current	2	A
Maximum power dissipation	5.5	W
Supply voltage V_{IN}	5 to 35	V
Output voltage	1 to V_{IN}	V
Reference voltage precision	±2	%
Operating temperature	-40 to +125	°C
Operating frequency	50 to 500	kHz
Soft start	5	ms
Oscillation mode	Self oscillation	
Package	HRP7	

Application schematic for BD9778HFP - Standard 5V/1A DC/DC step-down converter



Low cost, small size MOSFET Transistors SMD Type

“Small”, “thin” and “high-power” are the keywords in Rohm’s versatile package deployment to cover the vast area of market demands. Field-effect transistor MOSFET 2.5V and 4V drive type are available, with superior features of high-speed switching and low On-Resistance.

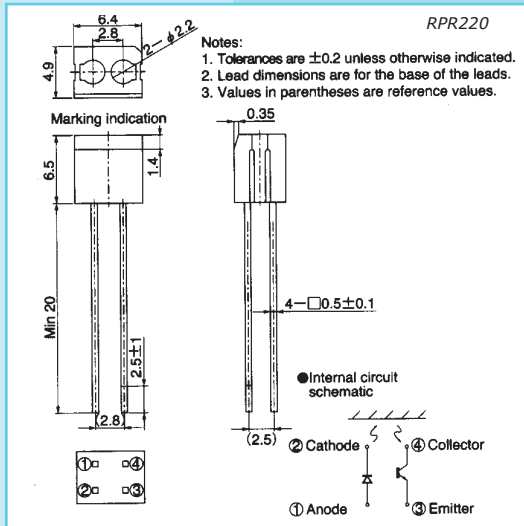
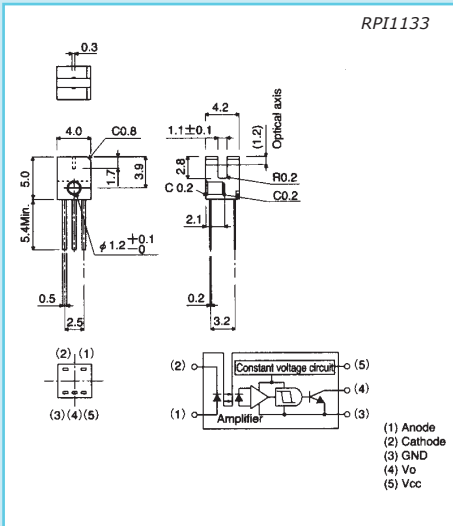
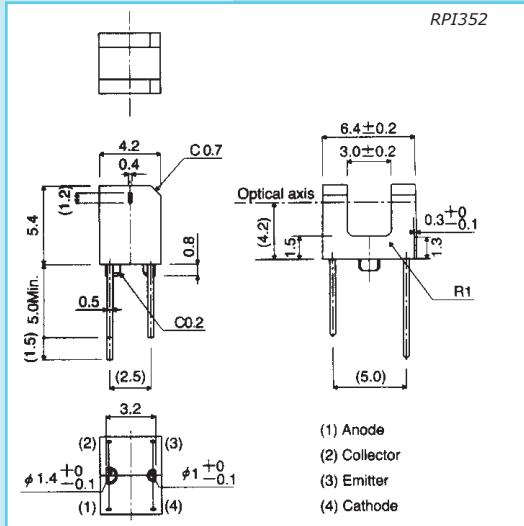
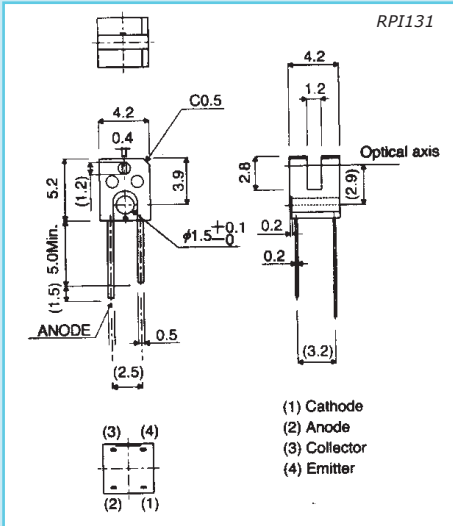
Order code	Type	Drain source voltage	Gate source threshold voltage	Drain current	Total power dissipation	Static drain-source on resistance @ V_{GS}	Package
		$V_{DS(s)}$ (V)	$V_{GS(th)}$ (V)	I_D (A)	P_D (W)	$R_{DS(on)}$, Ω/V_{GS} (V)	
2SK3018T ROHM SMD	NMOS	30	0.8 - 1.5	0.1	0.2	5.0/4	SOT323
2SK3019TL ROHM SMD	NMOS	30	0.8 - 1.5	0.1	0.15	7/2.5	SOT416
2SK3065 ROHM SMD	NMOS	60	0.8 - 1.5	2	0.5	0.25/4	SOT89
RK7002 ROHM SMD	NMOS	60	1.0 - 2.5	0.115	0.225	7.5/5	SOT23
UM5K1NTR ROHM SMD (Dual transistor)	NMOS	30	0.8 - 1.5	0.1	0.15	5/4	SOT353

Opto-couplers with transistor output

			1-24	25-99	100-499	500+
6N138	DIL8	2000% DARLINGTON 7V 2.5kV DIL8	0.764	0.693	0.590	0.546
CNY17-3	DIL6	100-200% 70/70V 7.5kV 6/5.5uS DIL6	0.215	0.195	0.166	0.154
CNY17-4	DIL6	160-320% 70/70V 7.5kV 6/5.5uS DIL6	0.238	0.216	0.184	0.170
CNY17-4.S SMD		160-320% 70/70V 7.5kV 6/5.5uS SMD	0.299	0.271	0.231	0.213
			1-9	10-99	100-999	1000+
LTV817	DIL4	50-600% 35V 5kV 4/3uS DIL4	0.143	0.118	0.109	0.093
LTV817S SMD		50-600% 35V 5kV 4/3uS SMD	0.164	0.136	0.125	0.106
LTV817CS SMD		200-400% 35V 5kV 4/3uS SMD	0.196	0.162	0.149	0.127
TLP181GB SMD		100-600% 80V 3750V 3/3uS SMD	0.235	0.194	0.179	0.151
KB817C	DIL4	200-400% 35V 5kV 4/3uS DIL4	0.197	0.163	0.150	0.127
KB847	DIL16	50-600% 35V 5kV 4/3uS DIL16	1.147	0.947	0.873	0.740

Opto-couplers with triac output

			1-24	25-99	100-499	500+
MOC3023		I LED 5mA 400V 7.5kV without synchr.	0.342	0.310	0.264	0.244
MOC3041		I LED 15mA 400V 7.5kV with synchr.	0.551	0.500	0.425	0.394
MOC3043		I LED 5mA 400V 5.0kV with synchr.	0.563	0.511	0.435	0.402
TLP3043		I LED 5mA 400V 5.0kV with synchr.	0.551	0.500	0.425	0.394
MOC3063		I LED 5mA 600V 7.5kV with synchr.	0.579	0.525	0.446	0.413
MOC3063 SMD		I LED 5mA 600V 7.5kV with synchr.	0.617	0.560	0.476	0.441
TLP3063		I LED 5mA 600V 5.0kV with synchr.	0.551	0.500	0.425	0.394
MOC3083		I LED 5mA 800V 7.5kV with synchr.	0.745	0.676	0.575	0.532



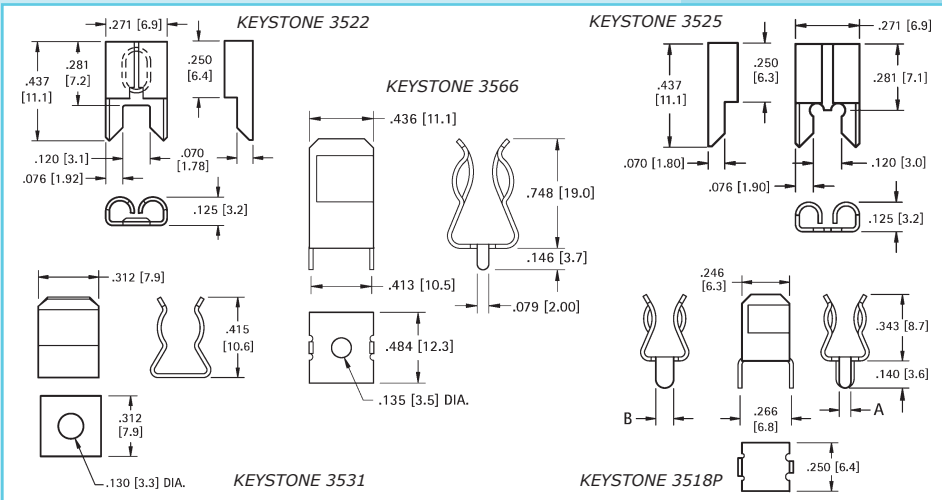
Opto-couplers with air gap

		1-24	25-99	100-499	500+
H21A1	5% 30V 60mA 3.15mm -55+100°C	0.850	0.756	0.674	0.630
RPI-131 ROHM	3.5% 30V 50mA 10/10uS 1.2mm -25+85°C	0.356	0.316	0.282	0.264
RPI-352 ROHM	1.0% 30V 50mA 10/10uS 3.0mm -25+85°C	0.332	0.295	0.263	0.246
RPI-574 ROHM	2.5% 30V 50mA10/10uS 5mm -25+85°C	0.315	0.280	0.250	0.233
RPI-1133 ROHM	w trigger Vcc 2-7V Io 10mA 1.1mm -20+60°C	0.88	0.782	0.697	0.652
RPI-1391 ROHM	w trigger Vcc 4-17V Io 20mA 4.0mm -20+85°C	0.900	0.800	0.713	0.666
RPR-220 ROHM	3% 30V 50mA 10/10uS -25+85°C reflective d=6mm	0.805	0.715	0.638	0.596

Fuseholders

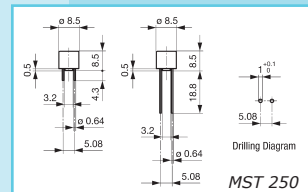
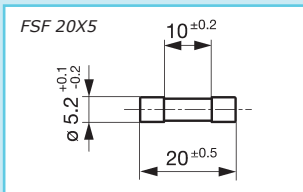
		1-9	10-99	100-499	500+
PC1215	Fuse holder for fuse 5x20mm	0.430	0.390	0.332	0.307
FUSE HOLDER PCB P15	Fuse holder for fuse 5x20mm PCB P15mm	0.166	0.150	0.128	0.118
KEYSTONE 3518P	Fuse clip for fuse 5x20mm PCB	0.146	0.132	0.112	0.104
KEYSTONE 3522	PC auto fuse clip	0.125	0.113	0.096	0.089
KEYSTONE 3525	PC auto fuse clip	0.138	0.125	0.106	0.098
KEYSTONE 3531	6.3mm Fuse clip	0.106	0.097	0.082	0.076
KEYSTONE 3566	13/32 PC Fuse clip	0.320	0.290	0.247	0.229

Information about offered power and main connectors and power entry modules of plugs, switch and fuse receptacles is available in Section "Audio, Video, Power & Main Connectors" on page 127



Fast (F) Fuses FSF 20X5 SCHURTER

		1-4	5-24	25-99	100+
FSF 0.5A 20X5 SCHURTER	Fast fuse 0.5A F 5X20mm	0.091	0.081	0.072	0.067
FSF 0.63A 20X5 SCHURTER	Fast fuse 0.63A F 5X20mm	0.091	0.081	0.072	0.067
FSF 1A 20X5 SCHURTER	Fast fuse 1A F 5X20mm	0.091	0.081	0.072	0.067
FSF 2A 20X5 SCHURTER	Fast fuse 2A F 5X20mm	0.091	0.081	0.072	0.067
FSF 2.5A 20X5 SCHURTER	Fast fuse 2.5A F 5X20mm	0.091	0.081	0.072	0.067
FSF 3.15A 20X5 SCHURTER	Fast fuse 3.15A F 5X20mm	0.091	0.081	0.072	0.067
FSF 5A 20X5 SCHURTER	Fast fuse 5A F 5X20mm	0.091	0.081	0.072	0.067



Time-lag (T) cylindr. fuses 8.5X8.5 with radial terminals MST SCHURTER

		1-4	5-24	25-99	100+
MST250 0.315A SCHURTER	Time-lag fuse 0.315A T radial terminals 4.3mm	0.235	0.209	0.186	0.174
MST250 0.5A SCHURTER	Time-lag fuse 0.5A T radial terminals 4.3mm	0.235	0.209	0.186	0.174
MST250 1A SCHURTER	Time-lag fuse 1A T radial terminals 4.3mm	0.235	0.209	0.186	0.174
MST250 2A SCHURTER	Time-lag fuse 2A T radial terminals 4.3mm	0.235	0.209	0.186	0.174
MST250 2.5A SCHURTER	Time-lag fuse 2.5A T radial terminals 4.3mm	0.235	0.209	0.186	0.174
MST250 3.15A SCHURTER	Time-lag fuse 3.15A T radial terminals 4.3mm	0.235	0.209	0.186	0.174

IC protectors ROHM

		1-4	5-24	25-99	100-499	500+
ICP-N15T104 ROHM	IC protector 0.6A; Rint. 0.135ohm	0.162	0.139	0.125	0.113	0.1044
ICP-N20T104 ROHM	IC protector 0.8A; Rint. 0.100ohm	0.162	0.139	0.125	0.113	0.1044

Electromechanical components



Fuses and fuseholders

SCHURTER's broad range of fuses includes miniature and sub-miniature resettable, non-resettable, Telecom and Fuseholders for panel, through-hole and SMT mounting.

Type	Nominal voltage	Nominal current	Breakdown current/voltage
PFMF – SMD, resettable	13.2 ÷ 60V	0.1 ÷ 0.75A	40A/60V ÷ 100A/13.2V
PFRA – through hole, resettable	16 ÷ 60V	0.1 ÷ 11A	40A/60V
MST250 – through hole, resettable	250V	0.05 ÷ 6.3A	35A



Fuseholders for panel mounting



Product group: Fuseholders

Fuseholders for PCB mounting



Fuseholders Open Type



Product group: Fuseholder blocks & Clips

Parameters

Voltage:
250 - 600V

Current: up to 50A

Fuse dimensions:
10.3 x 38mm
4.7 x 16mm
5 x 20mm
6.3 x 32mm

Circuit breakers for Equipment

Thermal (T-Line, TA45) and thermal-magnetic (TM12, AS168X) circuit breakers for equipment are available from Schurter company. Thermal CBEs have good simulation of the thermal behaviour of the protected component, capability of coping with start-up and inrush currents, suitability for a wide range of frequencies, simplicity/reliability and favorable price. Thermal-magnetic CBEs have two releases to achieve automatic interruption of an overcurrent – a thermo-bimetal for overload current and an electro-magnet for short circuit current.



Thermal



Voltage: up to 400/60V AC/DC

Current: up to 30A

Product group: Thermal

Thermal-magnetic



Voltage: up to 480/360V AC/DC

Current: up to 52A

Product group: Thermal-magnetic

Undervoltage Protection



Voltage: up to 400/60V AC/DC

Current: up to 20A

Product group: Undervoltage Protection

Buttons and keypads

SCHURTER offers a wide variety of vandal proof and membrane switches and key pads, metal switches with or without illumination for panel or PCB mounting.



Metal line switches and Sensor switches

Mechanical switches with or without illumination
Series: MCS 18/19/22/30
SSM 30 MSM 16/19/22/30

Product group: Metal Line Switches



Parameters:

Voltage:
24 - 250V

Current:
up to 10A

Piezo switches without mechanical parts
Series: PSE M
16/19/22/24/27/30

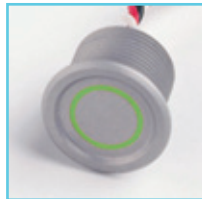
Product group: Metal Line Switches



Diameter:
16/18/19/22/
30mm

Sensor Switches
Capacitive series:
CSE 15/16/25, CLS 16
Optical series: OES 2001

Product group: Sensor Switches



Capacitive



Optical

Parameters:
Voltage:
5 - 30V
Current: up to
400mA

Power entry modules and connectors

SCHURTER offers a great number of power entry modules with or without integrated switches, line filters and fuseholders, delivering extra-safe handling protection against contact with live parts.



Panel mount connectors

Power entry modules without filters

Power entry modules with filters



Product group: Connectors (Inlets/Outlets)



Product group: Power Entry Modules without Filter



Product group: Power Entry Modules with Filter

IC protectors ROHM

		1-4	5-24	25-99	100-499	500+
ICP-N25T104 ROHM	IC protector 1.0A; Rint. 0.07ohm	0.162	0.139	0.125	0.113	0.1044
ICP-N38T104 ROHM	IC protector 1.5A; Rint. 0.042ohm	0.162	0.139	0.125	0.113	0.1044
ICP-N50T104 ROHM	IC protector 2.0A; Rint. 0.042ohm	0.162	0.139	0.125	0.113	0.1044
ICP-S0.5TN SMD ROHM	IC protector 1.5A; Rint. 0.042ohm	0.199	0.171	0.154	0.139	0.1282
ICP-S1.2TN SMD ROHM	IC protector 1.2A; Rint. 0.042ohm	0.199	0.171	0.154	0.139	0.1282

Super fast (FF) SMD Fuses USF 0603 SCHURTER

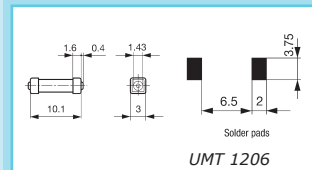
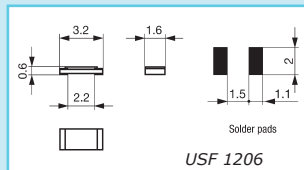
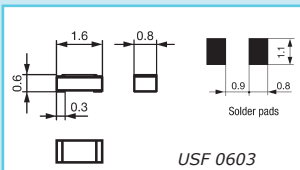
		1-4	5-24	25-99	100+
USF 0603 0.5A SCHURTER	Super fast fuse 0.5A FF 32VAC/VDC SMD 0603	0.354	0.315	0.280	0.262
USF 0603 1A SCHURTER	Super fast fuse 1A FF 32VAC/VDC SMD 0603	0.354	0.315	0.280	0.262
USF 1206 1.5A SCHURTER	Super fast fuse 1.5A FF 32VAC/63VDC SMD 1206	0.200	0.178	0.158	0.148
USF 0603 2A SCHURTER	Super fast fuse 2A FF 32VAC/VDC SMD 0603	0.354	0.315	0.280	0.262
USF 0603 2.5A SCHURTER	Super fast fuse 2.5A FF 32VAC/VDC SMD 0603	0.354	0.315	0.280	0.262
USF 0603 3.5A SCHURTER	Super fast fuse 3.5A FF 32VAC/VDC SMD 0603	0.354	0.315	0.280	0.262

Fast (F) SMD Fuses USI 1206 SCHURTER

		1-4	5-24	25-99	100+
USF 1206 0.4A SCHURTER	Fast fuse 0.4A F 32VAC/63VDC SMD 1206	0.391	0.347	0.310	0.289
USF 1206 0.5A SCHURTER	Fast fuse 0.5A F 32VAC/63VDC SMD 1206	0.391	0.347	0.310	0.289
USF 1206 1A SCHURTER	Fast fuse 1A F 32VAC/63VDC SMD 1206	0.391	0.347	0.310	0.289
USF 1206 2A SCHURTER	Fast fuse 2A F 32VAC/63VDC SMD 1206	0.391	0.347	0.310	0.289
USF 1206 2.5A SCHURTER	Fast fuse 2.5A F 32VAC/63VDC SMD 1206	0.391	0.347	0.310	0.289

Time lag (T) SMD Fuses UMT 1206 SCHURTER

		1-4	5-24	25-99	100+
UMT 250 0.315A SCHURTER	Time lag fuse 0.315A T 63V SMD 1206	0.442	0.393	0.350	0.327
UMT 250 1A SCHURTER	Time lag fuse 1A T 63V SMD 1206	0.442	0.393	0.350	0.327
UMT 250 2A SCHURTER	Time lag fuse 2A T 63V SMD 1206	0.442	0.393	0.350	0.327
UMT 250 2.5A SCHURTER	Time lag fuse 2.5A T 63V SMD 1206	0.442	0.393	0.350	0.327
UMT 250 6.3A SCHURTER	Time lag fuse 6.3A T 63V SMD 1206	0.442	0.393	0.350	0.327

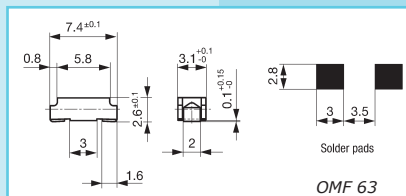
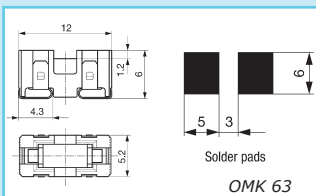


Fast (F) SMD Fuses + holder OMK 63 SCHURTER

		1-4	5-24	25-99	100+
OMK 63 0.125A SCHURTER	Holder & Fast fuse OMF 63 0.125A 63V SMD	1.384	1.256	1.128	1.064
OMK 63 0.25A SCHURTER	Holder & Fast fuse OMF 63 0.25A 63V SMD	1.394	1.265	1.137	1.072
OMK 63 0.63A SCHURTER	Holder & Fast fuse OMF 63 0.63A 63V SMD	1.394	1.265	1.137	1.072
OMK 63 1A SCHURTER	Holder & Fast fuse OMF 63 1A 63V SMD	1.394	1.265	1.137	1.072
OMK 63 1.5A SCHURTER	Holder & Fast fuse OMF 63 1.5A 63V SMD	1.394	1.265	1.137	1.072
OMK 63 2A SCHURTER	Holder & Fast fuse OMF 63 2A 63V SMD	1.394	1.265	1.137	1.072
OMK 63 2.5A SCHURTER	Holder & Fast fuse OMF 63 2.5A 63V SMD	1.394	1.265	1.137	1.072
OMK 63 5A SCHURTER	Holder & Fast fuse OMF 63 5A 63V SMD	1.394	1.265	1.137	1.072
OMK 63 5A T/R SCHURTER	Holder & Fast fuse OMF 63 5A 63V SMD	1.478	1.342	1.205	1.137

Fast (F) SMD Fuses OMF 63 SCHURTER


		1-4	5-24	25-99	100+
OMF 63 0.125A SCHURTER	Fast fuse 0.125A F 63V SMD	0.391	0.348	0.310	0.290
OMF 63 0.25A SCHURTER	Fast fuse 0.25A F 63V SMD	0.391	0.348	0.310	0.290
OMF 63 0.63A SCHURTER	Fast fuse 0.63A F 63V SMD	0.391	0.348	0.310	0.290
OMF 63 1A SCHURTER	Fast fuse 1A F 63V SMD	0.391	0.348	0.310	0.290
OMF 63 1.5A SCHURTER	Fast fuse 1.5A F 63V SMD	0.391	0.348	0.310	0.290
OMF 63 2A SCHURTER	Fast fuse 2A F 63V SMD	0.391	0.348	0.310	0.290
OMF 63 2.5A SCHURTER	Fast fuse 2.5A F 63V SMD	0.391	0.348	0.310	0.290
OMF 63 5A SCHURTER	Fast fuse 5A F 63V SMD	0.391	0.348	0.310	0.290



Resettable Fuses PFRA/PFRY SCHURTER

		1-24	25-99	100-499	500+
PFRA.010 SCHURTER	Resettable Fuse 1h 0.1A; 60V; 2.50-4.50R	0.402	0.357	0.318	0.298
PFRA.030 SCHURTER	Resettable Fuse 1h 0.3A; 60V; 0.76-1.36R	0.241	0.214	0.191	0.178
PFRA.065 SCHURTER	Resettable Fuse 1h 0.65A; 60V; 0.27-0.48R	0.299	0.266	0.237	0.222
PFRA.090 SCHURTER	Resettable Fuse 1h 0.9A; 60V; 0.14-0.31R	0.260	0.231	0.206	0.192

SMD Fuses Schurter

	Type	Rated Current		Rated Voltage		Breaking Capacity	Characteristic	Dimensions
		min	max	VAC	VDC			
	USF 0402	0.375A	5A	-	32VDC	35A	Super-Quick-Acting FF	1.05 x 0.55mm
	USF 0603	0.5A	5A	32VAC	32VDC	50A	Super-Quick-Acting FF	1.6 x 0.8mm
	USF 1206	0.375A	4A	32VAC	63VDC	50A	Super-Quick-Acting FF	3.2 x 1.6mm
	USI 1206	0.5A	6.3A	32VAC	63VDC	63A	Quick-Acting F	3.2 x 1.6mm
	UST 1206	7A	25A	32VAC	63VDC	400A	Slow-Blow	3.2 x 1.6mm
	MGA	0.2A	5A	125VAC	125VDC	50A	Super-Quick-Acting FF	3.2 x 1.6mm
	MGA-S	0.14A	3.5A	125VAC	125VDC	300A	Super-Quick-Acting FF	3.2 x 1.6mm
	UMT 250	0.08A	10A	250VAC	125VDC	200A	Time-Lag T	10.1 x 3mm
	172876	0.063A	15A	125VAC	125VDC	300A	Quick-Acting F	7 x 2mm
	MKF	0.063A	15A	125VAC	125VDC	300A	Quick-Acting F	7 x 2.54mm
	MSB	0.75A	15A	125VAC	125VDC	150A	Time-Lag T	7 x 2mm
	MKT	2A	15A	125VAC	125VDC	150A	Time-Lag T	7 x 2.54mm
	OMF 63	0.063A	10A	63VAC	63VDC	50A	Quick-Acting F	7.4 x 3.1mm
	OMK 63	0.063A	5A	63VAC	63VDC	50A	Quick-Acting F	12 x 5.2mm
	OMF 125	0.063A	10A	125VAC	125VDC	100A	Quick-Acting F	7.4 x 3.1mm
	OMK 125	0.063A	5A	125VAC	125VDC	100A	Quick-Acting F	12 x 5.2mm
	OMT 125	0.25A	5A	125VAC	125VDC	100A	Time-Lag T	7.4 x 3.1mm
	OMZ 125	0.25A	5A	125VAC	125VDC	100A	Time-Lag T	12 x 5.2mm
	OMF 250	0.25A	4A	250VAC	250VDC	100A	Quick-Acting F	11 x 4.6mm
	OMT	0.75A	5A	250VAC	-	100A	Time-Lag T	11 x 4.6mm
	SMD-FST	0.05A	20A	250VAC	-	125A	Time-Lag T	5 x 20mm
	SMD-SPT	1A	16A	250VAC	-	1500A	Time-Lag T	5 x 20mm
	SMD-FTT	0.16A	4A	250VAC	-	35A	Super-Time-Lag TT	5 x 20mm

Resettable Fuses PFRA/PFRY SCHURTER

		1-24	25-99	100-499	500+
PFRA.110 SCHURTER	Resettable Fuse Ih 1.1A; 30V; 0.10-0.18R	0.299	0.266	0.237	0.222
PFRA.160 SCHURTER	Resettable Fuse Ih 1.6A; 30V; 0.055-0.105R	0.308	0.274	0.244	0.228
PFRA.185 SCHURTER	Resettable Fuse Ih 1.85A; 30V; 0.04-0.07R	0.323	0.287	0.256	0.239
PFRA.300 SCHURTER	Resettable Fuse Ih 3A; 30V; 0.02-0.05R	0.500	0.444	0.396	0.370
PFRY.250 SCHURTER	Resettable Fuse Ih 2.5A; 72V; 0.05-0.08R	0.317	0.282	0.251	0.235
PFRY.300 SCHURTER	Resettable Fuse Ih 3A; 72V; 0.04-0.06R	0.443	0.394	0.351	0.328

Resettable Fuses SMD PFMF SCHURTER

		1-24	25-99	100-499	500+
PFMF.020.2 SCHURTER	Resettable Fuse Ih 0.2A; 60V; SMD	0.189	0.168	0.150	0.140
PFMF.030.2 SCHURTER	Resettable Fuse Ih 0.3A; 60V; SMD	0.170	0.151	0.135	0.126
PFMF.075.2 SCHURTER	Resettable Fuse Ih 0.75A; 60V; SMD	0.299	0.266	0.237	0.221
PFMF.110.2 SCHURTER	Resettable Fuse Ih 1.1A; 60V; SMD	0.299	0.266	0.237	0.221
PFMF.150.2 SCHURTER	Resettable Fuse Ih 1.5A; 60V; SMD	0.299	0.266	0.237	0.221
PFMF.200.2 SCHURTER	Resettable Fuse Ih 2A; 60V; SMD	0.332	0.295	0.263	0.246

ZD3R

Gas Discharge Tube, 3 electrodes, 230V

	1-24	25-99	100-499	500+
	1.071	0.993	0.924	0.864

PART	A max	A min	B max	B min	C max	C min	D max	D min
PFMF020.2	4.37	4.73	3.07	3.41	0.7	1.1	0.3	
PFMF030.2	4.37	4.73	3.07	3.41	0.7	1.1	0.3	
PFMF075.2	4.37	4.73	3.07	3.41	0.55	0.85	0.3	
PFMF110.2	4.37	4.73	3.07	3.41	0.45	0.75	0.3	
PFMF150.2	4.37	4.73	3.07	3.41	0.55	0.85	0.3	
PFMF200.2	4.37	4.73	3.07	3.41	0.55	0.85	0.3	

PART	A max	B max	C min	C max	D max	E max	Lead
PFRA010	7.4	12.7	4.4	5.8	7.6	3.1	0.51
PFRA030	7.4	13.4	4.4	5.8	7.6	3.1	0.51
PFRA065	9.7	15.2	4.4	5.8	7.6	3.1	0.51
PFRA090	11.7	16.7	4.4	5.8	7.6	3.1	0.51
PFRA110	8.9	14	4.4	5.8	7.6	3	0.51
PFRA160	10.2	16.8	4.4	5.8	7.6	3	0.51
PFRA185	12	18.4	4.4	5.8	7.6	3	0.51
PFRA300	12	18.3	4.4	5.8	7.6	3	0.81

Resettable Fuses

		1-24	25-99	100-499	500+
MF-R010	Resettable Fuse Ih 0.1A; 60V; 2.50-4.50R	0.313	0.278	0.248	0.232
MF-R030	Resettable Fuse Ih 0.3A; 60V; 0.76-1.36R	0.313	0.278	0.248	0.232
MF-R065	Resettable Fuse Ih 0.65A; 60V; 0.27-0.48R	0.313	0.278	0.248	0.232
MF-R090	Resettable Fuse Ih 0.9A; 60V; 0.14-0.31R	0.313	0.278	0.248	0.232
MF-R110	Resettable Fuse Ih 1.1A; 30V; 0.10-0.18R	0.325	0.289	0.258	0.241
MF-R160	Resettable Fuse Ih 1.6A; 30V; 0.055-0.105R	0.337	0.300	0.267	0.250
MF-R185	Resettable Fuse Ih 1.85A; 30V; 0.04-0.07R	0.337	0.300	0.267	0.250
MF-R300	Resettable Fuse Ih 3A; 30V; 0.02-0.05R	0.342	0.304	0.271	0.253

Relays

		1-9	10-99	100+
EDR201A0503	DIP14 REED RELAY 5V 0.5/1A 10VA 100Vdc 1/0.5ms	0.938	0.861	0.769
EDR201A1203	DIP14 REED RELAY 12V 0.5/1A 10VA 100Vdc 1/0.5ms	1.003	0.921	0.822

		1-9	10-99	100+	500+
JE-105D	5V /40mA 5A/250VAC 5A/30VDC 5A max	1.028	0.934	0.839	0.791
JE-112D	12V /16.7mA 5A/250VAC 5A/30VDC 5A max	1.028	0.934	0.839	0.791
JE-124D	24V /8.3mA 5A/250VAC 5A/30VDC 5A max	1.138	1.033	0.928	0.876
MI-SS-112L	12V /44.4mA 10A/250VAC 10A/30VDC 10A max	0.965	0.876	0.787	0.742
MI-SS-124L	24V /21.8mA 10A/250VAC 10A/30VDC 10A max	1.026	0.931	0.836	0.789
MI-SS-212L	12V /44.4mA 5A/250VAC 5A/30VDC 5A max	1.290	1.171	1.052	0.992
MI-SS-224L	24V /21.8mA 5A/250VAC 5A/30VDC 5A max	1.328	1.206	1.083	1.022

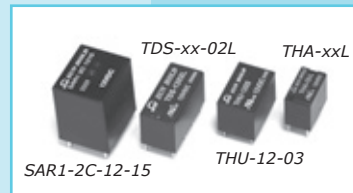
		1-9	10-99	100+	500+
EMI-SH-112D	12V /33.3mA 12A/250VAC 12A/30VDC 12A max	1.463	1.328	1.193	1.126
EMI-SH-124D	24V /16.7mA 12A/250VAC 12A/30VDC 12A max	1.482	1.345	1.209	1.140
EZ-SS-112D	12V /33.3mA 16A/250VAC 16A/30VDC 16A max	1.482	1.345	1.209	1.140
EZ-SS-124D	24V /16.7mA 16A/250VAC 16A/30VDC 16A max	1.520	1.380	1.240	1.169
EMI-SH-212D	12V /33.3mA 8A/250VAC 8A/30VDC 8A max	1.520	1.380	1.240	1.169
EMI-SH-224D	24V /16.7mA 8A/250VAC 8A/30VDC 8A max	1.539	1.397	1.255	1.184
MD-5	SIP Reed 5V/10mA 0.5A/20V 0.1A/100V 1Amax	0.577	0.524	0.470	0.444
MD-12	SIP Reed 12V/12mA 0.5A/20V 0.1A/100V 1Amax	0.595	0.540	0.485	0.458

Релега

			1-9	10-99	100+	500+
MD-5-T	DIP	Reed 5V/10mA 0.5A/20V 0.1A/100V 1Amax, DIP	0.633	0.574	0.516	0.487
MD-12-T	DIP	Reed12V/12mA 0.5A/20V 0.1A/100V 1Amax, DIP	0.651	0.591	0.531	0.501
MP-5		Reed 5V/28mA 1A/30V 0.5A/125V 1Amax, DIP	1.002	0.910	0.817	0.771
MP-5S		Reed 5V/28mA 1A/30V 0.5A/125V 1Amax, SMD	1.280	1.162	1.044	0.984
MP-12		Reed 12V/11.7mA 1A/30V 0.5A/125V 1Amax, DIP	1.002	0.910	0.817	0.771
MP-12S		Reed 12V/11.7mA 1A/30V 0.5A/125V 1Amax, SMD	1.280	1.162	1.044	0.984
TDS-05-02-L		5V /40mA 2A/28VDC 0.5A/120VAC 3A max	0.727	0.660	0.593	0.559
TDS-12-02-L		12V /17mA 2A/28VDC 0.5A/120VAC 3A max	0.708	0.615	0.572	0.545
TDS-24-02-L		24V /8mA 2A/28VDC 0.5A/120VAC 3A max	0.736	0.668	0.600	0.566
RAS-05-15		24V /15mA 15A/24VDC(120VAC) 10A/250VAC	0.419	0.373	0.332	0.311
RAS-12-15		12V /30mA 15A/24VDC(120VAC) 10A/250VAC	0.413	0.375	0.337	0.318
RAS-12-20M		12V /54mA 20A/14VDC 15A/30VDC(120VAC)	0.578	0.514	0.458	0.428
RAS-24-15		24V /15mA 15A/24VDC(120VAC) 10A/250VAC	0.429	0.381	0.340	0.318
SAR1-2C-12-15		12V /77mA 15A/12VDC(120VAC)	0.765	0.695	0.624	0.589
SCB-1-M-12-40		12V /117mA 40A/12VDC 25A/24VDC 50A max	1.493	1.355	1.217	1.148
SCB-1-M-24-40		24V/75mA 40A/12VDC 40A/24VDC 50A max	1.523	1.382	1.241	1.171
RSV-1C-M-12H		12V133.3mA 40A/12VDC 40A/24VDC 50A max	1.220	1.107	0.995	0.938
RSV-1C-M-24H		24V/66.7mA 40A/12VDC 40A/24VDC 50A max	1.240	1.125	1.011	0.954
SG4-05-20A		5V /180mA 20A/250VAC 25A max	1.924	1.747	1.569	1.480
SG4-12-20A		12V /75mA 20A/250VAC 25A max	1.905	1.729	1.553	1.465
SG4-24-20A		24V /37.5mA 20A/250VAC 25A max	1.924	1.747	1.569	1.480
RX2-12-40		12V /133mA 40A/24VDC 40A/14VDC 45A max	0.802	0.713	0.636	0.594
RT1-12-30		12V /77mA 30A/220VAC 30A/120VAC 30A max	1.042	0.946	0.849	0.801
RT1-24-30A		24V /36mA 30A/220VAC 30A/120VAC 30A max	1.478	1.342	1.205	1.137
THA-5L		5V /30.0mA 1A/60VDC 1A/125VAC 1A max	0.779	0.692	0.617	0.577
THA-12L		12V /12.5mA 1A/60VDC 1A/125VAC 1A max	0.779	0.692	0.617	0.577
THA-24		24V /6.3mA 1A/60VDC 1A/125VAC 1A max	0.809	0.719	0.641	0.599
THU-05-03L		5V /41.7mA 3A/24VDC, 2A/120VAC 3A max	0.490	0.435	0.388	0.363
THU-12-03		12V /30mA 3A/24VDC, 3A/120VAC 3A max	0.490	0.435	0.388	0.363
TNC-1C-05-12		5V /66.7mA 12A/250VAC 12A/30VDC 12A max	1.165	1.058	0.950	0.896
TNC-1C-12-12		12V /33.3mA 12A/250VAC 12A/30VDC 12A max	1.165	1.058	0.950	0.896
TNC-1C-12-16		12V /33.3mA 16A/250VAC 16A/30VDC 16A max	1.205	1.094	0.982	0.927
TNC-1C-24-12		24V /16.7mA 12A/250VAC 12A/30VDC 12A max	1.205	1.094	0.982	0.927
TNC-1C-24-16		24V /16.7mA 16A/250VAC 16A/30VDC 16A max	1.225	1.112	0.999	0.942
TNC-2C-05-08		5V /66.7mA 8A/250VAC 8A/30VDC 8A max	1.205	1.094	0.982	0.927
TNC-2C-12-08		12V /33.3mA 8A/250VAC 8A/30VDC 8A max	1.146	1.040	0.934	0.881
TNC-2C-24-08		24V /16.7mA 8A/250VAC 8A/30VDC 8A max	1.225	1.112	0.999	0.942
HF102F/T-005		5V /180mA 20A/250VAC 25A max	1.966	1.784	1.603	1.512



SG4-xx-20A



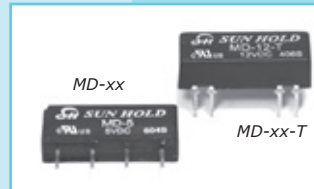
SAR1-2C-12-15

THU-12-03



MP-xxS

MP-xx



MD-xx

MD-xx-T

Solid State Relays

		1+
SSR 10A 5-32VDC	input 5-32VDC load 10A 250VAC zero cross	13.028
SSR 10AN 5-32VDC	input 5-32VDC load 10A 250VAC	13.028
SSR 10B 220VAC	input 220VAC load 10A 250VAC zero cross	13.028
SSR 10BN 220VAC	input 220VAC load 10A 250VAC	13.028
SSR 20A 5-32VDC	input 5-32VDC load 20A 250VAC zero cross	19.108
SSR 20AN 5-32VDC	input 5-32VDC load 20A 250VAC	19.108
SSR 20B 220VAC	input 220VAC load 20A 250VAC zero cross	19.108
SSR 20BN 220VAC	input 220VAC load 20A 250VAC	19.108
SSR 25D/24V	input 5-32VDC load 25A 18-32VDC	27.039
SSR 25D/36V	input 5-32VDC load 25A 28-46VDC	27.039
SSR 25D/48V	input 5-32VDC load 25A 28-55DC	27.039
SSR 2X10A NPN type	input 18-32VDC load 2x10A	23.357
SSR 2X10A PNP type	input 18-32VDC load 2x10A	23.357
SSR 2X10C NPN type	input 18-32VDC load 2x10A	21.620
SSR 2X10C PNP type	input 18-32VDC load 2x10A	21.620
SSR 40A 5-32VDC	input 5-32VDC load 40A 250VAC zero cross	21.922
SSR 40AN 5-32VDC	input 5-32VDC load 40A 250VAC	21.922
SSR 40B 220VAC	input 220VAC load 40A 250VAC zero cross	21.922
SSR 40BN 220VAC	input 220VAC load 40A 250VAC	21.922



Competence in cable management

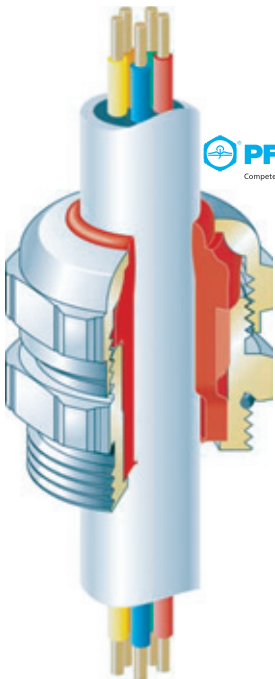
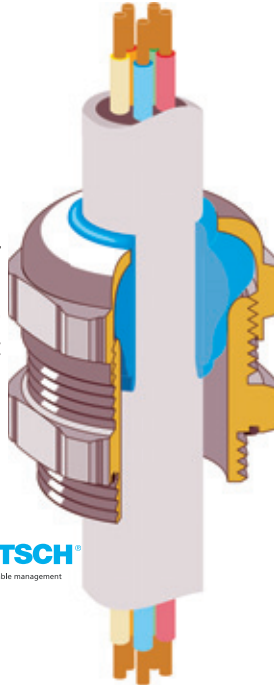
High quality cable glands and trunking systems

The company **PFLITSCH** offers high quality cable glands for equipment suitable for use in high risk environment like dust, moisture, chemical active areas and high pressure. The **blueglobe**® series of cable glands is compatible with IP68 and EN50262 Class B standards.



Cable glands series **blueglobe**®

- Body: Nickel plated brass, stainless steel or Polyamide (plastic), RoHS and WEEE compatible;
- Sealing: TPE, blue, operating temperature $-40\div 130^{\circ}\text{C}$, UL94HB, RoHS and WEEE compatible, type of protection - IP68, up to 15 bar and EN 50262 Class B;
- Removable inlet for larger cable diameters;
- Patented „globe” shape of the sealing for perfect protection.



PFLITSCH
Competence in cable management

Cable glands series **UNI Dicht**

Modular system with a great number of individually combinable components, a possibility to choose the most suitable configuration for your application.

- Body: Brass, Al, steel, Zinc or plastic (Polyamide, PVDF);
- Sealing: PVC, TPE, TPE-V, silicon;
- Type of protection: IP65, IP68;
- A diversity of sealing types for different cables - flat, cylindrical, sealings for multiple cables and etc.
- Optional cable protections for mechanical stress (strain, bending).

Cable Glands **blueglobe**®

Order Code	Description
M16x1.5	
M16x1.5 bg216PA	Cable Gland Plastic PA, grey
M16x1.5 bg216PAn	Cable Gland Plastic PA, black
M16x1.5 bg216ms	Cable Gland Brass, nickel plated
M16x1.5 1420/216	Lock Nuts PA-GFK
M16x1.5 216/5	Lock Nuts Brass, nickel plated
M20x1.5	
M20x1.5 bg220PA	Cable Gland Plastic PA, grey
M20x1.5 bg220PAn	Cable Gland Plastic PA, black
M20x1.5 bg220ms	Cable Gland Brass, nickel plated
M20x1.5 1420/220	Lock Nuts PA-GFK
M20x1.5 220/5	Lock Nuts Brass, nickel plated
M25x1.5	
M25x1.5 bg225PA	Cable Gland Plastic PA, grey
M25x1.5 bg225PAn	Cable Gland Plastic PA, black
M25x1.5 bg225ms	Cable Gland Brass, nickel plated
M25x1.5 1420/225	Lock Nuts PA-GFK
M25x1.5 225/5	Lock Nuts Brass, nickel plated
M32x1.5	
M32x1.5 bg232PA	Cable Gland Plastic PA, grey
M32x1.5 bg232PAn	Cable Gland Plastic PA, black
M32x1.5 bg232ms	Cable Gland Brass, nickel plated
M32x1.5 1420/232	Lock Nuts PA-GFK
M32x1.5 232/5	Lock Nuts Brass, nickel plated
M40x1.5	
M40x1.5 bg240PA	Cable Gland Plastic PA, grey
M40x1.5 bg240PAn	Cable Gland Plastic PA, black
M40x1.5 bg240ms	Cable Gland Brass, nickel plated
M40x1.5 1420/240	Lock Nuts PA-GFK
M40x1.5 240/5	Lock Nuts Brass, nickel plated



Competence in cable management

Cable glands series UNI Dicht Ex

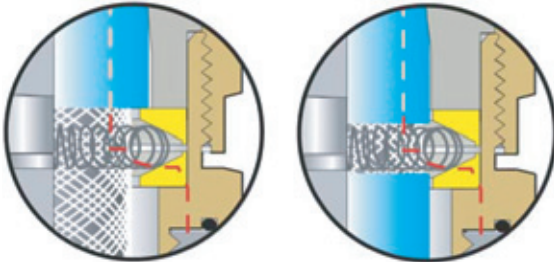
UNI Dicht Ex cable glands can be used in high-risk areas and can be installed safely into explosion-proof units with protection types “e”.

- Body: Brass, steel or plastic (PVDF);
- ATEX 95 certificated explosion-protected devices;
- Type of protection: IP65, IP68;
- Single and multiple cable glands;
- Special glands for shielded cables for improved EMC.

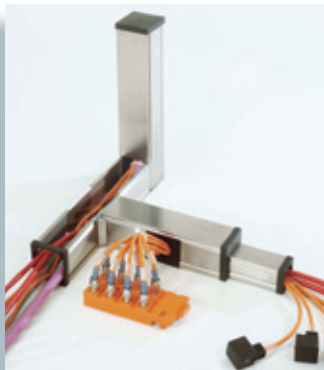


Cable glands series UNI Dicht EMC

Cable glands for shielded cables with improved EMC protection.



- Body: Nickel plated brass;
- Sealing: TPE-V;
- Steel spring ring **UNI IRIS** for easy cable shield connection;
- Type of protection: IP68 to 10 bar;
- Options for Continuous or Stripped outer sheath or braid.




Cable trunking

PFLITSCH offers a wide variety of metal cable trunks, components, accessories and instruments, necessary for building a complete cable system.



Switches

			1-9	10-99	100+	500+
SS-22F01G3			0.126	0.095	0.080	0.069
SS-22F01AT12			0.149	0.112	0.095	0.082
SS-22F32G3			0.128	0.096	0.081	0.070
SS-22J01G0			0.113	0.085	0.072	0.062
SS-22J01G9			0.122	0.092	0.078	0.067
SS-23E01G3			0.220	0.189	0.168	0.145
SS-23H02G9			0.236	0.202	0.180	0.155
SS-23H07G7			0.276	0.236	0.210	0.181
SS-42F01G7			0.276	0.236	0.210	0.181
SS-42H04G7			0.276	0.236	0.210	0.181
SK-23E01G7			0.266	0.200	0.169	0.146
SK-24F01G9			0.296	0.222	0.188	0.162

		1-9	10-99	100+	500+
R13-23BB (various colours)	switch 2p SPST ON-OFF 13x34mm 1.5A/250V	0.397	0.360	0.307	0.284
R13-66AB	switch 2p SPST ON-OFF 13x18mm 6A/250V white	0.269	0.244	0.207	0.192
R13-66RED	switch.2p SPST ON-OFF 13x19mm 3A/250Vac 6A/125Vac	0.192	0.174	0.148	0.137
R13-66A BLACK	switch.2p SPST ON-OFF 13x19mm 6A/250Vac 10A/125Vac	0.278	0.252	0.214	0.198
R13-66C BLACK	switch.3P SPDT ON-ON 13x19mm 6A/250Vac 10A/125Vac	0.324	0.294	0.250	0.232
R13-33A BLACK	switch.4P DPST ON-OFF 22x19mm 6A/250Vac 10A/125Vac	0.648	0.588	0.500	0.463
R13-33C BLACK	switch.6P DPDT ON-ON 22x19mm 6A/250Vac 10A/125Vac	0.695	0.630	0.536	0.496
R13-130AB	switch 2p SPST ON-OFF 25x19mm 6A/250V	0.828	0.736	0.656	0.613
TA101A1	switch 2p SPST ON-OFF 9x6mm 3A/250V	0.544	0.484	0.432	0.403
ROCKER SWITCH 2P2T	switch.2p 2P2T ON-OFF 22x19.2mm 6A/250V	0.784	0.697	0.621	0.581
RE-12S-A1BA-1	rocker switch 2p SPST ON/OFF 21x15mm 0.1-12A/250Vac	0.431	0.391	0.333	0.308
SCHURTER 1301.9206	switch 1pol RSS ON-OFF 15x21mm 6A/250V black RSS-Wip, 1pol, schwarz-unbel, 15x21mm	1.130	1.025	0.872	0.807
RS02	DIP switch 2p	0.376	0.334	0.298	0.279
RS04	DIP switch 4p	0.416	0.370	0.330	0.308
RS06	DIP switch 6p	0.521	0.463	0.413	0.386
RS08	DIP switch 8p	0.474	0.422	0.376	0.351
RS10	DIP switch 10p	0.707	0.629	0.560	0.524
ERD116CS	HEX switch flat	1.319	1.238	1.157	
PT65103	HEX switch flat	2.872	2.696	2.519	
ED1112S-20	rotary type encoder 20 detents	0.852	0.759	0.710	



RE-12S-A1BA-1



ED1112S-20



ROCKER SWITCH



RSxx

Tact Switches

		1-9	10-99	100-999	1000+
TS-061 (TS-1)	Tact switch 6x6 horizontal 4.4 mm	0.062	0.039	0.030	0.026
TS-062 (TS-2)	Tact switch 6x6 horizontal 5.1 mm	0.062	0.039	0.030	0.026
TS-06E (TS-3)	Tact switch 6x6 horizontal 7.0 mm	0.062	0.039	0.030	0.026
TS-06C	Tact switch 6x6 horizontal 8.0 mm	0.081	0.051	0.039	0.034
TS-064 (TS-4)	Tact switch 6x6 horizontal 9.5 mm	0.062	0.039	0.030	0.026
TS-06D (TS-7G)	Tact switch 6x6 horizontal 13 mm	0.093	0.058	0.044	0.039
TS-1201	Tact switch 12x12 horizontal	0.177	0.142	0.108	0.098



TS-061(TS-1)



TS-062(TS-2)



TS-06E(TS-3)



TS-064(TS-4)

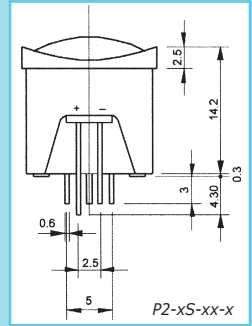
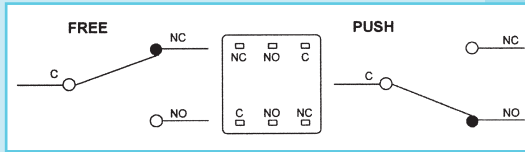
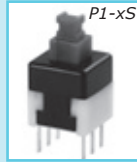
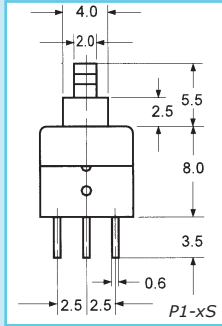


TS-06D(TS-7G)

		1-9	10-99	100-499	500+
TV-06B	Tact switch 6x6 vertical 5.85 mm	0.084	0.068	0.051	0.047
TV-06C	Tact switch 6x6 vertical 6.85 mm	0.084	0.068	0.051	0.047
TV-06D	Tact switch 6x6 vertical 8.35 mm	0.084	0.068	0.051	0.047

Tact Switches

		1-9	10-99	100-999	1000+
TSR-1	Tact switch 3.5x6 horizontal 4.3 mm	0.092	0.074	0.056	0.051
TMR-1	Tact switch 3.5x6 horizontal 4.3 mm SMD	0.105	0.085	0.064	0.058
P1-0S	push switch non lock 8x8, 2 contacts	0.292	0.262	0.252	0.234
P1-1S	push switch lock 8x8, 2 contacts	0.307	0.275	0.265	0.245
P1-XX-1B	top button sq.7x7x8mm black	0.053	0.047	0.045	0.042
P1-XX-1E	top button sq.7x7x8mm green	0.054	0.048	0.047	0.043
P1-XX-1L	top button sq.7x7x8mm blue	0.054	0.048	0.047	0.043
P1-XX-1R	top button sq.7x7x8mm red	0.054	0.048	0.047	0.043
P1-XX-1W	top button sq.7x7x8mm white	0.054	0.048	0.047	0.043
P1-XX-1Y	top button sq.7x7x8mm yellow	0.054	0.048	0.047	0.043



		1-9	10-99	100-499	500+
P1-XX-3B	top button round Ø7x8mm black	0.050	0.045	0.043	0.040
P1-XX-3E	top button round Ø7x8mm green	0.051	0.046	0.044	0.041
P1-XX-3L	top button round Ø7x8mm blue	0.051	0.046	0.044	0.041
P1-XX-3R	top button round Ø7x8mm red	0.051	0.046	0.044	0.041
P1-XX-3W	top button round Ø7x8mm white	0.051	0.046	0.044	0.041
P1-XX-3Y	top button round Ø7x8mm yellow	0.051	0.046	0.044	0.041
P2-0S-RB	push button sw. non lock red	0.547	0.491	0.473	0.438
P2-0S-EB	push button sw. non lock green	0.547	0.491	0.473	0.438
P2-0S-YB	push button sw. non lock yellow	0.547	0.491	0.473	0.438
P2-0S-RB-R	push button sw. non lock red, red LED	0.686	0.615	0.593	0.549
P2-0S-EB-E	push button sw. non lock green, gr. LED	0.686	0.615	0.593	0.549
P2-0S-YB-Y	push button sw. non lock yellow, yel. LED	0.686	0.615	0.593	0.549
P2-1S-RB	push button sw. lock red	0.594	0.532	0.513	0.475
P2-1S-EB	push button sw. lock green	0.594	0.532	0.513	0.475
P2-1S-YB	push button sw. lock yellow	0.594	0.532	0.513	0.475
P2-1S-RB-R	push button sw. lock red, red LED	0.738	0.661	0.637	0.590
P2-1S-EB-E	push button sw. lock green, gr. LED	0.738	0.661	0.637	0.590
P2-1S-YB-Y	push button sw. lock yellow, yel. LED	0.738	0.661	0.637	0.590

Tact Switches DECA SWITCH LAB

		1-4	5-24	25+
AD16LMT1-1abCR	Soldering, momentary 1NO+1NC 28VAC/DC 40mA RED rectangular	6.090	5.574	5.161
AD16LMT1-1abCG	Soldering, momentary 1NO+1NC 28VAC/DC 40mA GREEN rectangular	6.090	5.574	5.161
AD16LMT1-1abCY	Soldering, momentary 1NO+1NC 28VAC/DC 40mA YELLOW rectangular	6.090	5.574	5.161
AD16LMS1-1abCR	Soldering, momentary 1NO+1NC 28VAC/DC 40mA RED square	6.090	5.574	5.161
AD16LMS1-1abCG	Soldering, momentary 1NO+1NC 28VAC/DC 40mA GREEN square	6.090	5.574	5.161



Tact Switches DECA SWITCH LAB

		1-4	5-24	25+
AD16LMS1-1abCY	Soldering, momentary 1NO+1NC 28VAC/DC 40mA YELLOW square	6.090	5.574	5.161
AD16LMR1-1abCR	Soldering, momentary 1NO+1NC 28VAC/DC 40mA RED round	6.090	5.574	5.161
AD16LMR1-1abCG	Soldering, momentary 1NO+1NC 28VAC/DC 40mA GREEN round	6.090	5.574	5.161
AD16LMR1-1abCY	Soldering, momentary 1NO+1NC 28VAC/DC 40mA YELLOW round	6.090	5.574	5.161
AD16LAT1-1abCR	Soldering, alternate 1NO+1NC 28VAC/DC 40mA RED rectangular	6.670	6.105	5.652
AD16LAT1-1abCG	Soldering, alternate 1NO+1NC 28VAC/DC 40mA GREEN rectangular	6.670	6.105	5.652
AD16LAT1-1abCY	Soldering, alternate 1NO+1NC 28VAC/DC 40mA YELLOW rectangular	6.670	6.105	5.652
AD16LAS1-1abCR	Soldering, alternate 1NO+1NC 28VAC/DC 40mA RED square	6.670	6.105	5.652
AD16LAS1-1abCG	Soldering, alternate 1NO+1NC 28VAC/DC 40mA GREEN square	6.670	6.105	5.652
AD16LAS1-1abCY	Soldering, alternate 1NO+1NC 28VAC/DC 40mA YELLOW square	6.670	6.105	5.652
AD16LAR1-1abCR	Soldering, alternate 1NO+1NC 28VAC/DC 40mA RED round	6.670	6.105	5.652
AD16LAR1-1abCG	Soldering, alternate 1NO+1NC 28VAC/DC 40mA GREEN round	6.670	6.105	5.652
AD16LAR1-1abCY	Soldering, alternate 1NO+1NC 28VAC/DC 40mA YELLOW round	6.670	6.105	5.652
AP16LMT1-1abCR	Socket, momentary 1NO+1NC 28VAC/DC 40mA RED rectangular	6.090	5.574	5.161
AP16LMT1-1abCG	Socket, momentary 1NO+1NC 28VAC/DC 40mA GREEN rectangular	6.090	5.574	5.161
AP16LMT1-1abCY	Socket, momentary 1NO+1NC 28VAC/DC 40mA YELLOW rectangular	6.090	5.574	5.161
AP16LMS1-1abCR	Socket, momentary 1NO+1NC 28VAC/DC 40mA RED square	6.090	5.574	5.161
AP16LMS1-1abCG	Socket, momentary 1NO+1NC 28VAC/DC 40mA GREEN square	6.090	5.574	5.161
AP16LMS1-1abCY	Socket, momentary 1NO+1NC 28VAC/DC 40mA YELLOW square	6.090	5.574	5.161
AP16LMR1-1abCR	Socket, momentary 1NO+1NC 28VAC/DC 40mA RED round	6.090	5.574	5.161
AP16LMR1-1abCG	Socket, momentary 1NO+1NC 28VAC/DC 40mA GREEN round	6.090	5.574	5.161
AP16LMR1-1abCY	Socket, momentary 1NO+1NC 28VAC/DC 40mA YELLOW round	6.090	5.574	5.161
AP16LAT1-1abCR	Socket, alternate 1NO+1NC 28VAC/DC 40mA RED rectangular	6.670	6.105	5.652
AP16LAT1-1abCG	Socket, alternate 1NO+1NC 28VAC/DC 40mA GREEN rectangular	6.670	6.105	5.652
AP16LAT1-1abCY	Socket, alternate 1NO+1NC 28VAC/DC 40mA YELLOW rectangular	6.670	6.105	5.652
AP16LAS1-1abCR	Socket, alternate 1NO+1NC 28VAC/DC 40mA RED square	6.670	6.105	5.652
AP16LAS1-1abCG	Socket, alternate 1NO+1NC 28VAC/DC 40mA GREEN square	6.670	6.105	5.652
AP16LAS1-1abCY	Socket, alternate 1NO+1NC 28VAC/DC 40mA YELLOW square	6.670	6.105	5.652
AP16LAR1-1abCR	Socket, alternate 1NO+1NC 28VAC/DC 40mA RED round	6.670	6.105	5.652
AP16LAR1-1abCG	Socket, alternate 1NO+1NC 28VAC/DC 40mA GREEN round	6.670	6.105	5.652
AP16LAR1-1abCY	Socket, alternate 1NO+1NC 28VAC/DC 40mA YELLOW round	6.670	6.105	5.652
AP16LMU1-1abCB	Socket, moment. 1NO+1NC 28VAC/DC 40mA BLUE 29mm round	7.831	7.168	6.637
AP16LMU1-1abCG	Socket, moment. 1NO+1NC 28VAC/DC 40mA GREEN 29mm round	7.831	7.168	6.637
AP16LMU1-1abCR	Socket, moment. 1NO+1NC 28VAC/DC 40mA RED 29mm round	7.831	7.168	6.637
AP16LMU1-1abCW	Socket, moment. 1NO+1NC 28VAC/DC 40mA WHITE 29mm round	7.831	7.168	6.637
AP16LMU1-1abCY	Socket, moment. 1NO+1NC 28VAC/DC 40mA YELLOW 29mm round	7.831	7.168	6.637
AP16LAU1-1abCB	Socket, alternate 1NO+1NC 28VAC/DC 40mA BLUE 29mm round	8.411	7.698	7.128
AP16LAU1-1abCG	Socket, alternate 1NO+1NC 28VAC/DC 40mA GREEN 29mm round	8.411	7.698	7.128
AP16LAU1-1abCR	Socket, alternate 1NO+1NC 28VAC/DC 40mA RED 29mm round	8.411	7.698	7.128
AP16LAU1-1abCW	Socket, alternate 1NO+1NC 28VAC/DC 40mA WHITE 29mm round	8.411	7.698	7.128
AP16LAU1-1abCY	Socket, alternate 1NO+1NC 28VAC/DC 40mA YELLOW 29mm round	8.411	7.698	7.128
AP16LMV3-1abJB	Socket, flush mount, moment. 1NO+1NC BLUE LED 30mm round	15.439	14.131	13.084
AP16LMU3-1abJB	Socket, flush mount, moment. 1NO+1NC BLUE LED 35mm round	15.439	14.131	13.084
ADP16K4-ARO-1A	Keylock switch flange type 1NO+1NC 18mm round 250VAC 5A 24VDC 6A	13.183	12.066	11.172
ADP16K4-ASO-1A	Keylock switch flange type 1NO+1NC 18mm square 250VAC 5A 24VDC 6A	13.183	12.066	11.172
ADP16K4-ATO-1A	Keylock switch flange type 1NO+1NC 24x18mm 250VAC 5A 24VDC 6A	13.183	12.066	11.172
ADP16K4-ACO-1A	Keylock switch flush type 1NO+1NC 24mm square 250VAC 5A 24VDC 6A	14.964	13.696	12.682

Micro Switches

		1-9	10-99	100-499	500+
SM-05S-00P	micro sw. 5A/250Vac 19.5x9.5x6.4mm	0.371	0.332	0.321	0.297
SM-05S-03P	micro sw. 5A/250Vac 19.5x9.5x6.4mm, with lever 22.7mm	0.372	0.334	0.322	0.298
SM-05S-05B	micro sw. 5A/250Vac 19.5x9.5x6.4mm, with roller 4.8mm	0.442	0.396	0.382	0.353
SM-05S-09P	micro sw. 5A/250Vac 19.5x9.5x6.4mm, with lever 52.9mm	0.459	0.411	0.396	0.367
VM-05S-00D0	micro sw. 5A/250Vac 27.8x15.9x10.3mm	0.677	0.607	0.585	0.542
VM-05S-02D0	micro sw. 5A/250Vac 27.8x15.9x10.3mm, with lever 27mm	0.692	0.620	0.598	0.554
VMM-10S-00D0	micro sw. 10A/250Vac 27.8x15.9x10.3mm	0.619	0.555	0.535	0.495
VMM-10S-02D0	micro sw. 10A/250Vac with lever 27mm	0.714	0.640	0.617	0.571
VMM-10S-05D0	micro sw. 10A/250Vac with roller 4.75mm/12.2mm	0.802	0.718	0.693	0.641



SM-xxS-xxx



VM-xxS-xxxx



VMM-xxS-xxxx



AN-xxx-xxx



B5-xxx-xx



B8-xxx-xx



BS-xxx-xx-x



D1-xxx-xx



DF-xxx-xx



DM-xxx-xx

Micro Switches

VMN-10S-06D0	<i>micro sw. 10A/250Vac with roller 4.75mm/25.4mm</i>
VMN-03S-03D0	<i>micro sw. 3A/250Vac 27.8x15.9x10.3mm, with lever 51.1mm</i>
AN-P1S-2SP	<i>rotary sw. dia. 21mm rot. 1mA/10V DC push 50mA 12V DC</i>
B5-P5S-0D	<i>slide sw. 10mA/5V DC 11.8x3.0x10.4mm</i>
B8-P1S-0D	<i>micro sw. 50mA/24V DC 6.6x6.4x5mm</i>
BS-A2B-1D-A	<i>slide mini sw. 50mA/30V DC SMD 3.95x7.0mm</i>
D1-P1S-1F	<i>sway sw. 0.1A/12V DC 11x5.8x21.4mm</i>
DF-P1L-0P	<i>micro sw. 0.1A/30V DC 12.7x6.65x5.8mm</i>
DF-03S-0P	<i>micro sw. 3A/125V DC 12.7x6.65x5.8mm</i>
DM-03S-1P	<i>micro sw. 3A/125V DC 12.7x6.5x5.8mm with lever 14mm</i>
DM-03S-2P	<i>micro sw. 3A/125V DC 12.7x6.5x5.8mm simulated roller 15.6mm</i>

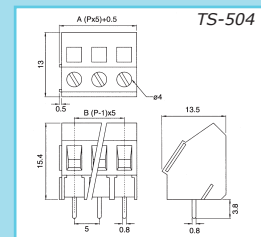
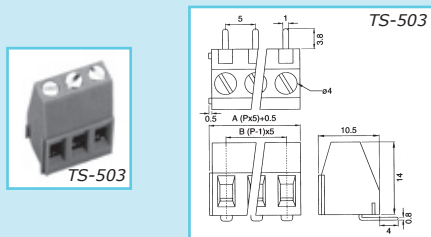
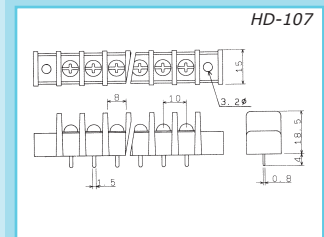
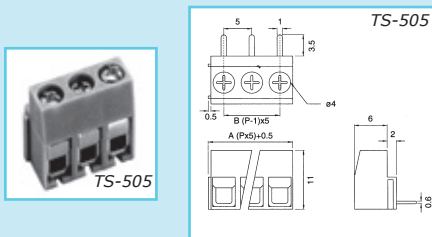
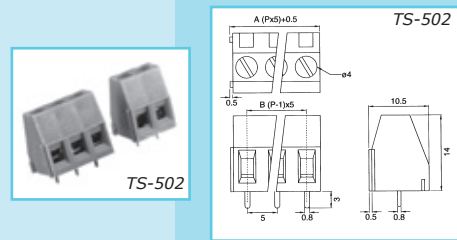
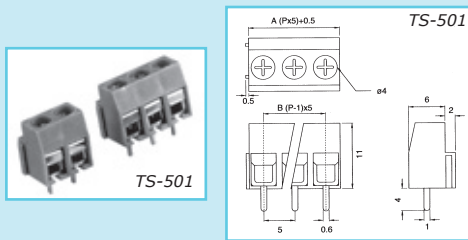
1-9	10-99	100-499	500+
0.802	0.718	0.693	0.641
0.668	0.599	0.577	0.534
0.967	0.867	0.836	0.774
0.667	0.598	0.576	0.534
0.592	0.530	0.511	0.473
0.206	0.184	0.178	0.165
0.492	0.441	0.425	0.393
0.167	0.150	0.144	0.134
0.210	0.189	0.182	0.168
0.355	0.318	0.306	0.284
0.355	0.318	0.306	0.284
1-4	5-24	25-99	100+
2.060	1.986	1.839	

TF0284 keypad 2.299

Terminal Blocks

TS-501 2P	<i>10A 300V AC AWG16-22 5mm</i>
TS-501 3P	<i>10A 300V AC AWG16-22 5mm</i>
TS-502 2P	<i>10A 300V AC AWG16-22 5mm</i>
TS-502 3P	<i>10A 300V AC AWG16-22 5mm</i>
TS-503 2P	<i>10A 300V AC AWG16-22 5mm 90°</i>
TS-503 3P	<i>10A 300V AC AWG16-22 5mm 90°</i>
TS-504 2P	<i>10A 300V AC AWG14-18 5mm 45°</i>
TS-504 3P	<i>10A 300V AC AWG14-18 5mm 45°</i>
TS-505 2P	<i>10A 300V AC AWG14-18 5mm 90°</i>
TS-505 3P	<i>10A 300V AC AWG14-18 5mm 90°</i>

1-9	10-99	100-499	500-1999	2000+
0.147	0.131	0.121	0.110	0.105
0.220	0.197	0.181	0.165	0.157
0.168	0.150	0.138	0.126	0.120
0.252	0.225	0.207	0.189	0.180
0.166	0.148	0.136	0.124	0.118
0.248	0.222	0.204	0.186	0.177
0.176	0.157	0.145	0.132	0.126
0.265	0.236	0.217	0.199	0.189
0.195	0.174	0.160	0.146	0.139
0.292	0.261	0.240	0.219	0.209

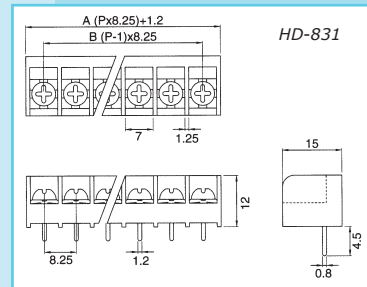
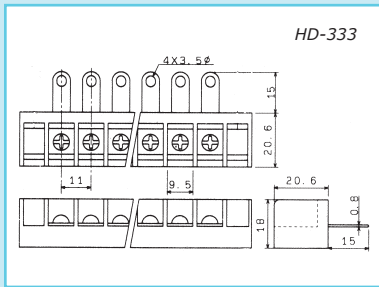


HA-522 2P	<i>10A 300V AC AWG16-24 5mm</i>
HA-522 3P	<i>10A 300V AC AWG16-24 5mm</i>
HA-522 4P	<i>10A 300V AC AWG16-24 5mm</i>
HA-522 8P	<i>10A 300V AC AWG16-24 5mm</i>
HB-953 6PH	<i>15A 300V AC AWG14-22 9.5mm</i>
HD-107 2P	<i>15A 300V AC AWG14-18 STR</i>

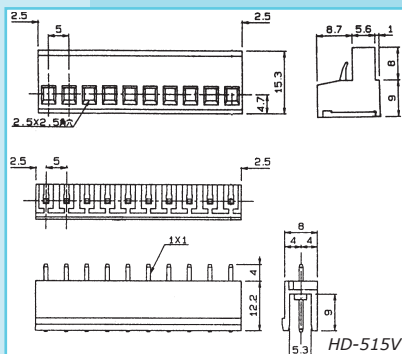
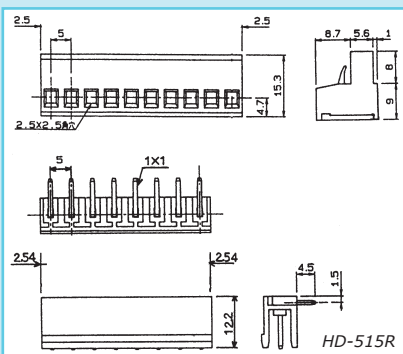
1-49	50-99	100+	500+
0.225	0.196	0.182	0.173
0.338	0.294	0.273	0.260
0.451	0.392	0.364	0.347
0.901	0.783	0.728	0.693
1.118	1.026	0.971	0.916
0.305	0.280	0.265	0.250

Terminal Blocks

		1-49	50-99	100+	500+
HD-107 2PH	15A 300V AC AWG14-18 STR	0.323	0.296	0.280	0.265
HD-107 3P	15A 300V AC AWG14-18 STR	0.465	0.427	0.404	0.381
HD-107 3PH	15A 300V AC AWG14-18 STR	0.470	0.432	0.409	0.386
HD-107 4P	15A 300V AC AWG14-18 STR	0.608	0.558	0.528	0.498
HD-107 4PH	15A 300V AC AWG14-18 STR	0.620	0.569	0.539	0.508
HD-107 5P	15A 300V AC AWG14-18 STR	0.758	0.696	0.659	0.622
HD-107 5PH	15A 300V AC AWG14-18 STR	0.773	0.710	0.672	0.634
HD-303 3PH	20A 300V AC AWG12-18 11mm	0.575	0.528	0.500	0.472
HD-323 6PH	20A 300V AC AWG12-18 11mm	1.151	1.056	1.000	0.943
HD-333 6PH	20A 300V AC AWG12-18 11mm	1.225	1.125	1.065	1.004
HD-301 4P	20A 300V AC AWG12-18 11mm	0.694	0.637	0.603	0.569
HD-331 2P	20A 300V AC AWG12-18 11mm	0.357	0.328	0.310	0.292
HD-331 3P	20A 300V AC AWG12-18 11mm	0.536	0.492	0.466	0.440
HD-331 4P	20A 300V AC AWG12-18 11mm	0.716	0.657	0.622	0.587
HD-351 2P	10A 300V AC AWG24-18 3.5mm	0.164	0.150	0.142	0.134
HD-351 3P	10A 300V AC AWG24-18 3.5mm	0.246	0.225	0.213	0.201
HD-511 2P	10A 300V AC AWG14-18 5mm	0.239	0.207	0.193	0.184
HD-511 3P	10A 300V AC AWG14-18 5mm	0.358	0.311	0.289	0.275
HD-512 2P	10A 300V AC AWG14-18 5mm	0.238	0.207	0.192	0.183
HD-512 3P	10A 300V AC AWG14-18 5mm	0.357	0.310	0.288	0.274



		1-49	50-99	100+	500+
HD-515R 2P	10A 300V AC AWG12-16 5mm 90°	0.400	0.352	0.333	0.320
HD-515R 3P	10A 300V AC AWG12-16 5mm 90°	0.598	0.527	0.498	0.479
HD-515R 4P	10A 300V AC AWG12-16 5mm 90°	0.800	0.704	0.666	0.640
HD-515R 5P	10A 300V AC AWG12-16 5mm 90°	1.000	0.880	0.832	0.800
HD-515R 6P	10A 300V AC AWG12-16 5mm 90°	1.200	1.056	0.999	0.960
HD-515R 8P	10A 300V AC AWG12-16 5mm 90°	1.599	1.407	1.330	1.279
HD-515V 2P	10A 300V AC AWG12-16 5mm	0.399	0.351	0.332	0.319
HD-515V 3P	10A 300V AC AWG12-16 5mm	0.598	0.527	0.498	0.479
HD-515V 4P	10A 300V AC AWG12-16 5mm	0.802	0.705	0.667	0.641
HD-515V 5P	10A 300V AC AWG12-16 5mm	1.000	0.880	0.832	0.800
HD-515V 6P	10A 300V AC AWG12-16 5mm	1.200	1.056	0.999	0.960
HD-515V 8P	10A 300V AC AWG12-16 5mm	1.599	1.407	1.330	1.279
HD-515R8 12P	10A 300V AC AWG12-16 5.08mm 90°	2.304	2.054	1.920	
HD-515V8 12P	10A 300V AC AWG12-16 5.08mm	2.304	2.054	1.920	
HD-515R8 9P	10A 300V AC AWG12-16 5.08mm 90°	1.728	1.541	1.440	
HD-515V8 9P	10A 300V AC AWG12-16 5.08mm	1.728	1.541	1.440	
HD-831 2P	15A 300V AC AWG14-18 8.25mm	0.278	0.255	0.241	0.228
HD-831 3P	15A 300V AC AWG14-18 8.25mm	0.417	0.383	0.362	0.342
HD-831 4P	15A 300V AC AWG14-18 8.25mm	0.554	0.508	0.481	0.454
HD-831 5P	15A 300V AC AWG14-18 8.25mm	0.697	0.640	0.605	0.571
HD-831 20P	15A 300V AC AWG14-18 8.25mm	2.666	2.576	2.259	
HD-832 7PH	15A 300V AC AWG14-18 8.25mm	0.980	0.946	0.830	



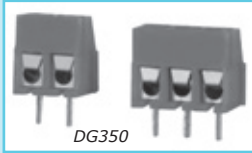
Terminal Blocks

K13 15A 300V AC AWG14-22 6.3/10mm
K14 15A 300V AC AWG14-22 5/7mm
K15 15A 300V AC AWG14-22 5/7.5mm 90°
FTB705 3PH 10A 300V AC AWG18-22 7.62mm
FTB705 4PH 10A 300V AC AWG18-22 7.62mm

1-49	50-99	100+	500+
0.140	0.124	0.111	0.103
0.140	0.124	0.111	0.103
0.135	0.120	0.107	0.100
0.405	0.372	0.352	0.332
0.553	0.508	0.480	0.453

DG350-3.5 2P 10A 300V AC AWG24-18 3.5mm
DG350-3.5 3P 10A 300V AC AWG24-18 3.5mm
DG306-5.0 2P 10A 300V AC AWG22-14 5mm blue
DG306-5.0 3P 10A 300V AC AWG22-14 5mm blue
DG128-5.0 2P 10A 300V AC AWG24-12 5mm green
DG128-5.0 3P 10A 300V AC AWG24-12 5mm green

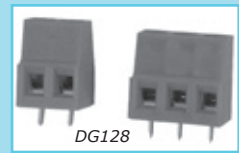
1-9	10-99	100-499	500-1999	2000+
0.093	0.070	0.068	0.064	0.057
0.138	0.105	0.102	0.095	0.085
0.099	0.075	0.073	0.068	0.061
0.147	0.112	0.108	0.101	0.090
0.159	0.121	0.117	0.110	0.098
0.239	0.182	0.176	0.164	0.146



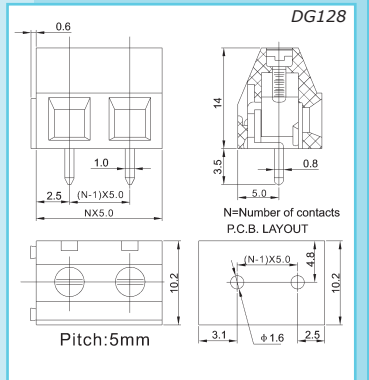
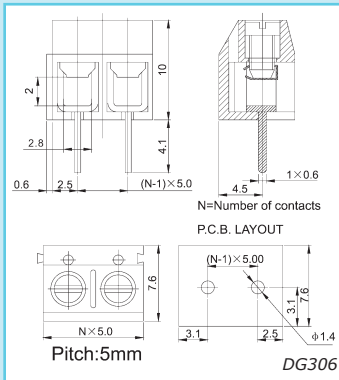
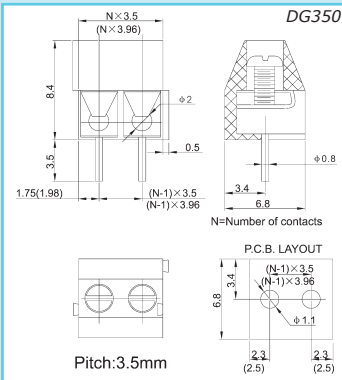
DG350



DG306

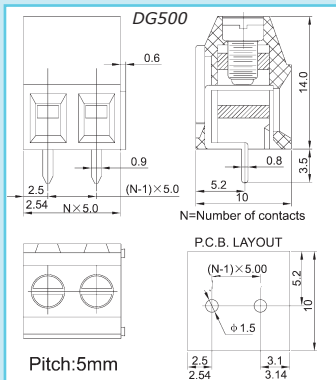


DG128



DG500-5.0 2P 10A 300V AC AWG24-12 5mm; use with DG500H
DG500-5.0 3P 10A 300V AC AWG24-12 5mm; use with DG500H
DG500H-5.0 2P 10A 300V AC AWG24-12 5mm double height
DG500H-5.0 3P 10A 300V AC AWG24-12 5mm double height

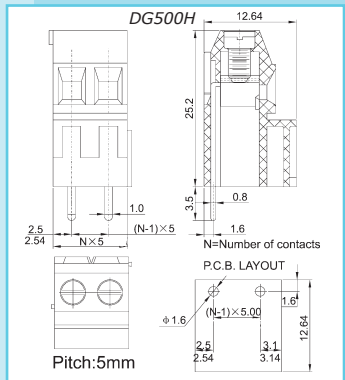
1-4	5-24	25-99	100+	500+
0.159	0.121	0.117	0.110	0.098
0.240	0.183	0.177	0.165	0.147
0.184	0.140	0.136	0.127	0.113
0.277	0.211	0.204	0.190	0.170



DG500



DG500H



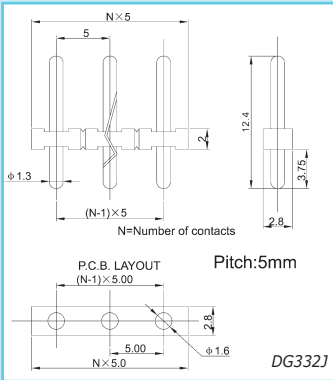
DG332J-5.0 2P 10A 300V AC pin header for DG332K black
DG332J-5.0 3P 10A 300V AC pin header for DG332K black
DG332K-5.0 2P 10A 300V AC AWG28-16 5mm blue
DG332K-5.0 3P 10A 300V AC AWG28-16 5mm blue

1-4	5-24	25-99	100+	500+
0.055	0.041	0.040	0.037	0.033
0.083	0.062	0.060	0.056	0.050
0.121	0.092	0.089	0.083	0.074
0.178	0.136	0.131	0.123	0.109

Terminal Blocks

DG15V-3.5 2P 8A 300V AC AWG28-16 3. 5mm
DG15V-3.5 3P 8A 300V AC AWG28-16 3. 5mm

1-4	5-24	25-99	100+	500+
0.377	0.334	0.323	0.301	0.269
0.565	0.501	0.485	0.452	0.404



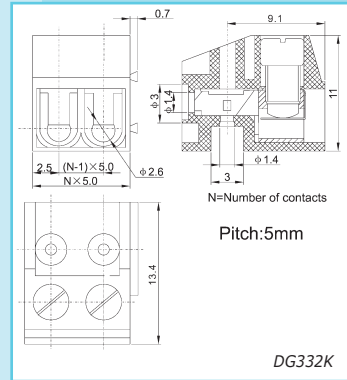
DG332J



DG332K



DG332J



N=Number of contacts

Pitch:5mm

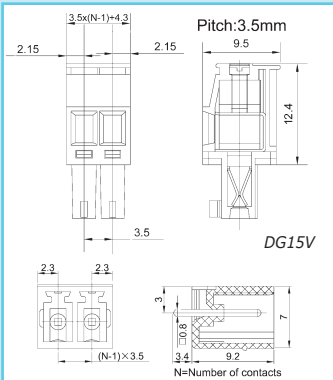
DG332K

DG15V-3.5 4P 8A 300V AC AWG28-16 3. 5mm
DG15V-3.5 5P 8A 300V AC AWG28-16 3. 5mm
DG15V-3.5 6P 8A 300V AC AWG28-16 3. 5mm

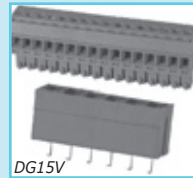
1-4	5-24	25-99	100+	500+
0.754	0.668	0.646	0.603	0.538
0.944	0.837	0.810	0.756	0.675
1.131	1.001	0.969	0.905	0.808

DG15R-3.5 2P 8A 300V AC AWG28-16 3. 5mm
DG15R-3.5 3P 8A 300V AC AWG28-16 3. 5mm
DG15R-3.5 4P 8A 300V AC AWG28-16 3. 5mm
DG15R-3.5 5P 8A 300V AC AWG28-16 3. 5mm
DG15R-3.5 6P 8A 300V AC AWG28-16 3. 5mm

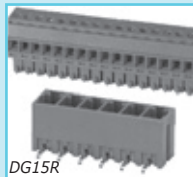
1-4	5-24	25-99	100+	500+
0.377	0.334	0.323	0.301	0.269
0.565	0.501	0.485	0.452	0.404
0.754	0.668	0.646	0.603	0.538
0.944	0.837	0.810	0.756	0.675
1.131	1.001	0.969	0.905	0.808



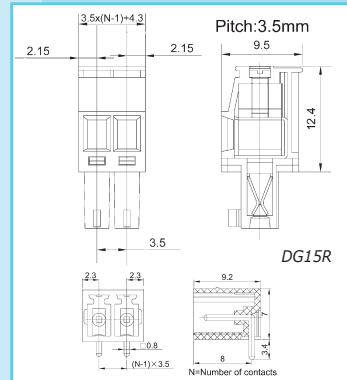
DG15V



DG15V



DG15R



DG15R

WAGO 231-102 /026-000 FEM. CONN. 2 POLE; 5 MM; GREY; 250V/16A
WAGO 231-103 /026-000 FEM. CONN. 3 POLE; 5 MM; GREY; 250V/16A
WAGO 231-104 /026-000 FEM. CONN. 4 POLE; 5 MM; GREY; 250V/16A
WAGO 231-105 /026-000 FEM. CONN. 5 POLE; 5 MM; GREY; 250V/16A
WAGO 231-106 /026-000 FEM. CONN. 6 POLE; 5 MM; GREY; 250V/16A
WAGO 231-107 /026-000 FEM. CONN. 7 POLE; 5 MM; GREY; 250V/16A
WAGO 231-108 /026-000 FEM. CONN. 8 POLE; 5 MM; GRAY; 250V/16A
WAGO 231-110 /026-000 FEM. CONN. 10 POLE; 5 MM; GREY; 250V/16A
WAGO 231-132 /001-000 HEADER;VERT.,2P;5 MM;CLOSED END;GREY;250V/12A
WAGO 231-133 /001-000 HEADER;VERT.,3P;5 MM;CLOSED END;GREY;250V/12A
WAGO 231-134 /001-000 HEADER;VERT.,4P;5 MM;CLOSED END;GREY;250V/12A
WAGO 231-135 /001-000 HEADER;VERT.,5P;5 MM;CLOSED END;GREY;250V/12A
WAGO 231-136 /001-000 HEADER;VERT.,6P;5 MM;CLOSED END;GREY;250V/12A
WAGO 231-137 /001-000 HEADER;VERT.,7P;5 MM;CLOSED END;GREY;250V/12A
WAGO 231-138 /001-000 HEADER;VERT.,8P;5 MM;CLOSED END;GREY;250V/12A
WAGO 231-140 /001-000 HEADER;VERT.,10P; 5 MM; CLOSED END;GREY;250V/12A
WAGO 233-212 2 SOLD.PINS/POLE; 12 P; 2.5 MM; 250V/6A; GREY
WAGO 233-301 END PLATE, GREY FOR 233-212
WAGO 233-512 2 SOLD.PINS/POLE; 12 P; 2.5 MM; 250V/6A; ORANGE
WAGO 233-306 END PLATE, ORANGE FOR 233-212
WAGO 255-401 16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; GREY; WITH PUSHER

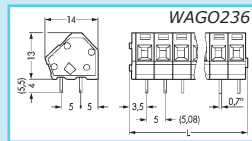
1-9	10-99	100-499	500+
1.483	1.361	1.288	1.215
2.102	1.930	1.826	1.723
2.770	2.543	2.407	2.270
3.422	3.141	2.973	2.805
4.139	3.799	3.596	3.392
4.725	4.338	4.105	3.873
5.393	4.951	4.686	4.421
6.599	6.058	5.734	5.409
0.489	0.449	0.425	0.401
0.684	0.628	0.595	0.561
0.961	0.883	0.835	0.788
1.157	1.062	1.005	0.948
1.434	1.316	1.246	1.175
1.646	1.511	1.430	1.349
1.890	1.735	1.642	1.549
2.346	2.154	2.039	1.923
4.921	4.517	4.275	4.033
0.087	0.079	0.071	0.067
4.921	4.517	4.275	4.033
0.087	0.079	0.071	0.067
0.326	0.299	0.283	0.267

Terminal Blocks

		1-9	10-99	100-499	500+
WAGO 255-740	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; RED; WITH PUSHER	0.342	0.314	0.297	0.280
WAGO 255-742	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; DARK-GRAY; WITH PUSHER	0.342	0.314	0.297	0.280
WAGO 255-744	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; BLUE; WITH PUSHER	0.342	0.314	0.297	0.280
WAGO 255-746	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; ORANGE; WITH PUSHER	0.326	0.299	0.283	0.267
WAGO 255-747	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; GREEN; WITH PUSHER	0.342	0.314	0.297	0.280
WAGO 255-100	END PLATE, GRAY, FOR 255-SERIES	0.104	0.095	0.085	0.080
WAGO 255-500	END PLATE, RED, FOR 255-SERIES	0.104	0.095	0.085	0.080
WAGO 255-200	END PLATE, DARK-GRAY, FOR 255-SERIES	0.104	0.095	0.085	0.080
WAGO 255-400	END PLATE, BLUE, FOR 255-SERIES	0.104	0.095	0.085	0.080
WAGO 255-600	END PLATE, ORANGE, FOR 255-SERIES	0.104	0.095	0.085	0.080
WAGO 255-700	END PLATE, GREEN, FOR 255-SERIES	0.104	0.095	0.085	0.080
WAGO 236-401	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; GREY; CAGE CLAMP	0.228	0.209	0.198	0.187
WAGO 236-744	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; BLUE; CAGE CLAMP	0.261	0.239	0.227	0.214
WAGO 236-746	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; ORANGE; CAGE CLAMP	0.228	0.209	0.198	0.187
WAGO 236-747	16A; 2 SOLD.PINS/POLE; 1P; 5/5.08 MM; LIGHT GREEN; CAGE CLAMP	0.261	0.239	0.227	0.214
WAGO 236-100	END PLATE, GRAY, FOR 236-SERIES	0.104	0.095	0.085	0.080
WAGO 236-400	END PLATE, BLUE, FOR 236-SERIES	0.104	0.095	0.085	0.080
WAGO 236-600	END PLATE, ORANGE, FOR 236-SERIES	0.104	0.095	0.085	0.080
WAGO 236-700	END PLATE, LIGHT GREEN, FOR 236-SERIES	0.104	0.095	0.085	0.080
WAGO 250-105	1 FRONT SOLD. PIN/POLE; 5P; 3.5 MM; 250V/2A	1.043	0.957	0.906	0.855
WAGO 250-107	1 FRONT SOLD. PIN/POLE; 7P; 3.5 MM; 250V/2A	1.450	1.331	1.260	1.189



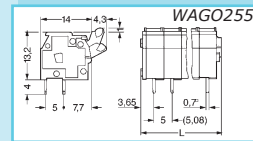
WAGO236



WAGO236



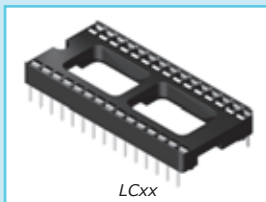
WAGO255



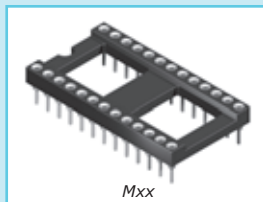
WAGO255

Low cost sockets 2.54mm

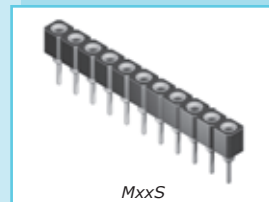
		<pack	1-4 pack	5-9 pack	10+ pack
LC6 ROHS	6 pin 0.3" 7.62 mm pack=80	0.082	0.059	0.0529	0.0509
LC8 ROHS	8 pin 0.3" 7.62 mm pack=60	0.044	0.032	0.0283	0.0272
LC14 ROHS	14 pin 0.3" 7.62 mm pack=34	0.052	0.038	0.0338	0.0325
LC16 ROHS	16 pin 0.3" 7.62 mm pack=30	0.061	0.044	0.0397	0.0382
LC18 ROHS	18 pin 0.3" 7.62 mm pack=26	0.068	0.049	0.0437	0.0421
LC20 ROHS	20 pin 0.3" 7.62 mm pack=24	0.075	0.054	0.0486	0.0467
LC22 ROHS	22 pin 0.3" 7.62 mm pack=22	0.083	0.060	0.0537	0.0517
LC24-03 ROHS	24 pin 0.3" 7.62 mm pack=20	0.089	0.064	0.0577	0.0554
LC24 ROHS	24 pin 0.6" 15.24 mm pack=20	0.089	0.064	0.0577	0.0555
LC28-03 ROHS	28 pin 0.3" 7.62 mm pack=17	0.105	0.075	0.0676	0.0650
LC28 ROHS	28 pin 0.6" 15.24 mm pack=17	0.108	0.078	0.0698	0.0671
LC32 ROHS	32 pin 0.6" 15.24 mm pack=15	0.125	0.090	0.0808	0.0777
LC40 ROHS	40 pin 0.6" 15.24 mm pack=12	0.155	0.112	0.1001	0.0963



LCxx



Mxx



MxxS

Machined Pins Sockets

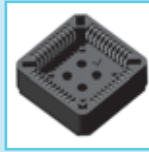
		1-4	5-24	25-99	100+
M6	6 pin 0.3" 7.62mm	0.129	0.117	0.099	0.092
M8	8 pin 0.3" 7.62 mm	0.131	0.119	0.101	0.094
M14	14 pin 0.3" 7.62 mm	0.228	0.207	0.176	0.163
M16	16 pin 0.3" 7.62 mm	0.262	0.238	0.202	0.187
M18	18 pin 0.3" 7.62 mm	0.295	0.268	0.228	0.211
M20	20 pin 0.3" 7.62 mm	0.328	0.297	0.253	0.234
M20S	20 pin SIL 0.343	0.311	0.265	0.245	
M22	22 pin 0.3" 7.62 mm	0.360	0.327	0.278	0.257
M24	24 pin 0.6" 15.24 mm	0.393	0.356	0.303	0.281
M28	28 pin 0.6" 15.24 mm	0.459	0.416	0.354	0.328
M28-3	28 pin 0.3" 7.62 mm	0.458	0.415	0.353	0.327
M40	40 pin 0.6" 15.24 mm	0.654	0.594	0.505	0.467
M40S	40 pin SIL 0.686	0.622	0.529	0.490	

PLCC Sockets

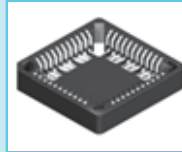
		1-4	5-24	25-99	100+
PLCC28	PLCC socket 28 pin	0.349	0.316	0.269	0.249
PLCC32	PLCC socket 32 pin	0.335	0.304	0.259	0.240
PLCC44	PLCC socket 44 pin	0.366	0.332	0.282	0.261
PLCC52	PLCC socket 52 pin	0.385	0.349	0.297	0.275

PLCC Sockets

		1-4	5-24	25-99	100+
PLCC68	PLCC socket 68 pin	0.489	0.444	0.377	0.350
PLCC84	PLCC socket 84 pin	0.506	0.459	0.390	0.361



PLCCxx



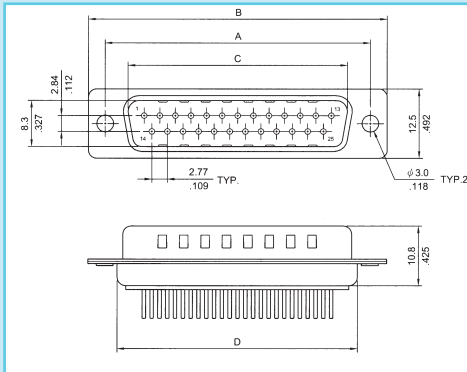
PLCCxx SMD

PLCC SMD Sockets

		1-4	5-24	25-99	100+
PLCC28 SMD	PLCC socket 28 pin SMD	0.222	0.201	0.171	0.158
PLCC32 SMD	PLCC socket 32 pin SMD	0.198	0.179	0.153	0.141
PLCC44 SMD	PLCC socket 44 pin SMD	0.258	0.234	0.199	0.184
PLCC52 SMD	PLCC socket 52 pin SMD	0.396	0.359	0.305	0.283
PLCC68 SMD	PLCC socket 68 pin SMD	0.409	0.371	0.316	0.292
PLCC84 SMD	PLCC socket 84 pin SMD	0.573	0.520	0.442	0.409

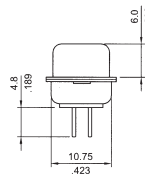
D-SUB Connectors

		1-9	10-99	100-499	500+
DB9PM	D-SUB 9 male solder	0.134	0.122	0.104	0.096
DB9PF	D-SUB 9 female solder	0.156	0.141	0.120	0.111
DB15PM	D-SUB 15 male solder	0.173	0.157	0.134	0.124
DB15PF	D-SUB 15 female solder	0.224	0.203	0.173	0.160
DB25PM	D-SUB 25 male solder	0.201	0.182	0.155	0.144
DB25PF	D-SUB 25 female solder	0.288	0.261	0.222	0.206
DB37PM	D-SUB 37 male solder	0.399	0.353	0.338	0.307
DB37PF	D-SUB 37 female solder	0.484	0.428	0.409	0.372
DB50PM	D-SUB 50 male solder	0.805	0.712	0.681	0.619
DB50PF	D-SUB 50 female solder	0.785	0.694	0.664	0.604
DB9BM	D-SUB 9 straight PCB male	0.174	0.158	0.134	0.124
DB9BF	D-SUB 9 straight PCB female	0.171	0.155	0.132	0.122
DB15BM	D-SUB 15 straight PCB male	0.254	0.231	0.196	0.182
DB15BF	D-SUB 15 straight PCB female	0.290	0.263	0.224	0.207

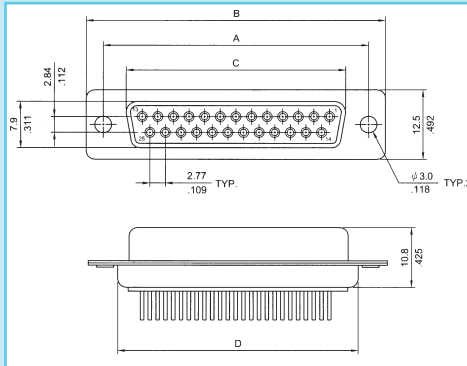


Plug Connector

Circuits	Dimension			
	A	B	C	D
9	25.00(984)	30.8(1.213)	16.92(666)	19.2(756)
15	33.32(1.312)	39.2(1.543)	25.25(994)	27.7(1.091)
25	47.04(1.852)	53.1(2.091)	38.96(1.534)	41.1(1.618)
37	63.50(2.500)	69.4(2.732)	55.42(2.182)	57.3(2.256)

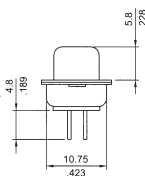


DBxxBM



Receptacle Connector

Circuits	Dimension			
	A	B	C	D
9	25.00(984)	30.8(1.213)	16.3(642)	19.2(756)
15	33.32(1.312)	39.2(1.543)	24.6(969)	27.7(1.091)
25	47.04(1.852)	53.1(2.091)	38.3(1.508)	41.1(1.618)
37	63.50(2.500)	69.4(2.732)	54.8(2.157)	57.3(2.256)



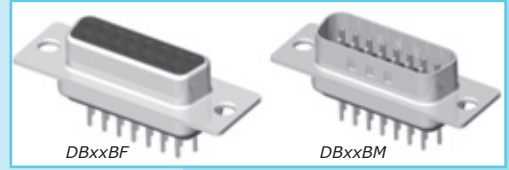
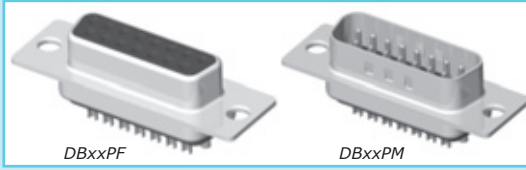
DBxxBF

D-SUB Connectors

DB25BM
DB25BF
DB37BM
DB37BF

D-SUB 25 straight PCB male
D-SUB 25 straight PCB female
D-SUB 37 straight PCB male
D-SUB 37 straight PCB female

1-9	10-99	100-499	500+
0.274	0.249	0.211	0.196
0.364	0.330	0.281	0.260
0.712	0.630	0.603	0.548
0.664	0.587	0.562	0.511



DB9BMR
DB9BFR
DB15BMR
DB15BFR
DB25BMR
DB25BFR
DB37BMR
DB37BFR

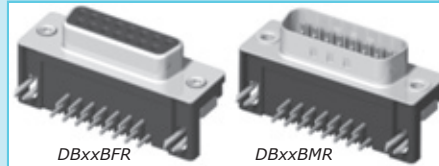
D-SUB 9 right angle PCB male
D-SUB 9 right angle PCB female
D-SUB 15 right angle PCB male
D-SUB 15 right angle PCB female
D-SUB 25 right angle PCB male
D-SUB 25 right angle PCB female
D-SUB 37 right angle PCB male
D-SUB 37 right angle PCB female

1-9	10-99	100-499	500+
0.266	0.241	0.205	0.190
0.267	0.242	0.206	0.191
0.382	0.346	0.295	0.273
0.360	0.326	0.277	0.257
0.484	0.439	0.373	0.346
0.392	0.355	0.302	0.280
0.636	0.563	0.538	0.489
0.756	0.668	0.639	0.581

DB9SM
DB9SF

D-SUB 9 flat cable male
D-SUB 9 flat cable female

1-9	10-99	100-499	500+
0.608	0.538	0.514	0.468
0.610	0.539	0.516	0.469



Plug Connector

Circuits	Dimension		
	A	B	C
9	25.00(.984)	30.8(1.213)	16.92(.666)
15	33.32(1.312)	39.2(1.543)	25.25(.994)
25	47.04(1.852)	53.1(2.091)	38.96(1.534)
37	63.50(2.500)	69.4(2.732)	55.42(2.182)

DBxxBMR

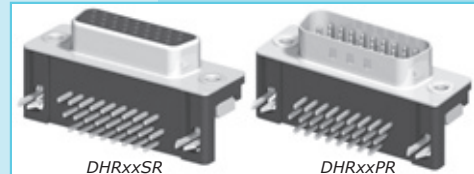
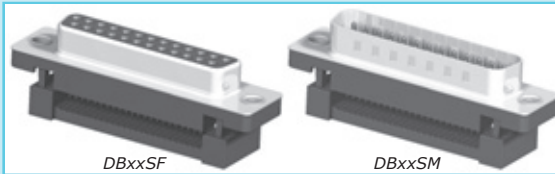
Receptacle Connector

Circuits	Dimension		
	A	B	C
9	25.00(.984)	30.8(1.213)	16.3(.642)
15	33.32(1.312)	39.2(1.543)	24.6(.969)
25	47.04(1.852)	53.1(2.091)	38.3(1.508)
37	63.50(2.500)	69.4(2.732)	54.8(2.157)

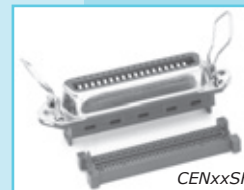
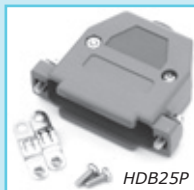
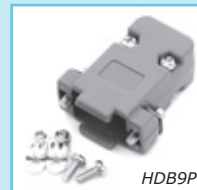
DBxxBFR

D-SUB Connectors

		1-9	10-99	100-499	500+
DB15SM	<i>D-SUB 15 flat cable male</i>	0.620	0.548	0.524	0.477
DB15SF	<i>D-SUB 15 flat cable female</i>	0.623	0.551	0.527	0.479
DB25SM	<i>D-SUB 25 flat cable male</i>	0.748	0.661	0.633	0.575
DB25SF	<i>D-SUB 25 flat cable female</i>	0.750	0.664	0.635	0.577
DB37SM	<i>D-SUB 37 flat cable male</i>	1.453	1.285	1.230	1.118
DB37SF	<i>D-SUB 37 flat cable female</i>	1.456	1.288	1.232	1.120
DHS15P	<i>D-SUB 15 High Density male solder</i>	0.208	0.177	0.160	
DHS15S	<i>D-SUB 15 High Density female solder</i>	0.207	0.177	0.159	
DHR15PR	<i>D-SUB 15 High Density right angle PCB male</i>	0.520	0.444	0.400	
DHR15SR	<i>D-SUB 15 High Density right angle PCB female</i>	0.363	0.310	0.279	

**D-SUB Hoods**

		1-9	10-99	100-499	500+
HDB9P	<i>D-SUB 9 hood</i>	0.215	0.183	0.168	0.160
HDB9PS	<i>D-SUB 9 hood SNAP</i>	0.217	0.185	0.169	0.161
HDB9PF	<i>D-SUB 9 hood flat cable</i>	0.217	0.185	0.169	0.161
HDB9PT	<i>D-SUB 9 hood thumb screw</i>	0.363	0.309	0.282	0.269
HDB9MT	<i>D-SUB 9 hood chromate plated, thumb screw</i>	0.477	0.406	0.371	0.353
HDB15P	<i>D-SUB 15 hood</i>	0.205	0.175	0.160	0.152
HDB15PT	<i>D-SUB 9 hood thumb screw</i>	0.366	0.312	0.285	0.271
HDB25P	<i>D-SUB 25 hood</i>	0.235	0.200	0.183	0.174
HDB25PS	<i>D-SUB 25 hood SNAP</i>	0.218	0.186	0.170	0.162
HDB25PT	<i>D-SUB 25 hood thumb screw</i>	0.416	0.355	0.324	0.308
HDB25PF	<i>D-SUB 25 hood flat cable</i>	0.235	0.200	0.183	0.174
HDB25MT	<i>D-SUB 25 hood chromate plated, thumb screw</i>	0.567	0.483	0.441	0.420
HDB37P	<i>D-SUB 37 hood</i>	0.364	0.310	0.283	0.269
HDB37PT	<i>D-SUB 37 hood thumb screw</i>	0.624	0.531	0.485	0.462
GC9/9	<i>Cover D-SUB9/D-SUB9</i>	0.329	0.293	0.261	0.244
GC9/25	<i>Cover D-SUB9/D-SUB25</i>	0.361	0.321	0.286	0.267
GC15/15	<i>Cover D-SUB15/D-SUB15</i>	0.353	0.314	0.280	0.262
GC25/36	<i>Cover D-SUB25/CENTR36</i>	0.561	0.499	0.445	0.416
GC25/25	<i>Cover D-SUB25/D-SUB25</i>	0.387	0.344	0.307	0.287
GC36/36	<i>Cover CENTR36/CENTR36</i>	0.524	0.466	0.415	0.388
GC25/25T	<i>Cover D-SUB25/D-SUB25 with opening</i>	0.466	0.415	0.370	0.345

**CENTRONIC Connectors**

		1-9	10-99	100+
CEN36PM	<i>Centronic 36p male solder</i>	1.126	1.004	0.939
CEN36SF	<i>Centronic 36p female flat cable</i>	1.189	1.060	0.991
CEN36BFR	<i>Centronic 36p female angled for PCB</i>	1.189	1.060	0.991
CEN50PM	<i>Centronic 50p male solder</i>	2.162	1.928	1.802
CEN50SF	<i>Centronic 50p female flat cable</i>	1.644	1.466	1.370
CEN50BFR	<i>Centronic 50p female angled for PCB</i>	1.556	1.387	1.297

DIN41 612 Connectors

		1-9	10-99	100+
DINC32FS2.9	conn.DIN 41612C 32 A-C f. solder 2.9mm	1.822	1.560	1.458
DINC32FS4.5	conn.DIN 41612C 32 A-C f. solder 4.5mm	1.672	1.432	1.338
DINC64FS2.9	conn.DIN 41612C 64 A-C f. solder 2.9mm	1.769	1.515	1.415
DINC64FS4.5	conn.DIN 41612C 64 A-C f. solder 4.5mm	1.769	1.515	1.415
DINC64FW13	conn.DIN 41612C 64 A-C f. wrap13mm	3.272	2.801	2.618
DINC64MR	conn.DIN 41612C 64 A-C male angled	1.769	1.515	1.415
DINC64MS	conn.DIN 41612C 64 A-C male solder	2.278	1.950	1.823
DINC96FS2.9	conn.DIN 41612C 96 female solder 2.9mm	2.181	1.867	1.745
DINC96FS4.5	conn.DIN 41612C 96 female solder 4.5mm	2.133	1.826	1.706
DINC96FW13	conn.DIN 41612C 96 female wrap13mm	3.636	3.112	2.909
DINC96MR	conn.DIN 41612C 96 male angled	2.424	2.075	1.939
DINR64FR	conn.DIN 41612 R 64 A-C female angled	2.476	2.119	1.981
DINR96FR	conn.DIN 41612 R 96 female angled	3.271	2.800	2.616
DIN2B32MR	conn.DIN 41612 2B 32 A-B male angled	2.108	1.804	1.686
DIN2B32FS4.5	conn.DIN 41612 2B 32 A-B f.solder 4.5 mm	2.642	2.261	2.113
DIN2B32FW13	conn.DIN 41612 2B 32 A-B f.wrap 13 mm	5.175	4.430	4.140
DINMH31MR	conn.DIN 41612 MH 24+7 male angled	7.547	6.461	6.038
DINMH31FS4.5	conn.DIN 41612 MH 24+7 f. solder 4.5mm	12.981	11.112	10.385

RJ11, RJ45 Connectors

		1-9	10-99	100-499	500+	2000+
TPL4P	Telephone Modular Plug 4p	0.036	0.027	0.023	0.022	0.023
TPL6P	Telephone Modular Plug 6p	0.052	0.039	0.034	0.032	0.031
TPL6P4C	Telephone Modular Plug 6p 4c	0.049	0.036	0.032	0.030	0.023
TPL8P(RJ45)	Modular Plug 8p RJ45	0.093	0.074	0.068	0.063	0.062
TPL8PR	Modular Plug 8p RJ45 round cable	0.103	0.082	0.075	0.069	0.064
TPL8PRS	Modular Plug 8p RJ45 round cable with shield	0.511	0.409	0.374	0.345	0.319
TS6P4C-PCB	Telephone PCB mount Jack 6p4c	0.129	0.115	0.105	0.096	
TS6P6C-PCB	Telephone PCB mount Jack 6p6c	0.159	0.141	0.130	0.118	
TS8P8C-PCB	PCB mount Jack 8p RJ45	0.451	0.401	0.367	0.334	
TS4P4C-PCB-S	Telephone PCB mount Jack 4p4c straight	0.175	0.156	0.143	0.130	
TS4P4C-PCB-U	Telephone PCB mount Jack 4p4c upside contact	0.175	0.156	0.143	0.130	
TS6P4C-PCB-UH	Telephone PCB mount Jack 6p4c upside contact	0.266	0.237	0.217	0.197	
TS6P6C-PCB-S	Telephone PCB mount Jack 6p6c straight	0.196	0.174	0.159	0.145	
TS6P6C-PCB-U	Telephone PCB mount Jack 6p6c upside contact	0.262	0.233	0.213	0.194	
TS6P4C-PCB-SX2	Double Telephone PCB mount Jack 6p4c Straight	0.532	0.473	0.434	0.394	
TS8P8C-PCB-E	PCB mount Jack 8p RJ45 Shielded	0.521	0.463	0.424	0.386	
TS8P8C-PCB-S	PCB mount Jack 8p RJ45 Straight	0.317	0.282	0.259	0.235	
TS8P8C-PCB-UH	PCB mount Jack 8p RJ45	0.372	0.331	0.303	0.276	
TS8P8C-PCB-TRAF	PCB mount Jack 8p RJ45, 10/100Base-Transf., Type F	2.534	2.252	2.064	1.877	



TPL4P



TPL6P



TPL8P(RJ45)



TS6P6C-PCB



TS8P8C-PCB-E



TS4P4C-PCB-S



TS6P6C-PCB



TS8P8C-PCB-UH



TS6P4C-PCB-SX3



TS6P6C-PCB-U

RF - BNC, SMA, MCX Connectors

		1-9	10-99	100-499	500+
BNCRG58	BNC Connector 50 Ohm, RG58	0.357	0.317	0.283	0.264
BNCRG59	BNC Connector 75 Ohm, RG59	0.448	0.398	0.355	0.332
BNCTERM50	BNC Terminator 50 Ohm	0.634	0.564	0.503	0.470
BNCTERM75	BNC Terminator 75 Ohm	0.640	0.569	0.507	0.474
BNCT	BNC T Connector	1.029	0.915	0.815	0.762
BNC F 90 PCB (VC401)	BNC female 90° PCB mount	1.053	0.936	0.834	0.780
MCX6252B1-3GT30G-50	MCX 90deg PCB jack	3.832	3.406	3.122	2.838
SMA R/A PCB	SMA female right angle PCB	1.203	1.069	0.953	0.891
SMA F (VC296)	SMA female chassis	1.577	1.402	1.250	1.168

USB; MINI-DIN, IEEE1394 Connectors

		1-9	10-99	100-499	500+
KEYSTONE 925	USB cable plug, A-type	1.109	1.006	0.855	0.792
USB A-PCB-R	USB socket, A-type, horizontal, for PCB	0.173	0.157	0.133	0.124
USB B-PCB-R	USB socket, B-type, horizontal, for PCB	0.238	0.216	0.184	0.170

USB; MINI-DIN, IEEE1394 Connectors

		1-9	10-99	100-499	500+
USB A PCB-M	USB plug, A-type, horizontal, for PCB	0.456	0.414	0.352	0.326
USB A PCB-M SMD	USB plug, A-type, SMD, horizontal, for PCB	0.483	0.438	0.372	0.345
MD6R MINI-DIN	MINI-DIN socket 6P PCB 90°	0.421	0.382	0.325	0.301
USB 5 MINI SMD	MINI USB 5 SMD socket	0.218	0.198	0.168	0.156
USB 5 MINI PLUG	MINI USB 5 plug connector	0.507	0.451	0.413	0.375
IEEE1394SR	FIREWIRE socket, horizontal, for PCB	0.382	0.347	0.295	0.273
IEEE1394SR SMD	FIREWIRE SMD socket, horizontal, for PCB	0.382	0.347	0.295	0.273
CCF-M450B	Compact Flash Slim Type Bottom Mount Connector	0.864	0.768	0.704	0.640
CSD-09G	Secure Digital Connector	0.474	0.421	0.386	0.351



USB A-PCB-R



USB A PCB-M



USB A PCB-M SMD



USB B-PCB-R



USB 5 MINI SMD



IEEE1394SR



IEEE1394SR SMD



MD6R MINI-DIN

Audio, Video, Power&Main Connectors

		1-9	10-99	100-499	500+
RCA Jack RJ-113G	RCA jack, 6-7mm cable, gold plated	0.838	0.716	0.645	
RCA Plug RP-15G	RCA plug, 6-7mm cable, gold plated	0.838	0.716	0.645	
KEYSTONE 901	RCA jack, 6-7mm, PCB	0.898	0.814	0.692	0.641
SCART21	Connector SCART	0.718	0.613	0.552	
TV1101 M	TV Plug	0.337	0.288	0.260	
TV1102 F	TV Jack	0.371	0.317	0.285	
AP340	Stereo Plug 3.5mm	0.360	0.307	0.277	
YPJ-8168X	Phone Jack 3.5mm	0.284	0.253	0.225	0.210
YPJ-8174X	Phone Jack 3.5mm	0.204	0.181	0.162	0.151
YDJ-1132	DC Power Jack 2.5mm lead wire terminals	0.478	0.425	0.379	0.354
YDJ-1134	DC Power Jack 2.0mm lead wire terminals	0.150	0.134	0.119	0.111
YDJ-1136	DC Power Jack 2.5mm lead wire terminals	0.184	0.164	0.146	0.137
YDJ-1140	DC Power Jack 2.5mm P.C.B. terminals	0.206	0.184	0.164	0.153
YDJ-1174	DC Power Jack 2.0mm P.C.B. terminals	0.210	0.187	0.167	0.156
YDJ-1182	DC Power Jack 1.3mm P.C.B. terminals	0.217	0.193	0.172	0.161
AP351B	DC Plug 2.5x9mm, receptacle	0.320	0.273	0.246	
AP352A	DC Plug 2.1x9mm, receptacle	0.337	0.288	0.260	
AP353A	DC Plug 2.1x14mm, receptacle	0.337	0.288	0.259	
AP353B	DC Plug 2.5x14mm, receptacle	0.338	0.288	0.260	
AP355B	DC Plug 1.3x9mm, receptacle	0.337	0.288	0.260	
SCHURTER KD14.1101.151	Power entry module type KD D/fuse flanged	8.173	6.996	6.538	
SCHURTER 4303.2403	Fuse drawer double fused 5x20	2.199	1.883	1.759	
SCHURTER 6200.2200	Power entry module type 6200/fuse flanged	2.067	1.769	1.653	
SCHURTER 4785.0000	Power Jack 10A 250V 90°entry	2.850	2.440	2.280	
AC PLUG 6A 250V	AC Plug 6A 250V	0.748	0.639	0.576	
YAS2020	Power Jack 10A 250V	0.626	0.534	0.481	

Information about offered fuse holders is available in the Section after Section "Fuses" on page 106

Information about offered battery holders is available in the Section after Section "Batteries" on page 180



SCHURTER KD14.1101.151



SCHURTER 4785.0000



SCHURTER 6200.2200

Flat Cable Connectors

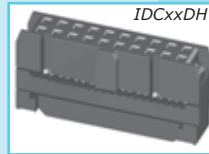
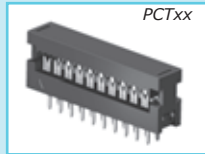
		1-9	10-99	100-499	500+
PCT10	Transition Plug Connector (fl.cable) 2x5	0.183	0.156	0.149	0.136
PCT14	Transition Plug Connector (fl.cable) 2x7	0.220	0.187	0.179	0.163
PCT16	Transition Plug Connector (fl.cable) 2x8	0.266	0.226	0.217	0.197
PCT20	Transition Plug Connector (fl.cable) 2x10	0.280	0.238	0.228	0.207
PCT26	Transition Plug Connector (fl.cable) 2x13	0.262	0.223	0.213	0.194
PCT34	Transition Plug Connector (fl.cable) 2x17	0.286	0.244	0.233	0.212
PCT40	Transition Plug Connector (fl.cable) 2x20	0.364	0.310	0.297	0.270

Technical drawings of PCTxx connectors showing top, side, and cross-sectional views with dimensions. Dimensions include: 6.0, .236, 1.27, .050 TYP., 2.3, .091, 5.0, .197, 7.2, .283, 2.54, .100, 2.54 TYP., A, B, 2.54±0.05, .100±.002 TYP., 1.0±0.10, .039±.004 TYP., 2.54±0.05, .100±.002.

PCTxx

Recommended P.C. Board Layout

Circuits	Dimension	
	A	B
8	7.62(.300)	15.5(.610)
10	10.16(.400)	18.0(.709)
14	15.24(.600)	23.1(.909)
16	17.78(.700)	25.6(1.008)
20	22.86(.900)	30.7(1.209)
24	27.94(1.100)	35.8(1.409)
26	30.48(1.200)	38.3(1.508)
30	35.56(1.400)	43.4(1.709)
34	40.64(1.600)	48.5(1.909)
40	48.26(1.900)	56.1(2.209)
50	60.96(2.400)	68.8(2.709)
60	73.66(2.900)	81.5(3.209)
64	78.74(3.100)	86.6(3.409)

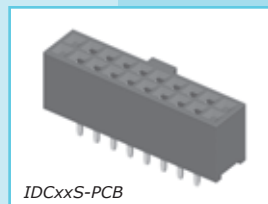
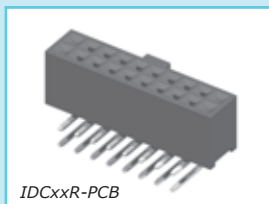


		1-9	10-99	100-499	500+
IDC10DH	IDC (flat cable) socket connector 10c	0.149	0.133	0.118	0.111
IDC14DH	IDC (flat cable) socket connector 14c	0.183	0.163	0.145	0.136
IDC16DH	IDC (flat cable) socket connector 16c	0.203	0.181	0.161	0.150
IDC20DH	IDC (flat cable) socket connector 20c	0.221	0.196	0.175	0.163
IDC26DH	IDC (flat cable) socket connector 26c	0.228	0.203	0.181	0.169
IDC34DH	IDC (flat cable) socket connector 34c	0.248	0.221	0.197	0.184
IDC40DH	IDC (flat cable) socket connector 40c	0.294	0.261	0.233	0.217
IDC50DH	IDC (flat cable) socket connector 50c	0.360	0.320	0.285	0.266
IDC64DH	IDC (flat cable) socket connector 64c	0.647	0.576	0.513	0.480

IDC10DH SHY	IDC (flat cable) socket connector 10c	0.082	0.073	0.065	0.061
IDC14DH SHY	IDC (flat cable) socket connector 14c	0.120	0.107	0.095	0.089
IDC16DH SHY	IDC (flat cable) socket connector 16c	0.114	0.101	0.090	0.084
IDC20DH SHY	IDC (flat cable) socket connector 20c	0.138	0.123	0.109	0.102
IDC26DH SHY	IDC (flat cable) socket connector 26c	0.154	0.137	0.122	0.114
IDC34DH SHY	IDC (flat cable) socket connector 34c	0.166	0.148	0.132	0.123
IDC40DH SHY	IDC (flat cable) socket connector 40c	0.177	0.157	0.140	0.131
IDC50DH SHY	IDC (flat cable) socket connector 50c	0.236	0.209	0.187	0.175
IDC64DH SHY	IDC (flat cable) socket connector 64c	0.607	0.539	0.481	0.449

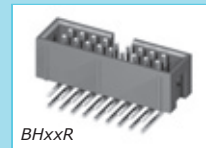
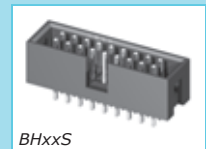
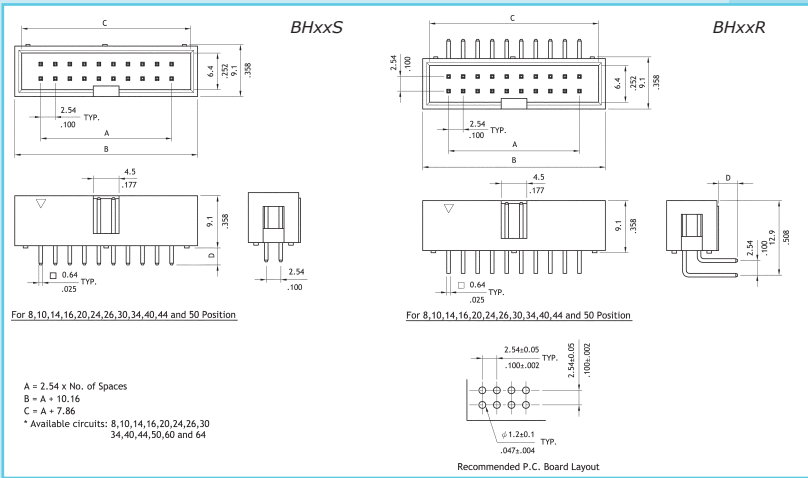
		1-4	5-24	25-99	100+
IDC26DH-1.27	IDC (flat cable) socket connector 2x13, 1.27mm	1.608	1.378	1.321	1.148

		1-9	10-99	100-499	500+
IDC10S-PCB	Dual Row Female Header 2x5 PCB	0.273	0.243	0.216	0.202
IDC14S-PCB	Dual Row Female Header 2x7 PCB	0.300	0.267	0.238	0.222
IDC20S-PCB	Dual Row Female Header 2x10 PCB	0.422	0.375	0.335	0.313



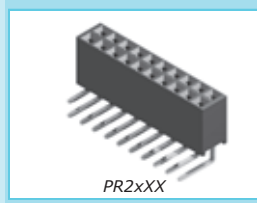
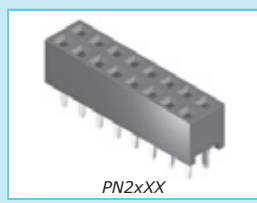
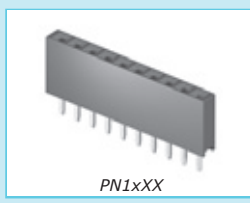
Flat Cable Connectors

		1-9	10-99	100-499	500+
IDC26S-PCB	Dual Row Female Header 2x13 PCB	0.463	0.411	0.367	0.343
IDC34S-PCB	Dual Row Female Header 2x17 PCB	0.624	0.555	0.495	0.462
IDC10R-PCB	Dual Row Female Header 2x5 right angle PCB	0.256	0.228	0.203	0.190
IDC34R-PCB	Dual Row Female Header 2x17 right angle PCB	0.734	0.652	0.582	0.544
BH10S	Box Header Connector 2x5	0.082	0.070	0.064	0.061
BH14S	Box Header Connector 2x7	0.085	0.072	0.066	0.063
BH16S	Box Header Connector 2x8	0.099	0.084	0.077	0.073
BH20S	Box Header Connector 2x10	0.104	0.089	0.081	0.077
BH26S	Box Header Connector 2x13	0.129	0.110	0.100	0.095
BH34S	Box Header Connector 2x17	0.156	0.133	0.121	0.115
BH40S	Box Header Connector 2x20	0.179	0.152	0.139	0.132
BH50S	Box Header Connector 2x25	0.218	0.185	0.169	0.161
BH64S	Box Header Connector 2x25	0.283	0.241	0.220	0.210
BH10R	Box Header Connector right angle 2x5	0.124	0.106	0.097	0.092
BH14R	Box Header Connector right angle 2x7	0.149	0.127	0.116	0.110
BH16R	Box Header Connector right angle 2x8	0.190	0.162	0.148	0.141
BH20R	Box Header Connector right angle 2x10	0.196	0.167	0.153	0.146
BH26R	Box Header Connector right angle 2x13	0.231	0.197	0.180	0.171
BH34R	Box Header Connector right angle 2x17	0.265	0.226	0.206	0.196
BH40R	Box Header Connector right angle 2x20	0.282	0.240	0.219	0.209
BH50R	Box Header Connector right angle 2x25	0.386	0.329	0.300	0.286



Connectors

		1-9	10-99	100-499	500+
PN1X8	Board to B. Socket Straight 8.5mm 1x8	0.114	0.101	0.090	0.084
PN1X10	Board to B. Socket Straight 8.5mm 1x10	0.080	0.071	0.064	0.059
PN1X16	Board to B. Socket Straight 8.5mm 1x16	0.114	0.102	0.091	0.085
PN1X20	Board to B. Socket Straight 8.5mm 1x20	0.147	0.130	0.116	0.109
PN1X20-B	Board to B. Socket Straight 5.2mm 1x20	0.397	0.353	0.315	0.294
PN1X24	Board to B. Socket Straight 8.5mm 1x24	0.258	0.229	0.204	0.191
PN1X40	Board to B. Socket Straight 8.5mm 1x40	0.376	0.335	0.298	0.279
PN2X3	Board to B. Socket Straight 8.5mm 2x3	0.113	0.100	0.089	0.083
PN2X5	Board to B. Socket Straight 8.5mm 2x5	0.133	0.118	0.105	0.099
PN2X8	Board to B. Socket Straight 8.5mm 2x8	0.138	0.123	0.110	0.103
PN2X10	Board to B. Socket Straight 8.5mm 2x10	0.153	0.136	0.121	0.113
PN2X15	Board to B. Socket Straight 8.5mm 2x15	0.206	0.183	0.163	0.152
PN2X16S	Board to B. Socket Straight 5.5mm 2x16	0.326	0.290	0.258	0.241
PN2X20	Board to B. Socket Straight 8.5mm 2x20	0.275	0.245	0.218	0.204
PN2X40	Board to B. Socket Straight 8.5mm 2x40	0.578	0.513	0.458	0.428
PR2X5	Board to B. Socket R.angle 8.5mm 2x5	0.148	0.132	0.118	0.110
PR2X10	Board to B. Socket R.angle 8.5mm 2x10	0.263	0.234	0.208	0.195



Connectors

PR2X15	Board to B. Socket R.angle 8.5mm 2x15
PR2X20	Board to B. Socket R.angle 8.5mm 2x20
PN1X10-2.0	2.0mm Board to B. Socket Straight 4.7mm 1x10
PN1X20-2.0	2.0mm Board to B. Socket Straight 4.7mm 1x20
PN2X5-2.0	2.0mm Board to B. Socket Straight 4.7mm 2x5
PN2X10-2.0	2.0mm Board to B. Socket Straight 4.7mm 2x10
PN2X5-2.0 SMD	2.0mm Board to B. Socket SMD 4.7mm 2x5
PN2X10-2.0 SMD	2.0mm Board to B. Socket SMD 4.7mm 2x10
PN1X20-1.27	1.27mm Board to B. Socket 4.6mm 1x20
PN1X20-1.27 SMD	1.27mm Board to B. Socket SMD 4.6mm 1x20
PN2X17-1.27 SMD	1.27mm Board to B. Socket SMD 2.2mm 2x17
PN2X30-1.27 SMD	1.27mm Board to B. Socket SMD 4.6mm 2x30 0.4mm square pin

	1-9	10-99	100-499	500+
	0.366	0.325	0.290	0.271
	0.483	0.430	0.383	0.358
	0.300	0.266	0.237	0.222
	0.479	0.426	0.380	0.355
	0.254	0.226	0.201	0.188
	0.328	0.292	0.260	0.243
	0.448	0.398	0.355	0.332
	0.515	0.458	0.408	0.381
	0.365	0.325	0.290	0.271
	0.407	0.362	0.323	0.301
	0.537	0.477	0.426	0.398
	1.856	1.650	1.471	1.375

PNB1xxx

Circuits	Dimension	
	A	B
2	2.54(.100)	5.3(.209)
3	5.08(.200)	7.8(.307)
4	7.62(.300)	10.4(.410)
5	10.16(.400)	12.9(.508)
6	12.70(.500)	15.4(.606)
7	15.24(.600)	18.0(.709)
8	17.78(.700)	20.5(.807)
9	20.32(.800)	23.1(.909)
10	22.86(.900)	25.6(1.008)

PNB1xxx

PNB2xxx

Circuits	Dimension	
	A	B
4	2.54(.100)	5.1(.201)
6	5.08(.200)	7.6(.299)
8	7.62(.300)	10.2(.402)
10	10.16(.400)	12.7(.500)
12	12.70(.500)	15.2(.598)
14	15.24(.600)	17.8(.701)
16	17.78(.700)	20.3(.799)
18	20.32(.800)	22.9(.902)
20	22.86(.900)	25.4(1.000)

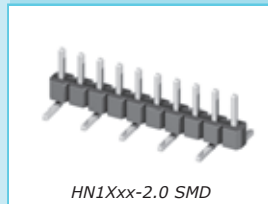
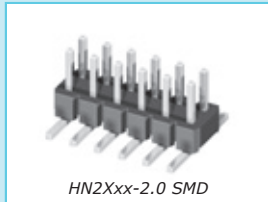
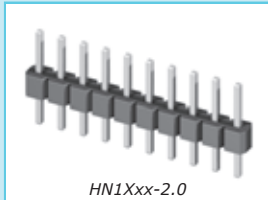
PNB2xxx

PNB1X2	2.54 mm Wire to Board Connector 1x2
PNB1X3	2.54 mm Wire to Board Connector 1x3
PNB1X4	2.54 mm Wire to Board Connector 1x4
PNB1X6	2.54 mm Wire to Board Connector 1x6
PNB1X10	2.54 mm Wire to Board Connector 1x10
PNB2X2	2.54 mm Wire to Board Connector 2x2
PNB2X3	2.54 mm Wire to Board Connector 2x3
PNB2X5	2.54 mm Wire to Board Connector 2x5
PNB2X6	2.54 mm Wire to Board Connector 2x6
PNB2X10	2.54 mm Wire to Board Connector 2x10
PLPLUG	Polarizing Plug for PNB Connectors
PNB1X2-2.0	2.0 mm Wire to Board Connector 1x2
PNB1X3-2.0	2.0 mm Wire to Board Connector 1x3
PNB1X4-2.0	2.0 mm Wire to Board Connector 1x4
PNB1X8-2.0	2.0 mm Wire to Board Connector 1x8
PNB1X10-2.0	2.0 mm Wire to Board Connector 1x10
PNB2X2-2.0	2.0 mm Wire to Board Connector 2x2

	1-9	10-99	100-499	500+
	0.019	0.018	0.015	0.014
	0.026	0.023	0.020	0.018
	0.033	0.030	0.025	0.023
	0.050	0.046	0.039	0.036
	0.097	0.088	0.075	0.069
	0.042	0.038	0.032	0.030
	0.062	0.057	0.048	0.045
	0.104	0.094	0.080	0.074
	0.125	0.113	0.096	0.089
	0.207	0.188	0.160	0.148
	0.026	0.024	0.020	0.019
	0.045	0.041	0.034	0.032
	0.064	0.059	0.050	0.046
	0.088	0.080	0.068	0.063
	0.176	0.160	0.136	0.126
	0.224	0.203	0.172	0.160
	0.088	0.080	0.068	0.063

Connectors

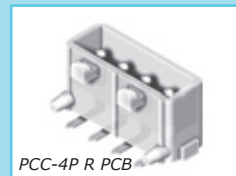
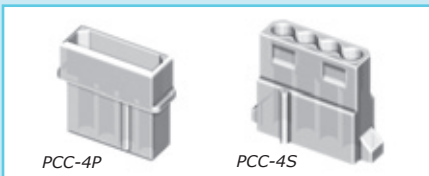
		1-9	10-99	100-499	500+
PNB2X3-2.0	2.0 mm Wire to Board Connector 2x3	0.129	0.117	0.099	0.092
PNB2X4-2.0	2.0 mm Wire to Board Connector 2x4	0.176	0.160	0.136	0.126
PNB2X8-2.0	2.0 mm Wire to Board Connector 2x8	0.339	0.308	0.262	0.242
PNB2X10-2.0	2.0 mm Wire to Board Connector 2x10	0.421	0.382	0.325	0.301
HN1X16	Single row pin header 1x16 , 2.54mm	0.065	0.058	0.052	0.048
HN1X40	Single row pin header 1x40 , 2.54mm	0.139	0.123	0.110	0.103
HN2X20	Double row pin header 2x20, 2.54mm	0.136	0.121	0.108	0.101
HN2X40	Double row pin header 2x40, 2.54mm	0.292	0.260	0.232	0.216
HN1X20L-25MM	Single row pin header h=25mm 1x20 2.54mm	0.306	0.272	0.242	0.227
HN1X20L-12MM SMD	Single row pin header SMD h=12mm 1x20 2.54mm	0.479	0.426	0.380	0.355
HN2X10B-16MM	Double row pin header straight h=16.4mm 2x10 2.54mm	0.293	0.261	0.232	0.217
HN1X40 SMD	Single row pin header SMD 1x40 2.54mm	0.735	0.653	0.582	0.544
HN2X40 SMD	Double row pin header SMD 2x20 2.54mm	1.469	1.306	1.165	1.088
HR1X40	Single row pin header 1x40 , 2.54mm, 90°	0.214	0.190	0.169	0.158
HR2X40	Double row pin header 2x40, 2.54mm, 90°	0.454	0.404	0.360	0.337
HN1X20-2.0	Single row pin header 1x20 , 2mm	0.066	0.059	0.052	0.049
HN2X20-2.0	Double row pin header 2x20, 2mm	0.133	0.118	0.106	0.099
HN2X5L-12.7MM-2.0 SMD	Double row pin header SMD h=12.77mm 2x5, 2mm	0.222	0.197	0.176	0.164
HN1X2-2.0 SMD	Single row pin header SMD 1x2 2mm	0.072	0.064	0.057	0.053
HN1X20-2.0 SMD	Single row pin header SMD 1x20 2mm	0.521	0.463	0.413	0.386
HN2X10-2.0 SMD	Double row pin header SMD 2x10 2mm	0.547	0.487	0.434	0.405
HN1X20-1.27	Single row pin header 1x20 1.27mm	0.192	0.170	0.152	0.142
HN2X17-1.27	Double row pin header 2x17 1.27mm	0.556	0.494	0.440	0.412
HN1X20-1.27 SMD	Single row pin header SMD 1x20 1.27mm	0.226	0.201	0.179	0.167
HN2X17-1.27 SMD	Double row pin header SMD 2x17 1.27mm	0.311	0.277	0.247	0.231



MJ6	Jumper 2.54/6mm	0.059	0.0117	0.0075	0.0063	0.0059
MJ14	Jumper 2.54/14mm	0.137	0.0273	0.0175	0.0147	0.0137
MJ3.4-2.0	Jumper 2.00 / 3.4mm	0.138	0.0276	0.0177	0.0149	0.0138

Connectors 5.08mm

		1-9	10-99	100-499	500+
PCC-4S	Wire Connector Female 5.08mm 4P 7A/250V	0.092	0.082	0.073	0.068
PCC-4P	Wire Connector Male 5.08mm 4P 7A/250V	0.088	0.078	0.070	0.065
PCC-4P PCB	PCB Connector Male 5.08mm 4P 7A/250V	0.263	0.234	0.208	0.195
PCC-4PR PCB	PCB Connector Male Right Angle 5.08mm 4P 7A/250V	0.447	0.397	0.354	0.331

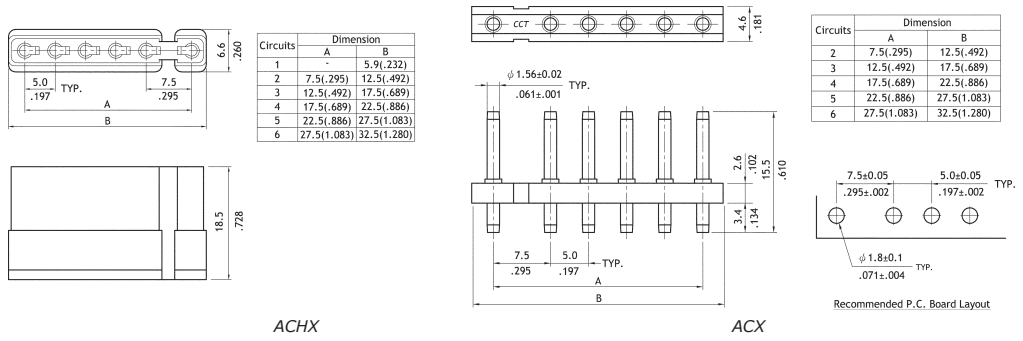


Connectors 5.00mm

		1-9	10-99	100-499	500+
ACH2	Crimp Term.Conn. 7.5(5.0)mm 2P 3A/250V	0.035	0.032	0.028	0.026
ACH3	Crimp Term.Conn. 7.5(5.0)mm 3P 3A/250V	0.051	0.046	0.041	0.038

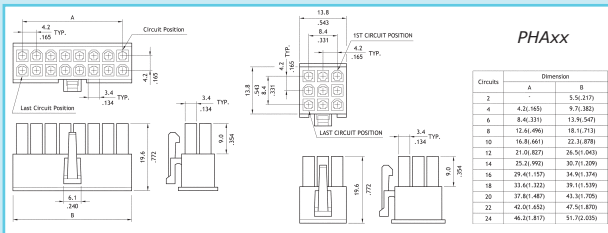
Connectors 5.00mm

		1-9	10-99	100-499	500+
ACH4	Crimp Term.Conn. 7.5(5.0)mm 4P 3A/250V	0.067	0.059	0.053	0.049
ACH5	Crimp Term.Conn. 7.5(5.0)mm 5P 3A/250V	0.080	0.071	0.063	0.059
ACH6	Crimp Term.Conn. 7.5(5.0)mm 6P 3A/250V	0.102	0.090	0.081	0.075
AC2	Connector PCB 7.5(5.0)mm 2P 3A/250V	0.066	0.059	0.053	0.049
AC3	Connector PCB 7.5(5.0)mm 3P 3A/250V	0.085	0.076	0.067	0.063
AC4	Connector PCB 7.5(5.0)mm 4P 3A/250V	0.066	0.059	0.052	0.049
AC5	Connector PCB 7.5(5.0)mm 5P 3A/250V	0.083	0.074	0.066	0.062
AC6	Connector PCB 7.5(5.0)mm 6P 3A/250V	0.098	0.087	0.077	0.072



Connectors 4.20mm

		1-9	10-99	100-499	500+
PHA02	Receptacle connector, 4.20mm 2P 7A	0.087	0.079	0.067	0.062
PHA03	Receptacle connector, 4.20mm 3P 7A	0.131	0.119	0.101	0.093
PHA04	Receptacle connector, 4.20mm 2X2P 7A	0.144	0.130	0.111	0.103
PHA06	Receptacle connector, 4.20mm 2X3P 7A	0.201	0.183	0.155	0.144
PHA08	Receptacle connector, 4.20mm 2X4P 7A	0.247	0.224	0.191	0.177
PHA09	Receptacle connector, 4.20mm 3X3P 7A	0.278	0.252	0.214	0.198
PHA10	Receptacle connector, 4.20mm 2X5P 7A	0.243	0.221	0.188	0.174
PHA12	Receptacle connector, 4.20mm 2X6P 7A	0.285	0.259	0.220	0.204
PHA14	Receptacle connector, 4.20mm 2X7P 6A	0.326	0.296	0.251	0.233
PHA20	Receptacle connector, 4.20mm 2X10P 6A	0.420	0.381	0.324	0.300



		1-9	10-99	100-499	500+
PHM02	Plug connector, 4.20mm 2P 7A	0.132	0.119	0.102	0.094
PHM03	Plug connector, 4.20mm 3P 7A	0.136	0.123	0.105	0.097
PHM04	Plug connector, 4.20mm 2X2P 7A	0.198	0.179	0.152	0.141
PHM06	Plug connector, 4.20mm 2X3P 7A	0.261	0.237	0.201	0.186
PHM09	Plug connector, 4.20mm 3X3P 7A	0.364	0.330	0.281	0.260



Connectors 4.20mm

1-9 10-99 100-499 500+

PHMxx

LAST CIRCUIT POSITION 3.75 TYP. .148 4.9 .193 4.2 .165 4.2 TYP. .165 A B 1ST CIRCUIT POSITION 1.6 ± 0.15 .063 ± .006 4.0 .157 10.0 ± 0.15 .394 ± .006 5.6 .220

Mounting Hole Details

Circuits	Dimension			
	A	B	C	D
2	-	5.7(.224)	6.1(.240)	11.1(.437)
4	4.2(.165)	9.9(.390)	10.3(.406)	15.3(.602)
6	8.4(.331)	14.1(.555)	14.5(.571)	19.5(.768)
8	12.6(.496)	18.3(.720)	18.7(.736)	23.7(.933)
10	16.8(.661)	22.5(.886)	22.9(.902)	27.9(1.098)
12	21.0(.827)	26.7(1.051)	27.1(1.067)	32.1(1.264)
14	25.2(.992)	30.9(1.217)	31.4(1.236)	36.3(1.429)
16	29.4(1.157)	35.1(1.382)	35.6(1.402)	40.5(1.594)
18	33.6(1.322)	39.3(1.547)	39.8(1.567)	44.7(1.760)
20	37.8(1.487)	43.5(1.713)	44.0(1.732)	48.9(1.925)
22	42.0(1.652)	47.7(1.878)	48.2(1.898)	53.1(2.091)
24	46.2(1.817)	51.9(2.043)	52.4(2.063)	57.3(2.256)

- PWA04R
- PWA08R
- PWA10R
- PWA12R
- PWA14R
- PWA20R

- DIP Solder Headers, 90°, 4.20mm 2X2P 7A
- DIP Solder Headers, 90°, 4.20mm 2X4P 7A
- DIP Solder Headers, 90°, 4.20mm 2X5P 7A
- DIP Solder Headers, 90°, 4.20mm 2X6P 6A
- DIP Solder Headers, 90°, 4.20mm 2X4P 6A
- DIP Solder Headers, 90°, 4.20mm 2X10P 6A

	1-9	10-99	100-499	500+
	0.163	0.148	0.126	0.116
	0.170	0.154	0.131	0.121
	0.169	0.154	0.131	0.121
	0.243	0.220	0.187	0.173
	0.243	0.220	0.187	0.173
	0.276	0.250	0.213	0.197

PWAxxR

Last Circuit Position 3.75 TYP. .148 9.6 .378 4.2 .165 4.2 TYP. .165 A B 1ST CIRCUIT POSITION 10.0 .394 5.5 ± 0.05 .217 ± .002 10.9 .547 10.0 ± 0.05 .394 3.5 .138 12.8 .504

Circuits	Dimension	
	A	B
2	-	5.5(.217)
4	4.2(.165)	9.7(.382)
6	8.4(.331)	13.9(.547)
8	12.6(.496)	18.1(.713)
10	16.8(.661)	22.3(.878)
12	21.0(.827)	26.5(1.043)
14	25.2(.992)	30.7(1.209)
16	29.4(1.157)	34.9(1.374)
18	33.6(1.322)	39.1(1.539)
20	37.8(1.487)	43.3(1.705)
22	42.0(1.652)	47.5(1.870)
24	46.2(1.817)	51.7(2.035)

Recommended P.C. Board Layout



Connectors 3.96mm

1-9 10-99 100-499 500+

- PHD2
- PHD3
- PHD4
- PHD5
- PHD6

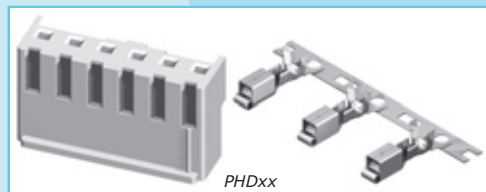
- Wire to Board Connector 3.96mm 2P 7A/250V
- Wire to Board Connector 3.96mm 3P 7A/250V
- Wire to Board Connector 3.96mm 4P 7A/250V
- Wire to Board Connector 3.96mm 5P 7A/250V
- Wire to Board Connector 3.96mm 6P 7A/250V

	1-9	10-99	100-499	500+
	0.048	0.044	0.037	0.034
	0.068	0.062	0.053	0.049
	0.084	0.076	0.065	0.060
	0.108	0.098	0.084	0.077
	0.131	0.119	0.101	0.094

PHDxx

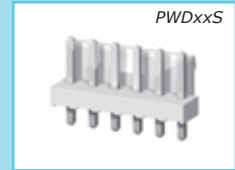
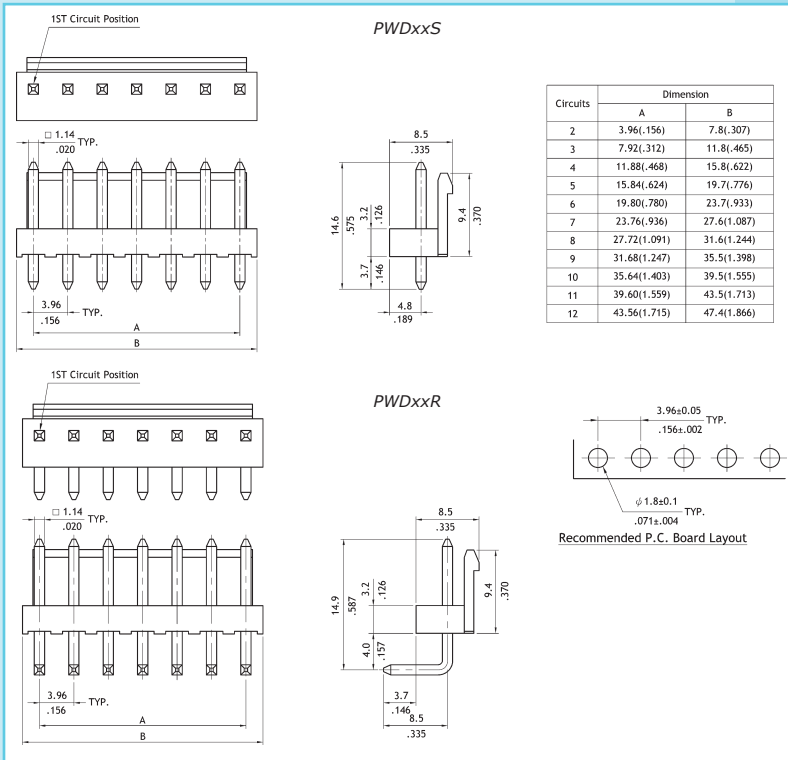
1.9 .075 10.5 .413 3.96 TYP. .156 A 1ST CIRCUIT POSITION 5.7 24 13.3 .524 4.25 .167

Circuits	Dimension	
	A	B
2	3.96(.156)	7.9(.311)
3	7.92(.312)	11.9(.469)
4	11.88(.468)	15.8(.622)
5	15.84(.624)	19.8(.780)
6	19.80(.780)	23.8(.937)
7	23.76(.935)	27.7(1.091)
8	27.72(1.091)	31.7(1.248)
9	31.68(1.247)	35.6(1.402)
10	35.64(1.403)	39.6(1.559)
11	39.60(1.559)	43.6(1.717)
12	43.56(1.715)	47.5(1.870)

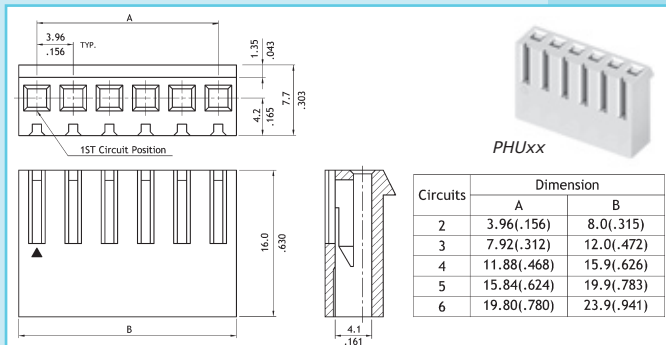


Connectors 3.96mm

		1-9	10-99	100-499	500+
PHD8	Wire to Board Connector 3.96mm 8P 7A/250V	0.174	0.158	0.134	0.124
PHD10	Wire to Board Connector 3.96mm 10P 7A/250V	0.218	0.198	0.168	0.156
PHD12	Wire to Board Connector 3.96mm 12P 7A/250V	0.226	0.205	0.174	0.161
PWD2S	Pin Header 3.96mm 2P 7A/250V	0.027	0.025	0.021	0.020
PWD3S	Pin Header 3.96mm 3P 7A/250V	0.031	0.028	0.024	0.022
PWD4S	Pin Header 3.96mm 4P 7A/250V	0.043	0.039	0.033	0.031
PWD5S	Pin Header 3.96mm 5P 7A/250V	0.051	0.046	0.039	0.036
PWD6S	Pin Header 3.96mm 6P 7A/250V	0.065	0.059	0.050	0.046
PWD8S	Pin Header 3.96mm 8P 7A/250V	0.085	0.077	0.066	0.061
PWD10S	Pin Header 3.96mm 10P 7A/250V	0.108	0.098	0.083	0.077
PWD2R	Pin Header 90°, 3.96mm 2P 7A/250V	0.043	0.039	0.033	0.031
PWD3R	Pin Header 90°, 3.96mm 3P 7A/250V	0.046	0.042	0.036	0.033
PWD4R	Pin Header 90°, 3.96mm 4P 7A/250V	0.054	0.049	0.042	0.039
PWD5R	Pin Header 90°, 3.96mm 5P 7A/250V	0.081	0.073	0.062	0.058
PWD6R	Pin Header 90°, 3.96mm 6P 7A/250V	0.099	0.090	0.076	0.071
PWD8R	Pin Header 90°, 3.96mm 8P 7A/250V	0.107	0.097	0.083	0.077
PWD10R	Pin Header 90°, 3.96mm 10P 7A/250V	0.135	0.123	0.104	0.097
PWD12R	Pin Header 90°, 3.96mm 12P 7A/250V	0.158	0.143	0.122	0.113



		1-9	10-99	100-499	500+
PHU2	Crimp Terminal Conn. 3.96mm 2P 7A/250V	0.029	0.026	0.023	0.022
PHU3	Crimp Terminal Conn. 3.96mm 3P 7A/250V	0.051	0.046	0.041	0.038



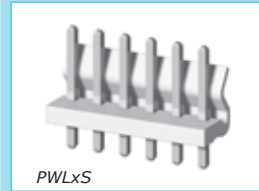
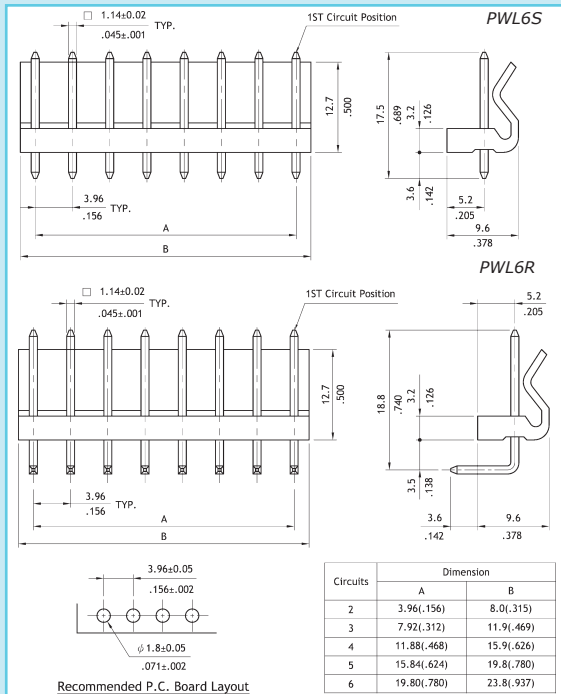
Connectors 3.96mm

PHU4
PHU6

Crimp Terminal Conn. 3.96mm 4P 7A/250V
Crimp Terminal Conn. 3.96mm 6P 7A/250V

1-9 10-99 100-499 500+

0.060 0.053 0.048 0.045
0.090 0.080 0.071 0.067



PWL2S
PWL3S
PWL4S
PWL6S
PWL2R
PWL3R
PWL4R
PWL6R

Connector PCB 3.96mm 2P 7A/250V
Connector PCB 3.96mm 3P 7A/250V
Connector PCB 3.96mm 4P 7A/250V
Connector PCB 3.96mm 6P 7A/250V
Connector r.angle PCB 3.96mm 2P 7A/250V
Connector r.angle PCB 3.96mm 3P 7A/250V
Connector r.angle PCB 3.96mm 4P 7A/250V
Connector r.angle PCB 3.96mm 6P 7A/250V

1-9 10-99 100-499 500+

0.044 0.036 0.029 0.027
0.057 0.051 0.045 0.042
0.079 0.070 0.062 0.058
0.094 0.083 0.074 0.070
0.038 0.034 0.030 0.028
0.050 0.044 0.039 0.037
0.064 0.057 0.051 0.048
0.133 0.118 0.105 0.098

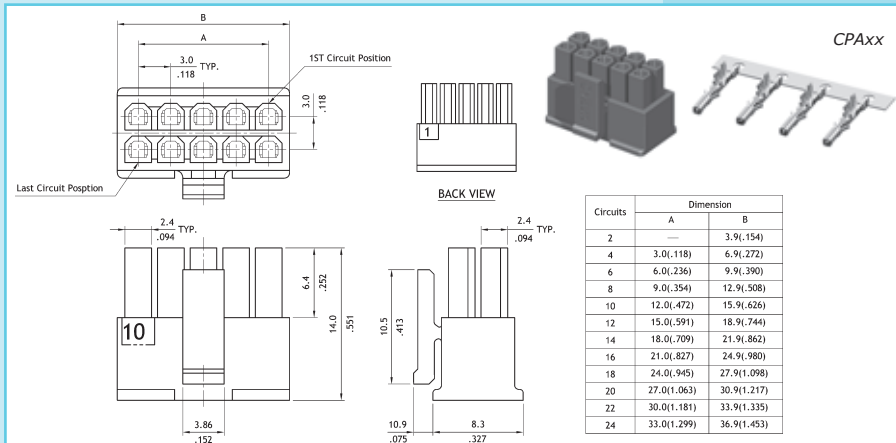
Connectors 3.00mm

CPA02S
CPA03S
CPA04

Receptacle connector, 3.00mm 2P 5A
Receptacle connector, 3.00mm 3P 5A
Receptacle connector, 3.00mm 2X2P 5A

1-9 10-99 100-499 500+

0.118 0.107 0.091 0.084
0.153 0.138 0.118 0.109
0.184 0.166 0.142 0.131



Connectors 3.00mm

- CPA06 Receptacle connector, 3.00mm 2X3P 5A
- CPA08 Receptacle connector, 3.00mm 2X4P 5A
- CPA10 Receptacle connector, 3.00mm 2X5P 5A
- CPA12 Receptacle connector, 3.00mm 2X6P 5A
- CPA14 Receptacle connector, 3.00mm 2X7P 5A
- CPA16 Receptacle connector, 3.00mm 2X8P 5A
- CPA18 Receptacle connector, 3.00mm 2X9P 5A
- CPA20 Receptacle connector, 3.00mm 2X10P 5A

	1-9	10-99	100-499	500+
CPA06	0.256	0.232	0.198	0.183
CPA08	0.312	0.283	0.240	0.223
CPA10	0.371	0.336	0.286	0.265
CPA12	0.466	0.422	0.359	0.333
CPA14	0.478	0.434	0.369	0.342
CPA16	0.535	0.485	0.413	0.382
CPA18	0.589	0.534	0.454	0.420
CPA20	0.651	0.590	0.502	0.465

Circuits	Dimension		
	A	B	C
2	—	3.9(.154)	4.09(.161)
4	3.0(.118)	6.9(.272)	7.09(.279)
6	6.0(.236)	9.9(.390)	10.08(.397)
8	9.0(.354)	12.9(.508)	13.08(.515)
10	12.0(.472)	15.9(.626)	16.06(.633)
12	15.0(.591)	18.9(.744)	19.08(.751)
14	18.0(.709)	21.9(.862)	22.07(.869)
16	21.0(.827)	24.9(.980)	25.07(.967)
18	24.0(.945)	27.9(1.098)	26.07(1.105)
20	27.0(1.063)	30.9(1.217)	31.06(1.223)
22	30.0(1.181)	33.9(1.335)	34.06(1.341)
24	33.0(1.299)	36.9(1.453)	37.06(1.459)

- CPM02S Plug connector, 3.00mm 2P 5A
- CPM03S Plug connector, 3.00mm 3P 5A
- CPM04 Plug connector, 3.00mm 2X2P 5A
- CPM06 Plug connector, 3.00mm 2X3P 5A
- CPM08 Plug connector, 3.00mm 2X4P 5A
- CPM10 Plug connector, 3.00mm 2X5P 5A

	1-9	10-99	100-499	500+
CPM02S	0.125	0.113	0.096	0.089
CPM03S	0.160	0.146	0.124	0.115
CPM04	0.192	0.174	0.148	0.137
CPM06	0.265	0.240	0.204	0.189
CPM08	0.323	0.293	0.249	0.230
CPM10	0.380	0.345	0.293	0.271

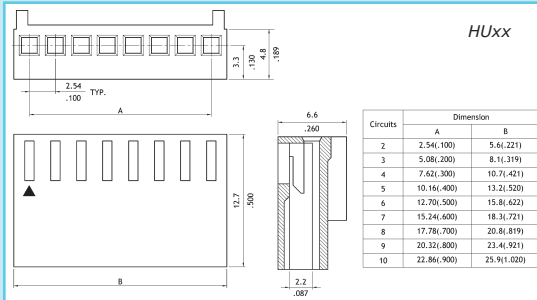
Circuits	Dimension	
	A	B
2	—	6.7(.264)
4	3.0(.118)	9.7(.382)
6	6.0(.236)	12.7(.500)
8	9.0(.354)	15.7(.618)
10	12.0(.472)	18.7(.657)
12	15.0(.591)	21.7(.854)
14	18.0(.709)	24.7(.972)
16	21.0(.827)	27.7(1.091)
18	24.0(.945)	30.7(1.209)
20	27.0(1.063)	33.7(1.327)
22	30.0(1.181)	36.7(1.445)
24	33.0(1.299)	39.7(1.563)

Connectors 3.00mm

- CPW04S
- CPW06S
- CPW08S
- CPW10S
- CPW12S
- CPW14S
- CPW18S
- CPW20S
- CPW04R
- CPW06R
- CPW08R
- CPW10R
- CPW12R
- CPW14R
- CPW16R
- CPW18R
- CPW20R

- DIP Solder Headers 3.00mm 2X2P 5A
- DIP Solder Headers 3.00mm 2X3P 5A
- DIP Solder Headers 3.00mm 2X4P 5A
- DIP Solder Headers 3.00mm 2X5P 5A
- DIP Solder Headers 3.00mm 2X6P 5A
- DIP Solder Headers 3.00mm 2X7P 5A
- DIP Solder Headers 3.00mm 2X9P 5A
- DIP Solder Headers 3.00mm 2X10P 5A
- DIP Solder Headers, 90°, 3.00mm 2X2P 5A
- DIP Solder Headers, 90°, 3.00mm 2X3P 5A
- DIP Solder Headers, 90°, 3.00mm 2X4P 5A
- DIP Solder Headers, 90°, 3.00mm 2X5P 5A
- DIP Solder Headers, 90°, 3.00mm 2X6P 5A
- DIP Solder Headers, 90°, 3.00mm 2X7P 5A
- DIP Solder Headers, 90°, 3.00mm 2X8P 5A
- DIP Solder Headers, 90°, 3.00mm 2X9P 5A
- DIP Solder Headers, 90°, 3.00mm 2X10P 5A

	1-9	10-99	100-499	500+
CPW04S	0.215	0.195	0.166	0.153
CPW06S	0.242	0.219	0.186	0.173
CPW08S	0.269	0.244	0.208	0.192
CPW10S	0.299	0.272	0.231	0.214
CPW12S	0.328	0.298	0.253	0.235
CPW14S	0.352	0.319	0.271	0.251
CPW18S	0.404	0.367	0.312	0.289
CPW20S	0.440	0.399	0.339	0.314
CPW04R	0.277	0.251	0.214	0.198
CPW06R	0.306	0.278	0.236	0.219
CPW08R	0.339	0.307	0.261	0.242
CPW10R	0.375	0.340	0.289	0.268
CPW12R	0.408	0.370	0.314	0.291
CPW14R	0.437	0.397	0.337	0.312
CPW16R	0.461	0.418	0.356	0.329
CPW18R	0.498	0.452	0.384	0.356
CPW20R	0.546	0.495	0.421	0.390



HUXx

Circuits	Dimension	
	A	B
2	2.54(100)	5.4(211)
3	5.08(200)	8.1(319)
4	7.62(300)	10.7(421)
5	10.16(400)	13.2(520)
6	12.70(500)	15.8(622)
7	15.24(600)	18.3(721)
8	17.78(700)	20.8(819)
9	20.32(800)	23.4(921)
10	22.86(900)	25.9(1020)



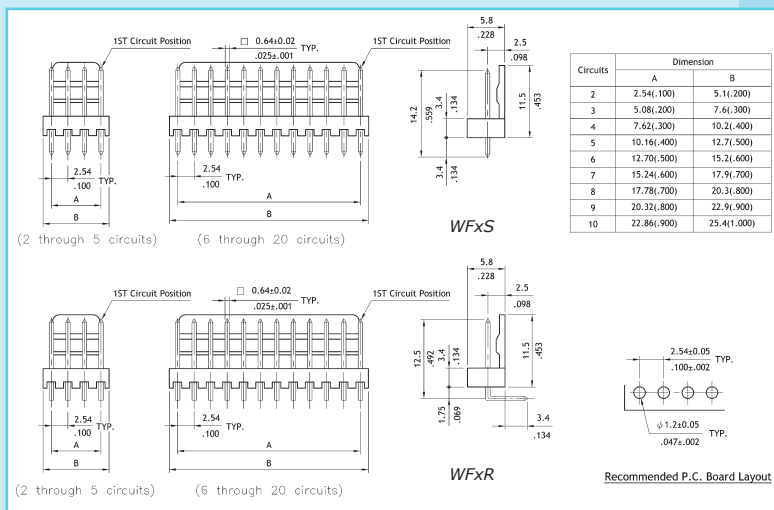
HUXx

Connectors 2.54mm

- HU2
- HU3
- HU4
- HU5
- HU6
- HU7
- HU8
- HU10
- WF2S
- WF3S
- WF4S
- WF5S
- WF6S
- WF7S
- WF8S
- WF10S

- Crimp Terminal Conn. 2.54mm 2P 3A/250V
- Crimp Terminal Conn. 2.54mm 3P 3A/250V
- Crimp Terminal Conn. 2.54mm 4P 3A/250V
- Crimp Terminal Conn. 2.54mm 5P 3A/250V
- Crimp Terminal Conn. 2.54mm 6P 3A/250V
- Crimp Terminal Conn. 2.54mm 7P 3A/250V
- Crimp Terminal Conn. 2.54mm 8P 3A/250V
- Crimp Terminal Conn. 2.54mm 10P 3A/250V
- Connector PCB 2.54mm 2P 3A/250V
- Connector PCB 2.54mm 3P 3A/250V
- Connector PCB 2.54mm 4P 3A/250V
- Connector PCB 2.54mm 5P 3A/250V
- Connector PCB 2.54mm 6P 3A/250V
- Connector PCB 2.54mm 7P 3A/250V
- Connector PCB 2.54mm 8P 3A/250V
- Connector PCB 2.54mm 10P 3A/250V

	1-9	10-99	100-499	500+
HU2	0.042	0.0239	0.0172	0.0150
HU3	0.060	0.0343	0.0246	0.0214
HU4	0.066	0.0410	0.0312	0.0274
HU5	0.081	0.0504	0.0383	0.0336
HU6	0.098	0.0614	0.0467	0.0410
HU7	0.085	0.0639	0.0520	0.0473
HU8	0.091	0.0742	0.0605	0.0550
HU10	0.110	0.0899	0.0733	0.0666
WF2S	0.036	0.0205	0.0148	0.0128
WF3S	0.032	0.0182	0.0131	0.0114
WF4S	0.057	0.0325	0.0234	0.0203
WF5S	0.049	0.0283	0.0203	0.0177
WF6S	0.066	0.0415	0.0315	0.0277
WF7S	0.055	0.0342	0.0260	0.0228
WF8S	0.067	0.0417	0.0317	0.0278
WF10S	0.060	0.0449	0.0366	0.0333



Circuits	Dimension	
	A	B
2	2.54(100)	5.1(200)
3	5.08(200)	7.6(300)
4	7.62(300)	10.2(400)
5	10.16(400)	12.7(500)
6	12.70(500)	15.2(600)
7	15.24(600)	17.9(700)
8	17.78(700)	20.3(800)
9	20.32(800)	22.9(900)
10	22.86(900)	25.4(1000)



WFxS



WFxR

Recommended P.C. Board Layout

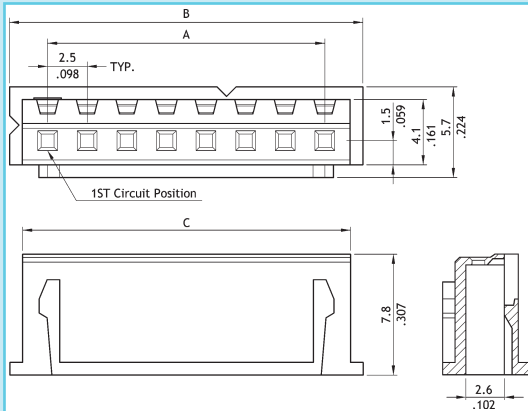
Connectors 2.54mm

1-9 10-99 100-499 500+

- WF2R
- WF3R
- WF4R
- WF5R
- WF6R
- WF8R
- WF10R

Connector 90° PCB 2.54mm 2P 3A/250V
 Connector 90° PCB 2.54mm 3P 3A/250V
 Connector 90° PCB 2.54mm 4P 3A/250V
 Connector 90° PCB 2.54mm 5P 3A/250V
 Connector 90° PCB 2.54mm 6P 3A/250V
 Connector 90° PCB 2.54mm 8P 3A/250V
 Connector 90° PCB 2.54mm 10P 3A/250V

0.036	0.0205	0.0148	0.0128
0.042	0.0238	0.0171	0.0149
0.045	0.0283	0.0215	0.0188
0.051	0.0317	0.0241	0.0212
0.061	0.0383	0.0291	0.0255
0.076	0.0477	0.0362	0.0318
0.096	0.0601	0.0457	0.0401



Circuits	Dimension		
	A	B	C
2	2.5(.098)	7.3(.287)	5.6(.220)
3	5.0(.197)	9.8(.386)	8.1(.319)
4	7.5(.295)	12.3(.484)	10.6(.417)
5	10.0(.394)	14.8(.583)	13.1(.516)
6	12.5(.492)	17.3(.681)	15.6(.614)
7	15.0(.591)	19.8(.780)	18.1(.713)
8	17.5(.689)	22.3(.878)	20.6(.811)
9	20.0(.787)	24.8(.976)	23.1(.909)

Connectors 2.50mm

1-9 10-99 100-499 500+

- HS02
- HS03
- HS04
- HS05
- HS06
- HS07
- HS09

- WS02S
- WS03S
- WS04S
- WS05S
- WS06S
- WS07S
- WS09S
- WS02R
- WS03R
- WS04R

Crimp Term.Conn.2.50mm 2P 3A/250V
 Crimp Term.Conn.2.50mm 3P 3A/250V
 Crimp Term.Conn.2.50mm 4P 3A/250V
 Crimp Term.Conn.2.50mm 5P 3A/250V
 Crimp Term.Conn.2.50mm 6P 3A/250V
 Crimp Term.Conn.2.50mm 7P 3A/250V
 Crimp Term.Conn.2.50mm 9P 3A/250V

 Connector PCB 2.50mm 2P 3A/250V
 Connector PCB 2.50mm 3P 3A/250V
 Connector PCB 2.50mm 4P 3A/250V
 Connector PCB 2.50mm 5P 3A/250V
 Connector PCB 2.50mm 6P 3A/250V
 Connector PCB 2.50mm 7P 3A/250V
 Connector PCB 2.50mm 9P 3A/250V
 Connector PCB 2.50mm 2P 3A/250V 90°
 Connector PCB 2.50mm 3P 3A/250V 90°
 Connector PCB 2.50mm 4P 3A/250V 90°

0.035	0.022	0.017	0.015
0.036	0.027	0.022	0.020
0.037	0.033	0.028	0.026
0.045	0.041	0.035	0.032
0.054	0.049	0.042	0.039
0.072	0.065	0.055	0.051
0.092	0.083	0.071	0.065
0.025	0.016	0.012	0.011
0.029	0.018	0.014	0.012
0.055	0.034	0.026	0.023
0.039	0.029	0.024	0.022
0.041	0.031	0.025	0.023
0.042	0.038	0.033	0.030
0.050	0.045	0.039	0.036
0.029	0.018	0.014	0.012
0.033	0.025	0.020	0.018
0.037	0.028	0.022	0.020

WSxxS

WSxxR

Circuits	Dimension		
	A	B	C
2	2.5(.098)	7.5(.295)	6.0(.236)
3	5.0(.197)	10.0(.394)	8.5(.335)
4	7.5(.295)	12.5(.492)	11.0(.433)
5	10.0(.394)	15.0(.591)	13.5(.531)
6	12.5(.492)	17.5(.689)	16.0(.630)
7	15.0(.591)	20.0(.787)	18.5(.728)
8	17.5(.689)	22.5(.886)	21.0(.827)
9	20.0(.787)	25.0(.984)	23.5(.925)

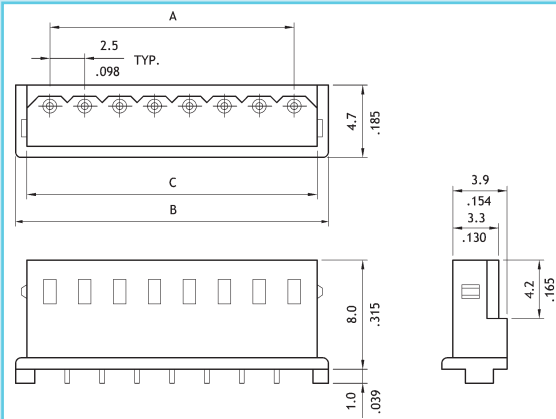
Recommended P.C. Board Layout

Connectors 2.50mm

1-9 10-99 100-499 500+

- WS05R** Connector PCB 2.50mm 5P 3A/250V 90°
- WS06R** Connector PCB 2.50mm 6P 3A/250V 90°
- WS07R** Connector PCB 2.50mm 7P 3A/250V 90°
- WS09R** Connector PCB 2.50mm 9P 3A/250V 90°

0.038	0.028	0.023	0.021
0.044	0.033	0.027	0.024
0.056	0.046	0.037	0.034
0.069	0.057	0.046	0.042

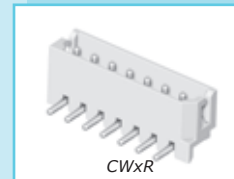
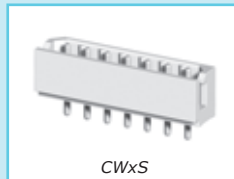
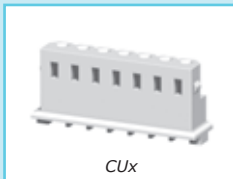


Circuits	Dimension		
	A	B	C
2	2.5(.098)	7.4(.291)	5.9(.232)
3	5.0(.197)	9.9(.390)	8.4(.331)
4	7.5(.295)	12.4(.488)	10.9(.429)
5	10.0(.394)	14.9(.587)	13.4(.528)
6	12.5(.492)	17.4(.685)	15.9(.626)
7	15.0(.591)	19.9(.783)	18.4(.724)
8	17.5(.689)	22.4(.882)	20.9(.823)
9	20.0(.787)	24.9(.980)	23.4(.921)

- CU2** Crimp Term.Conn.2.50mm 2P 3A/250V
- CU3** Crimp Term.Conn.2.50mm 3P 3A/250V
- CU7** Crimp Term.Conn.2.50mm 7P 3A/250V
- CU8** Crimp Term.Conn.2.50mm 8P 3A/250V
- CU9** Crimp Term.Conn.2.50mm 9P 3A/250V
- CW2S** Connector PCB 2.50mm 2P 3A/250V
- CW3S** Connector PCB 2.50mm 3P 3A/250V

1-9 10-99 100-499 500+

0.032	0.020	0.015	0.013
0.034	0.025	0.021	0.019
0.069	0.052	0.042	0.038
0.073	0.060	0.049	0.044
0.081	0.066	0.054	0.049
0.023	0.015	0.011	0.010
0.024	0.018	0.015	0.013



Circuits	Dimension		
	A	B	C
2	2.5(.098)	7.5(.295)	6.0(.236)
3	5.0(.197)	10.0(.394)	8.5(.335)
4	7.5(.295)	12.5(.492)	11.0(.433)
5	10.0(.394)	15.0(.591)	13.5(.531)
6	12.5(.492)	17.5(.689)	16.0(.630)
7	15.0(.591)	20.0(.787)	18.5(.728)
8	17.5(.689)	22.5(.886)	21.0(.827)
9	20.0(.787)	25.0(.984)	23.5(.925)

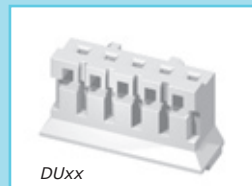
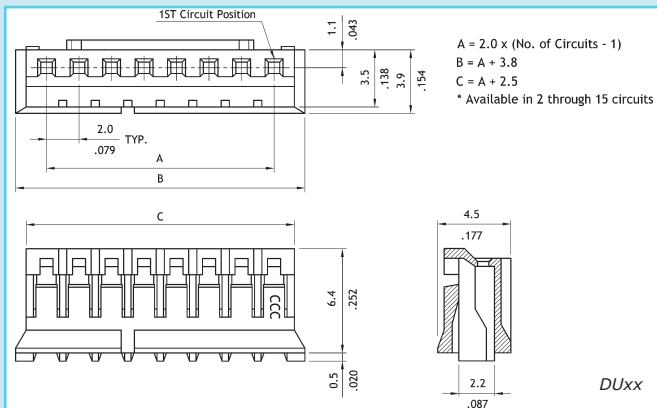
Recommended P.C. Board Layout

Connectors 2.50mm

- CW7S
- CW8S
- CW9S
- CW2R
- CW3R
- CW7R
- CW8R
- CW9R

Connector PCB 2.50mm 7P 3A/250V
 Connector PCB 2.50mm 8P 3A/250V
 Connector PCB 2.50mm 9P 3A/250V
 Connector PCB 90° 2.50mm 3P 3A/250V
 Connector PCB 90° 2.50mm 3P 3A/250V
 Connector PCB 90° 2.50mm 7P 3A/250V
 Connector PCB 90° 2.50mm 8P 3A/250V
 Connector PCB 90° 2.50mm 9P 3A/250V

	1-9	10-99	100-499	500+
CW7S	0.047	0.035	0.028	0.026
CW8S	0.052	0.039	0.032	0.029
CW9S	0.055	0.045	0.037	0.033
CW2R	0.028	0.018	0.013	0.012
CW3R	0.035	0.022	0.016	0.014
CW7R	0.050	0.037	0.030	0.028
CW8R	0.046	0.042	0.035	0.033
CW9R	0.050	0.046	0.039	0.036

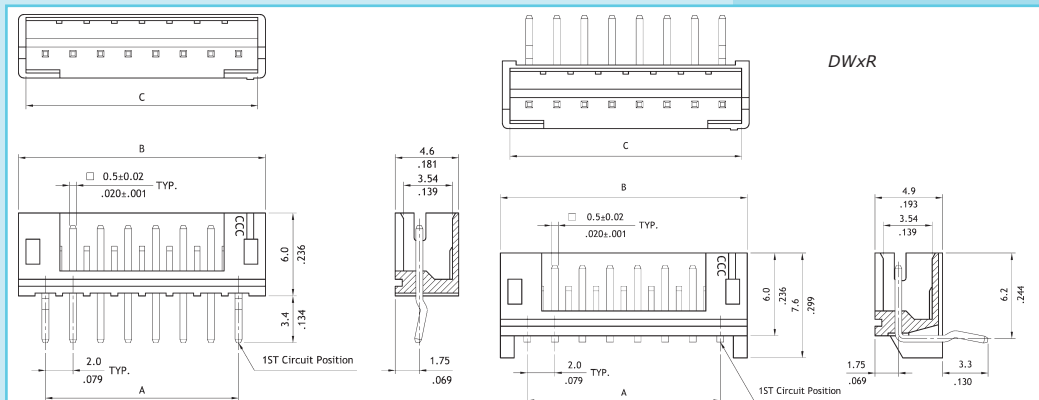
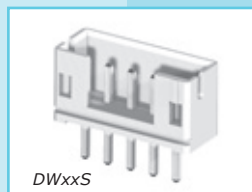
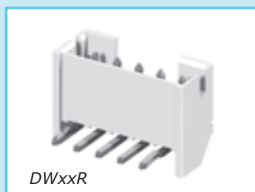


Connectors 2.00mm

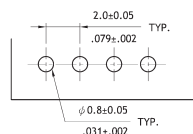
- DU02
- DU03
- DU04
- DU05
- DU06

Crimp Term.Conn. 2mm 2P 2A/250V
 Crimp Term.Conn. 2mm 3P 2A/250V
 Crimp Term.Conn. 2mm 4P 2A/250V
 Crimp Term.Conn. 2mm 5P 2A/250V
 Crimp Term.Conn. 2mm 6P 2A/250V

	1-9	10-99	100-499	500+
DU02	0.041	0.031	0.025	0.023
DU03	0.046	0.034	0.028	0.025
DU04	0.058	0.043	0.035	0.032
DU05	0.072	0.054	0.044	0.040
DU06	0.088	0.066	0.054	0.049



Circuits	Dimension		
	A	B	C
2	2.0(.079)	6.0(.236)	4.9(.193)
3	4.0(.157)	8.0(.315)	6.9(.272)
4	6.0(.236)	10.0(.394)	8.9(.350)
5	8.0(.315)	12.0(.472)	10.9(.429)
6	10.0(.394)	14.0(.551)	12.9(.508)
7	12.0(.472)	16.0(.630)	14.9(.587)
8	14.0(.551)	18.0(.709)	16.9(.665)
9	16.0(.630)	20.0(.787)	18.9(.744)



Recommended P.C. Board Layout

Connectors 2.00mm

		1-9	10-99	100-499	500+
DW02S	Connector PCB 2mm 2P 2A/250V	0.026	0.016	0.012	0.011
DW03S	Connector PCB 2mm 3P 2A/250V	0.026	0.020	0.016	0.015
DW04S	Connector PCB 2mm 4P 2A/250V	0.027	0.021	0.017	0.015
DW05S	Connector PCB 2mm 5P 2A/250V	0.035	0.026	0.021	0.019
DW06S	Connector PCB 2mm 6P 2A/250V	0.042	0.032	0.026	0.023
DW02R	Connector PCB 90° 2mm 2P 2A/250V	0.043	0.027	0.020	0.018
DW03R	Connector PCB 90° 2mm 3P 2A/250V	0.037	0.028	0.023	0.021
DW04R	Connector PCB 90° 2mm 4P 2A/250V	0.032	0.024	0.020	0.018
DW05R	Connector PCB 90° 2mm 5P 2A/250V	0.040	0.030	0.024	0.022
DW06R	Connector PCB 90° 2mm 6P 2A/250V	0.046	0.035	0.028	0.026
DWS02R SMD	Connector PCB 90° SMD 2mm 2P 2A/250V	0.362	0.226	0.172	0.151
DWS04R SMD	Connector PCB 90° SMD 2mm 4P 2A/250V	0.413	0.258	0.196	0.172

Circuits	Dimension		
	A	B	C
2	1.25(.049)	4.3(.169)	2.95(.116)
3	2.50(.098)	5.5(.217)	4.20(.165)
4	3.75(.148)	6.8(.268)	5.45(.215)
5	5.00(.197)	8.0(.315)	6.70(.264)
6	6.25(.246)	9.3(.366)	7.95(.313)
7	7.50(.295)	10.5(.413)	9.20(.362)
8	8.75(.344)	11.8(.465)	10.45(.411)
9	10.00(.394)	13.0(.512)	11.70(.461)
10	11.25(.443)	14.3(.563)	12.95(.510)

Connectors 1.25mm

		1-9	10-99	100-499	500+
SU02	Crimp Term.Conn.1.25mm 2P 1A/100V	0.050	0.038	0.031	0.028
SU04	Crimp Term.Conn.1.25mm 4P 1A/100V	0.075	0.056	0.046	0.042
SU06	Crimp Term.Conn.1.25mm 6P 1A/100V	0.099	0.081	0.066	0.060
SU08	Crimp Term.Conn.1.25mm 8P 1A/100V	0.129	0.106	0.086	0.078
SU10	Crimp Term.Conn.1.25mm 10P 1A/100V	0.155	0.127	0.103	0.094
WU02S	Connector PCB 1.25mm 2P 1A/100V	0.103	0.084	0.069	0.062
WU04S	Connector PCB 1.25mm 4P 1A/100V	0.138	0.113	0.092	0.084
WU06S	Connector PCB 1.25mm 6P 1A/100V	0.158	0.143	0.122	0.113
WU08S	Connector PCB 1.25mm 8P 1A/100V	0.198	0.180	0.153	0.141
WU10S	Connector PCB 1.25mm 10P 1A/100V	0.236	0.214	0.182	0.168

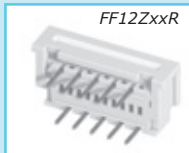
Circuits	Dimension		
	A	B	C
2	1.25(.049)	4.3(.169)	3.05(.120)
3	2.50(.098)	5.5(.217)	4.30(.169)
4	3.75(.148)	6.8(.268)	5.55(.219)
5	5.00(.197)	8.0(.315)	6.80(.268)
6	6.25(.246)	9.3(.366)	8.05(.317)
7	7.50(.295)	10.5(.413)	9.30(.366)
8	8.75(.344)	11.8(.465)	10.55(.415)
9	10.00(.394)	13.0(.512)	11.80(.465)
10	11.25(.443)	14.3(.563)	13.05(.514)

Flat Flexible Cable Connectors

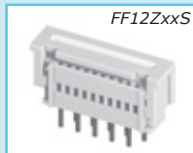
		1-9	10-99	100-499	500+
FF10L9S	Flat Flexible Cable Conn. 9p 1mm	0.171	0.155	0.132	0.122
FF10Z9S	Flat Flexible Cable Conn. 9p 1mm	0.137	0.125	0.106	0.098
FF10Z9R	Flat Flexible Cable Conn. 9p 1mm 90°	0.139	0.126	0.107	0.099

Flat Flexible Cable Connectors

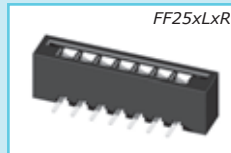
		1-9	10-99	100-499	500+
FF10L14S	Flat Flexible Cable Conn. 14p 1mm	0.180	0.163	0.139	0.129
FF10Z14RD	Flat Flexible Cable Conn. 14p 1mm 90° downside	0.153	0.138	0.118	0.109
FF10L17S	Flat Flexible Cable Conn. 17p 1mm	0.202	0.183	0.156	0.144
FF10Z30S	Flat Flexible Cable Conn. 30p 1mm	0.233	0.211	0.180	0.166
FF12L6S	Flat Flexible Cable Conn. 6p 1.25mm	0.080	0.072	0.061	0.057
FF12L20S	Flat Flexible Cable Conn. 20p 1.25mm	0.348	0.315	0.268	0.248
FF12Z20S	Flat Flexible Cable Conn. 20p 1.25mm	0.542	0.492	0.418	0.387
FF12Z20R	Flat Flexible Cable Conn. 20p 1.25mm 90°	0.542	0.492	0.418	0.387
FF12Z27S	Flat Flexible Cable Conn. 27p 1.25mm	0.740	0.671	0.571	0.529
FF12Z28S	Flat Flexible Cable Conn. 28p 1.25mm	0.847	0.768	0.653	0.605
FF25L6S	Flat Flexible Cable Conn. 6p 2.54mm	0.086	0.078	0.067	0.062
FF25L6R	Flat Flexible Cable Conn. 6p 2.54mm 90°	0.088	0.080	0.068	0.063
FF25L8S	Flat Flexible Cable Conn. 8p 2.54mm	0.085	0.077	0.066	0.061
FF25L8R	Flat Flexible Cable Conn. 8p 2.54mm 90°	0.086	0.078	0.067	0.062
FF25L9S	Flat Flexible Cable Conn. 9p 2.54mm	0.102	0.092	0.078	0.073
FF25L9R	Flat Flexible Cable Conn. 9p 2.54mm 90°	0.102	0.093	0.079	0.073
FF25L10S	Flat Flexible Cable Conn. 10p 2.54mm	0.112	0.102	0.087	0.080
FF25L10R	Flat Flexible Cable Conn. 10p 2.54mm 90°	0.132	0.120	0.102	0.094



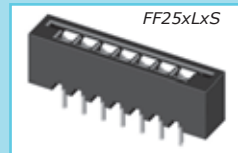
FF12ZxxR



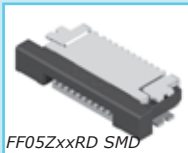
FF12ZxxS



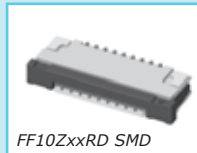
FF25xLxR



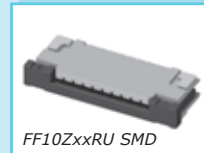
FF25xLxS



FF05ZxxRD SMD



FF10ZxxRD SMD



FF10ZxxRU SMD

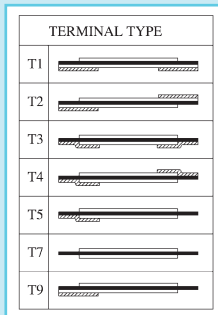
Flat Flexible Cable Connectors SMD

		1-9	10-99	100-499	500+
FF05Z20RD SMD	Flat Flexible Cable Conn. 20p 0.5mm SMD	0.292	0.265	0.225	0.209
FF05Z40RD SMD	Flat Flexible Cable Conn. 40p 0.5mm SMD	0.381	0.345	0.294	0.272
FF10Z14RD SMD	Flat Flexible Cable Conn. 14p 1mm 90° downside SMD	0.212	0.193	0.164	0.152
FF10Z24RD SMD	Flat Flexible Cable Conn. 24p 1mm 90° downside SMD	0.425	0.386	0.328	0.304
FF10Z24RU SMD	Flat Flexible Cable Conn. 24p 1mm 90° upside SMD	0.425	0.386	0.328	0.304

Flat Flexible Cables

		1-9	10-99	100-499	500+
FFC12P28-180T1	Flat Flexible Cable 1.25mm 28p L=180 Type T1	0.835	0.758	0.644	0.597
FFC10P14-50T2	Flat Flexible Cable 1mm 14p L=50 Type T2	0.241	0.219	0.186	0.172
FFC10P14-140T1	Flat Flexible Cable 1mm 14p L=140 Type T1	0.364	0.330	0.281	0.260
FFC10P16-50T1	Flat Flexible Cable 1mm 16p L=50 Type T1	0.270	0.244	0.208	0.193
FFC10P16-80T1	Flat Flexible Cable 1mm 16p L=80 Type T1	0.406	0.369	0.314	0.290
FFC05P20-110T1	Flat Flexible Cable 0.5mm 20p L=110 Type T1	0.319	0.289	0.246	0.228
FFC05P40-70T1	Flat Flexible Cable 0.5mm 40p L=70 Type T1	0.930	0.843	0.717	0.664

For quantities over 5000pcs, it is possible to be ordered custom design flat flexible cables.



Terminals KEYSTONE

		1-9	10-99	100+	1000+
KEYSTONE 1267	PC quick-fit male vert. terminal 2.8mm	0.080	0.066	0.054	0.049
KEYSTONE 1287	PC quick-fit male vert. terminal 6.3mm	0.069	0.057	0.046	0.042
KEYSTONE 1280	PC quick-fit male 45° terminal 6.3mm, rivet tipe	0.152	0.125	0.101	0.092
KEYSTONE 4095	PC quick-fit male 45° terminal 4.8mm, rivet tipe	0.124	0.102	0.083	0.075

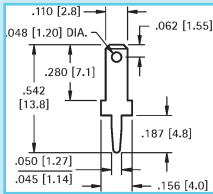
Terminals KEYSTONE

1-9 10-99 100+ 1000+

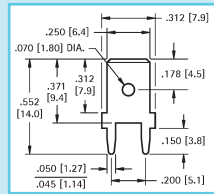
KEYSTONE 3528
KEYSTONE 4471
KEYSTONE 4966
KEYSTONE 8294

Vert terminal 6.3mm
 6.3mm quick-fit vinyl boot, clear
 PC quick fit terminal 6.3mm
 Quick slide butted seam terminal 6.3mm, insulated

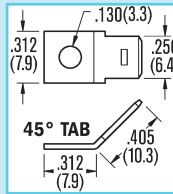
0.159	0.130	0.106	0.096
0.098	0.080	0.065	0.059
0.126	0.103	0.084	0.076
0.388	0.317	0.259	0.235



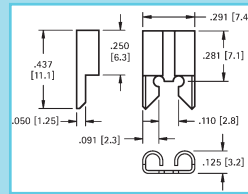
KEYSTONE 1267



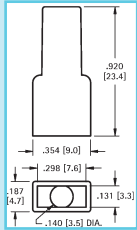
KEYSTONE 1287



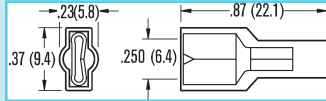
KEYSTONE 1280



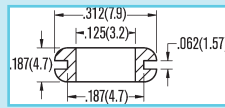
KEYSTONE 3528



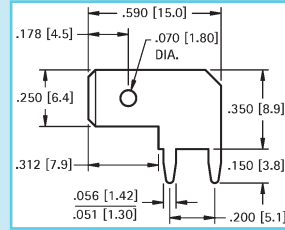
KEYSTONE 4471



KEYSTONE 8294



KEYSTONE 730



KEYSTONE 4966

Heat Shrinking Sleeve

1-4 5-24 25-99 100+

THS-002A Heat Shrinkable Tube D=2mm, Black
THS-003A Heat Shrinkable Tube D=3mm, Black
THS-004A Heat Shrinkable Tube D=4mm, Black
THS-005A Heat Shrinkable Tube D=5mm, Black
THS-007A Heat Shrinkable Tube D=7mm, Black
THS-010A Heat Shrinkable Tube D=10mm, Black

0.154	0.140	0.123	0.114
0.199	0.182	0.159	0.148
0.253	0.231	0.203	0.188
0.262	0.239	0.210	0.194
0.372	0.339	0.298	0.276
0.470	0.428	0.376	0.348

Heat Sink Isolators

1-4 5-24 25-99 100+

P-TO220 TO-220 Pad, Heat Sink Insulator, Grey Silicone
P-TO3P TO-3P Pad, Heat Sink Insulator, Grey Silicone
P-TO3 42x29x0.3mm, Pad, Heat Sink Insul. Grey Silicone
P-TO220 MICA Mica Sheet TO-220 13x18x0.1mm
P-TO3P MICA Mica Sheet TO-3P 20x25x0.1mm
P-TO3 MICA Mica Sheet TO-3 42x29x0.1mm

0.038	0.019	0.013	0.010
0.048	0.027	0.020	0.017
0.075	0.060	0.046	0.041
0.033	0.016	0.011	0.008
0.042	0.026	0.020	0.017
0.048	0.038	0.029	0.026

Isolation Bushing

1-4 5-24 25-99 100+

B-TO220 Bushing TO-220, H=1.1+1.5mm; Ø3/3.6/6.1mm
B-TO220A Bushing TO-220A, H=1.1+2mm; Ø3/3.6/6.1mm
B-TO220B Bushing TO-220B H=1.1+2.5mm; Ø3/3.6/6.1mm
B-TO220D Bushing TO-220D H=1.9+3.1mm; Ø3/3.6/6.1mm
B-TO3 Bushing TO-3, H=2+2.5mm; Ø3.1/3.8/8mm
B-TO3A Bushing TO-3A H=1.95+0.85mm; Ø3.2/4.2/7.9mm
B-TO3B Bushing TO-3B H=1.5+1.8mm; Ø3.3/4.2/8.2mm
B-TO3C Bushing TO-3C, H=2+1.7mm; Ø3.1/5.9/15.9mm

0.051	0.032	0.024	0.021
0.051	0.032	0.024	0.021
0.051	0.032	0.024	0.021
0.051	0.032	0.024	0.021
0.045	0.036	0.027	0.025
0.045	0.036	0.027	0.025
0.045	0.036	0.027	0.025
0.115	0.093	0.070	0.064

Heat Sink Caps

1-4 5-24 25-99 100+

CAP-TO220A Cap 21.5x11.5x5.9x0.5mm.HS Insul.Grey Silicone
CAP-TO220B Cap 16.0x11.5x5.9x0.5mm.HS Insul.Grey Silicone
CAP-TO220C Cap 21.8x12.1x6.5x0.8mm.HS Insul.Grey Silicone
CAP-TO3PA Cap 28.5x17.5x5.9x0.5mm.HS Insul.Grey Silicone
CAP-TO3PB Cap 28.8x18.2x6.6x0.8mm.HS Insul.Grey Silicone

0.114	0.104	0.092	0.085
0.113	0.103	0.090	0.083
0.217	0.198	0.174	0.161
0.231	0.210	0.185	0.171
0.431	0.393	0.345	0.319

Mechanical Accessories

1-9 10-99 100+ 1000+

CS0610 Circuit Board Support 9.6mm
CS0813 Circuit Board Support 12.7mm
CS1016 Circuit Board Support 15.9mm
CS1219 Circuit Board Support 19.1mm
SB8 Snap Bushing Ø8
SB10 Snap Bushing Ø10
SR5R2 Snap Bushing with changeable diameter
PG16 Nylon Cable Gland PG-16
PG20 Nylon Cable Gland PG-20

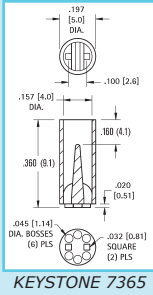
0.056	0.050	0.043	0.040
0.060	0.054	0.046	0.043
0.064	0.058	0.049	0.046
0.072	0.066	0.056	0.052
0.038	0.035	0.030	0.027
0.041	0.037	0.032	0.030
0.057	0.052	0.044	0.041
0.970	0.830	0.776	
1.182	1.012	0.945	

Mechanical Accessories KEYSTONE

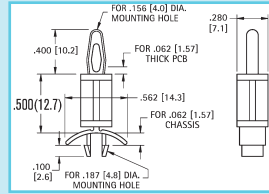
- KEYSTONE 730
- KEYSTONE 5000
- KEYSTONE 5001
- KEYSTONE 5003
- KEYSTONE 5006
- KEYSTONE 5016
- KEYSTONE 8310
- KEYSTONE 7365
- KEYSTONE 7370
- KEYSTONE 7373
- KEYSTONE 7377

Rubber grommet
 Thru-hole mount test point - red, miniature
 Thru-hole mount test point - black, miniature
 Thru-hole mount test point - orange, miniature
 Thru-hole mount test point - black
 Surface mount test point, SMD
 5mm LED Holder
 LED spacer mount 9.1mm /0.36"
 LED spacer mount 11.4mm /0.45"
 LED spacer mount 12.7mm /0.5"
 LED spacer mount 17.8mm /0.7"

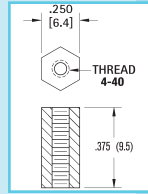
1-9	10-99	100+	1000+
0.074	0.067	0.057	0.053
0.183	0.166	0.141	0.131
0.183	0.166	0.141	0.131
0.183	0.166	0.141	0.131
0.183	0.166	0.141	0.131
0.191	0.173	0.147	0.136
0.235	0.213	0.181	0.168
0.098	0.089	0.076	0.070
0.098	0.089	0.076	0.070
0.103	0.093	0.079	0.074
0.103	0.093	0.079	0.074



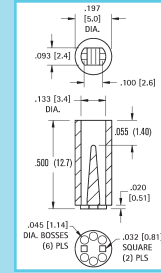
KEYSTONE 7365



KEYSTONE 8803



KEYSTONE 1902B

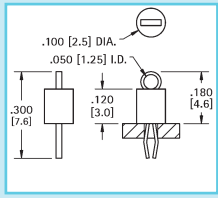


KEYSTONE 7373

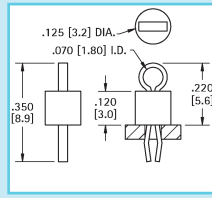
- KEYSTONE 1902B
- KEYSTONE 8803
- KEYSTONE 875
- KEYSTONE 9030
- KEYSTONE 8832
- KEYSTONE 8834
- KEYSTONE 8888
- KEYSTONE 8889
- KEYSTONE 9055
- KEYSTONE 9056
- KEYSTONE 9065

Nylon standoffs L=3/8 Th.D=4/40
 PC Tension-fit Support L=12.7mm
 Round clear hole spacer L=3.2mm
 Thru hole spacer 9.5mm
 Stacking spacer 9.5mm
 Stacking spacer 15.8mm
 PC Spacer L=3.2mm, easy lock-in
 PC Spacer L=4.7mm, easy lock-in
 PC Spacer L=3.2mm, slimline lock-in
 PC Spacer L=4.7mm, slimline lock-in
 Reverse chassis mount support L=6.4mm

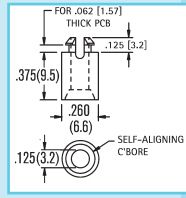
1-9	10-99	100+	1000+
0.272	0.246	0.210	0.194
0.097	0.088	0.075	0.070
0.074	0.067	0.057	0.053
0.133	0.120	0.102	0.095
0.114	0.103	0.088	0.081
0.126	0.114	0.097	0.090
0.171	0.155	0.132	0.122
0.173	0.157	0.133	0.123
0.149	0.135	0.115	0.107
0.159	0.145	0.123	0.114
0.175	0.159	0.135	0.125



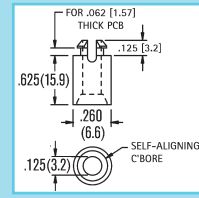
KEYSTONE 5000



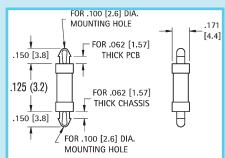
KEYSTONE 5006



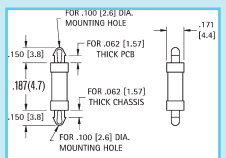
KEYSTONE 8832



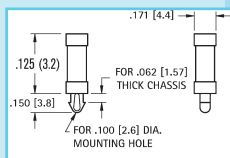
KEYSTONE 8834



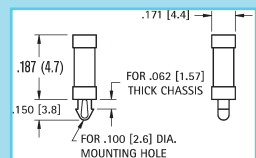
KEYSTONE 8888



KEYSTONE 8889



KEYSTONE 9055



KEYSTONE 9056

Mechanical Accessories PFLITSCH

- M16x1,5 bg216PA
- M20x1,5 bg220PA
- M25x1,5 bg225PA
- M32x1,5 bg232PA
- M40x1,5 bg240PA
- M16x1,5 bg216PAn
- M20x1,5 bg220PAn
- M25x1,5 bg225PAn
- M32x1,5 bg232PAn
- M40x1,5 bg240PAn
- M16x1,5 bg216ms
- M20x1,5 bg220ms
- M25x1,5 bg225ms
- M32x1,5 bg232ms
- M40x1,5 bg240ms

Cable Gland Plastic PA grey
 Cable Gland Plastic PA grey
 Cable Gland Plastic PA grey
 Cable Gland Plastic PA grey
 Cable Gland Plastic PA grey
 Cable Gland Plastic PA black
 Cable Gland Plastic PA black
 Cable Gland Plastic PA black
 Cable Gland Plastic PA black
 Cable Gland Plastic PA black
 Cable Gland Brass nickel plated
 Cable Gland Brass nickel plated
 Cable Gland Brass nickel plated
 Cable Gland Brass nickel plated
 Cable Gland Brass nickel plated

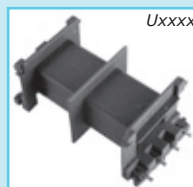
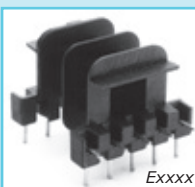
1-9	10-99	100+
0.616	0.527	0.493
0.785	0.672	0.628
1.099	0.941	0.879
2.024	1.732	1.619
3.856	3.301	3.085
0.616	0.527	0.493
0.785	0.672	0.628
1.099	0.941	0.879
2.024	1.732	1.619
3.856	3.301	3.085
2.249	1.925	1.799
2.754	2.357	2.203
3.448	2.952	2.759
7.854	6.723	6.283
11.336	9.704	9.069

Mechanical Accessories PFLITSCH

		1-9	10-99	100+	
M16x1,5	1420/216	Lock Nuts PA-GFK	0.112	0.096	0.090
M20x1,5	1420/220	Lock Nuts PA-GFK	0.151	0.129	0.120
M25x1,5	1420/225	Lock Nuts PA-GFK	0.208	0.178	0.166
M32x1,5	1420/232	Lock Nuts PA-GFK	0.505	0.432	0.404
M40x1,5	1420/240	Lock Nuts PA-GFK	1.057	0.904	0.845
M16x1,5	216/5	Lock Nuts brass nickel plated	0.262	0.224	0.210
M20x1,5	220/5	Lock Nuts brass nickel plated	0.365	0.312	0.292
M25x1,5	225/5	Lock Nuts brass nickel plated	0.575	0.492	0.460
M32x1,5	232/5	Lock Nuts brass nickel plated	0.648	0.555	0.518
M40x1,5	240/5	Lock Nuts brass nickel plated	0.941	0.805	0.753

Bobbins

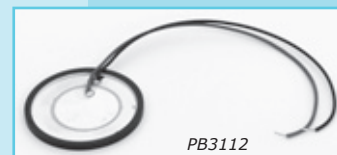
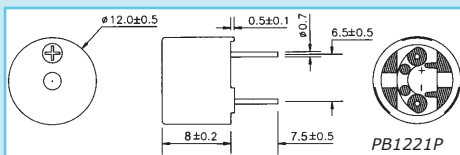
		1-4	5-24	25-99	100+
E1274HDSF	COILFORMER EF12.6 x 7 x 4 (Hor) DS (6 Pin)	0.216	0.192	0.176	0.160
E1274HBFF	COILFORMER EF12.6 x 7 x 4 Box With Feet	0.128	0.114	0.104	0.095
E1685HDSF	COILFORMER EF16 x 8 x 5 (Hor) DS (6 Pin)	0.213	0.190	0.174	0.158
E1685HBFF	BOX With Feet COILFORMER EF16 x 8 x 5	0.149	0.133	0.122	0.111
E1685HSSF	COILFORMER EF16 x 8 x 5 (Hor) SS (6 Pin)	0.223	0.198	0.182	0.165
E1685VSSF	COILFORMER EF16 x 8 x 5 (Ver) SS (6 Pin)	0.223	0.198	0.182	0.165
E2010HDSF	COILFORMER EF20 x 10 x 6 (Hor) DS (8 Pin)	0.339	0.301	0.276	0.251
E2010HDSF unpinned	COILFORMER EF20 x 10 x 6 (Hor) DS unpinned	0.339	0.301	0.276	0.251
E2010HPRF	COILFORMER EF20 (Hor) SS Primary Margin (8 Pin)	0.344	0.306	0.280	0.255
E2010HSFC	Secondary Cover EF20 (Hor)	0.172	0.153	0.140	0.128
E2010HSSF	COILFORMER EF20 x 10 x 6 (Hor) SS (8 Pin)	0.324	0.288	0.264	0.240
E2010HSSF unpinned	COILFORMER EF20 x 10 x 6 (Hor) SS unpinned, L-type	0.324	0.288	0.264	0.240
E2010HSFP	Shield Plate EF20 (Hor)	0.121	0.107	0.098	0.089
E2010VDSG	COILFORMER EF20 x 10 x 6 (Ver) DS (6 Pin)	0.307	0.273	0.250	0.228
E2513HDEF	COILFORMER EF25 x 13 x 7 (Hor) DS (8 Pin)	0.359	0.319	0.293	0.266
E2513HSEF	COILFORMER EF25 x 13 x 7 (Hor) SS (8 Pin)	0.373	0.331	0.304	0.276
E2513HDSF	COILFORMER EF25 x 13 x 7 (Hor) DS (8 Pin)	0.387	0.344	0.315	0.287
E2513HDSF unpinned	COILFORMER EF25 x 13 x 7 (Hor) DS (10 Pin - unpinned)	0.433	0.385	0.353	0.321
E2513HDSG	COILFORMER EF25 x 13 x 7 (Hor) DS (10 Pin)	0.359	0.319	0.292	0.266
E2513HSSF	COILFORMER EF25 x 13 x 7 (Hor) SS (10 Pin)	0.382	0.340	0.311	0.283
E2513VSSF	COILFORMER EF25 x 13 x 7 (Ver) SS (10 Pin)	0.382	0.340	0.311	0.283
E3015HDSF	COILFORMER E30 x 15 x 7 (Hor) DS (12 Pin)	0.423	0.376	0.344	0.313
U30075DSF	COILFORMER UI 30 x 7.5 DS (8 Pin)	0.412	0.366	0.336	0.305
U30075BSG	Box UI 30 x 7.5	0.365	0.325	0.298	0.271
U30105DSF	COILFORMER UI 30 x 10.5 DS (8 Pin)	0.418	0.371	0.340	0.309
U30105BSG	Box UI 30 x 10.5	0.385	0.342	0.314	0.285
U39080DSF	COILFORMER UI 39 x 8.0 DS (10 Pin)	0.462	0.411	0.377	0.342
U39080BSG	COILFORMER UI 39 x 8.0 Box	0.423	0.376	0.344	0.313
U39135DSF	COILFORMER UI 39 x 13.5 DS (10 Pin)	0.480	0.426	0.391	0.355
U39135BSG	Box UI 39 x 13.5	0.462	0.411	0.377	0.343
M30105DSG	COILFORMER MEI 30 x 10.5 DS Standard (23mm)(10 Pin)	0.305	0.271	0.249	0.226
M30105BSG	COILFORMER MEI 30 x 10.5 Box Standard	0.219	0.194	0.178	0.162
M30125DSG	COILFORMER MEI 30 x 12.5 DS Standard (25mm)(10 Pin)	0.306	0.272	0.249	0.227
M30125BSG	COILFORMER MEI 30 x 12.5 Box Standard	0.224	0.199	0.182	0.166
M30155DSG	COILFORMER MEI 30 x 15.5 DS Standard (28mm)(10 Pin)	0.316	0.281	0.258	0.234
M30155BSG	COILFORMER MEI 30 x 15.5 Box Standard	0.241	0.214	0.196	0.179
M30180DSG	COILFORMER MEI 30 x 18.0 DS Standard (30.5mm)(10 Pin)	0.322	0.286	0.262	0.238
M30180BSG	Box Standard MEI 30 x 18.0	0.242	0.215	0.197	0.179
M38075SDG	COILFORMER MEI 38 x 7.5 SDS (10 Pin)	0.331	0.294	0.269	0.245
M38136DSG	COILFORMER MEI 38 x 13.6 DS (10 Pin)	0.355	0.316	0.289	0.263
M38200DSG	COILFORMER MEI 38 x 20 DS (10 Pin)	0.391	0.347	0.318	0.289
M42148DSG	COILFORMER MEI 42 x 14.8 DS (12 Pin)	0.386	0.343	0.314	0.286
M42148SSF	COILFORMER MEI 42 x 14.8 SS (12 Pin)	0.420	0.373	0.342	0.311
M48168DSG	COILFORMER MEI 48 x 16.8 DS (12 Pin)	0.405	0.360	0.330	0.300
M48208DSG	COILFORMER MEI 48 x 20.8 DS (12 Pin)	0.426	0.379	0.347	0.315
M54188DSG	COILFORMER MEI 54 x 18.8 DS (12 Pin)	0.504	0.448	0.410	0.373
M54255DSG	COILFORMER MEI 54 x 25.5 DS (12 Pin)	0.512	0.455	0.417	0.379
SP-E 13/4-1471-6B S-A	COILFORMER E13/4 VER 1 SEC 6P	0.160	0.143	0.131	0.119
SP-E 13/4-1469-10B L-A	COILFORMER E13/4 HOR 1 SEC 10P	0.138	0.123	0.113	0.102
SP-E 25/7-1215-8B	COILFORMER E25/7 HOR 1 SEC 8P	0.228	0.203	0.186	0.169
SP-E 25/7-1445-8P	COILFORMER E25/7 HOR 2 SEC 8P	0.314	0.279	0.256	0.233
SP-E 25/7-1693-10B	COILFORMER E25/7 HOR 1 SEC 10P	0.214	0.191	0.175	0.159
SP-E 25/11-1418-8B L-A	COILFORMER E25/11 HOR 1 SEC 8P	0.783	0.696	0.638	0.580
SP-E 30/7 1636-12B L-A	COILFORMER E30/7 HOR 1 SEC 12P	0.302	0.269	0.246	0.224



Bobbins		1-4	5-24	25-99	100+
SP-E 30/11-1562-12B	COILFORMER E30/11 HOR 1 SEC 12P	0.895	0.796	0.730	0.663
SP-E 32/9-1352-12B	COILFORMER E32/9 HOR. 1 SEC 12P	0.667	0.593	0.543	0.494
SP-E 32/9-1481-12B	COILFORMER E32/9 HOR. 2 SEC 12P	0.737	0.656	0.601	0.546
SP-E 36/11-16B	COILFORMER E36/11 HOR 15EC 16P	2.027	1.802	1.652	1.502
SP-E 42/15-1494-10B	COILFORMER E42/15 HOR 1 SEC 10P	1.188	1.056	0.968	0.880
SP-E 42/20-1690-14B	COILFORMER E42/20 HOR 1 SEC 14P	1.737	1.544	1.415	1.287
SP-E 42/20-1692-14B	COILFORMER E42/20 HOR 2 SEC 14P	1.737	1.544	1.415	1.287

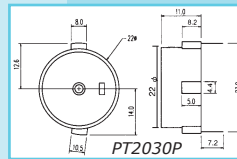
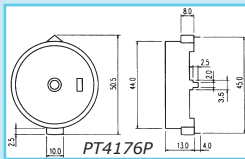
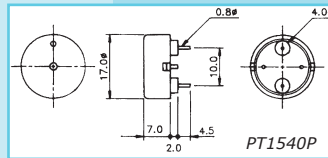
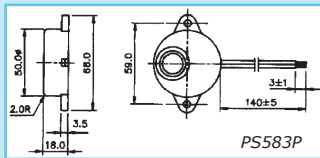
Indicator Lights		1-4	5-24	25-99	100+
N-703 220V RED	Indicator Light 12 mm Neon 220V	0.859	0.731	0.668	0.636
N-705L 12V RED	Indicator Light 10 mm LED, 12V	0.882	0.751	0.686	0.653
N-705L 12V GREEN	Indicator Light 10 mm LED, 12V	0.924	0.787	0.718	0.684
N-802 220V RED	Indicator Light 12x12 Neon 220V	0.476	0.406	0.371	0.353
N-802 220V GREEN	Indicator Light 12x12 Neon 220V	0.481	0.410	0.374	0.356
N-802 220V ORANGE	Indicator Light 12x12 Neon 220V	0.481	0.410	0.374	0.356
N-802P 12V RED	Indicator Light 12x12 mm, 12V	0.480	0.409	0.373	0.356
N-802P 12V ORANGE	Indicator Light 12x12 mm, 12V	0.480	0.409	0.373	0.356
N-804 220V RED	Indicator Light 14 mm Neon 220V	0.472	0.402	0.367	0.349
N-804 220V ORANGE	Indicator Light 14 mm Neon 220V	0.472	0.402	0.367	0.349
N-804 220V O.GREEN	Indicator Light 14 mm Neon 220V	0.628	0.535	0.488	0.465
N-804 220V N GREEN	Indicator Light 14 mm Neon 220V	0.476	0.406	0.371	0.353
N-804P 12V RED	Indicator Light 14 mm, 12V	0.560	0.477	0.436	0.415
N-804P 12V GREEN	Indicator Light 14 mm, 12V	0.560	0.477	0.436	0.415
N-809 220V RED	Indicator Light 19 mm Neon 220V	0.507	0.432	0.394	0.375
N-809P-12V RED	Indicator Light 19 mm, 12V	0.558	0.476	0.434	0.414
N-810-220V RED	Indicator Light 20 mm Neon 220V	0.518	0.441	0.403	0.384
N-810P-12V RED	Indicator Light 20 mm, 12V	0.544	0.463	0.423	0.403
N-813-12V RED	Indicator Light 23x23 mm, 12V	0.670	0.571	0.521	0.496
N-813-220V RED	Indicator Light 23x23 mm Neon 220V	0.676	0.576	0.526	0.501
N-814 220V RED	Indicator Light 9 mm Neon 220V	0.465	0.396	0.362	0.345
N-814 220V O. GREEN	Indicator Light 9 mm Neon 220V	0.614	0.523	0.478	0.455
N-814 220V N GREEN	Indicator Light 9 mm Neon 220V	0.470	0.400	0.366	0.348
N-814 220V ORANGE	Indicator Light 9 mm Neon 220V	0.465	0.396	0.362	0.345
N-814L-12V RED	Indicator Light 9 mm LED, 12V	0.487	0.415	0.379	0.361
N-814L-12V GREEN	Indicator Light 9 mm LED, 12V	0.516	0.439	0.401	0.382
N-814L-12V ORANGE	Indicator Light 9 mm LED, 12V	0.516	0.439	0.401	0.382
N-814P-12V RED	Indicator Light 9 mm, 12V	0.483	0.412	0.376	0.358
N-814P-12V GREEN	Indicator Light 9 mm, 12V	0.483	0.412	0.376	0.358
N-814P-12V ORANGE	Indicator Light 9 mm, 12V	0.483	0.412	0.376	0.358
N-815 220V RED	Indicator Light 9x9 mm Neon 220V	0.469	0.400	0.365	0.347
N-815 220V GREEN	Indicator Light 9x9 mm Neon 220V	0.469	0.400	0.365	0.347
N-815 220V ORANGE	Indicator Light 9x9 mm Neon 220V	0.469	0.400	0.365	0.347
N-815L-12V RED	Indicator Light 9x9 mm LED, 12V	0.469	0.400	0.365	0.347
N-815L-12V GREEN	Indicator Light 9x9 mm LED, 12V	0.485	0.413	0.377	0.359
N-815L-12V ORANGE	Indicator Light 9x9 mm LED, 12V	0.485	0.413	0.377	0.359
N-815P-12V RED	Indicator Light 9x9 mm, 12V	0.478	0.407	0.372	0.354
N-815P-12V GREEN	Indicator Light 9x9 mm, 12V	0.499	0.425	0.388	0.370
N-815P-12V ORANGE	Indicator Light 9x9 mm, 12V	0.499	0.425	0.388	0.370

Buzzers and Microphones		1-4	5-24	25-99	100+	500+
PB1221P	1.1-1.7V, 2048Hz, Ø12mm	0.178	0.160	0.148	0.137	0.127
PB1224M-12-H	8-16V, 2400Hz, 12, 6x12.6mm, SMD	0.766	0.690	0.635	0.591	0.547
PB12N24M-05	4-7V, 2400Hz, 12, 6x12,6mm, SMD	1.146	1.031	0.950	0.884	0.819
PB3112	30Vp-p, 500-10KHz, Ø35mm	0.367	0.343	0.318	0.296	0.276
PF21N30P	3-30VDC, 3kHz, Ø24mm	1.271	1.179	1.097	1.025	
PF21N30P	3-30VDC, 3kHz, Ø24mm	1.549	1.436	1.336	1.249	
PK12N40PA	3-15VDC, 4.1kHz, Ø13.8mm	0.854	0.792	0.737	0.689	
PK12N40PE	3-15VDC, 4.1kHz, Ø13.8mm	0.764	0.709	0.659	0.616	
PK20N38P	3-28VDC, 3.8kHz, Ø23.4mm	0.984	0.912	0.849	0.793	
PK21N30P	1.5-30VDC, 3kHz, Ø24mm	0.981	0.910	0.847	0.791	
PK27A35W	3-24VDC, 3.5kHz, Ø30mm	1.423	1.319	1.228	1.147	
PL21N30P	3-28VDC, 3kHz, Ø24mm	1.287	1.194	1.111	1.038	
PLD21N30P	3-30VDC, 3kHz, Ø24mm	1.562	1.448	1.347	1.259	
PLD27N25P	3-28VDC, 2.5kHz, Ø30mm	1.894	1.757	1.635	1.528	
PMZ12490BD0	4.9kHz, 17nF, Ø12mm	0.247	0.222	0.205	0.191	0.177
PMZ15580BD0	5.8kHz, 10nF, Ø15mm	0.126	0.114	0.105	0.098	0.090
PMZ20380BIO	3.8kHz, 25nF, Ø20mm	0.142	0.128	0.118	0.109	0.101
PMZ31130TDO	1.3kHz, 43nF, Ø31mm	0.384	0.345	0.318	0.296	0.274
PMZ35260BS	2.6kHz, 30nF, Ø35mm	0.283	0.255	0.235	0.218	0.202



Buzzers and Microphones

		1-4	5-24	25-99	100+	500+
PMZ41070B00	0.7kHz, 70nF, Ø41mm	0.539	0.503	0.466	0.434	0.405
PMZ50280B00	2.8kHz, 35nF, Ø50mm	0.450	0.405	0.373	0.347	0.321
PS520	12VDC, 2.5-3.5KHz, Ø37mm, constant tone	4.608	4.273	3.976	3.716	
PS523A	12VDC, 1.5-4KHz, Ø37mm, fast tone	4.445	4.122	3.835	3.585	
PS583	6-14VDC, 1.5-3.5KHz, Ø50mm	3.336	3.094	2.879	2.690	
PT1240P	20Vp-p, 4.1KHz, Ø13.8mm	0.627	0.581	0.541	0.505	
PT1250W	25Vp-p, 4.8KHz, Ø13.8mm	0.461	0.430	0.399	0.371	0.347
PT1540P	25Vp-p, 4KHz, Ø17mm	0.245	0.220	0.203	0.189	0.175
PT2030P	25Vp-p, 2-5KHz, Ø23mm	0.519	0.484	0.449	0.418	
PT2038W	30Vp-p, 3.8KHz, Ø24mm	0.444	0.414	0.384	0.357	0.334
PT2040P	30Vp-p, 4KHz, Ø22mm	0.353	0.329	0.305	0.284	0.265
PT2130FP	1.5-30VDC, 3-5KHz, Ø24mm	0.510	0.476	0.441	0.410	0.384
PT3110P	30Vp-p, 0.6-1.6KHz, Ø34.5mm, tel.ringer	0.457	0.426	0.395	0.367	0.343
PT3110W	30Vp-p, 0.6-1.6KHz, Ø34.5mm, tel.ringer	0.492	0.458	0.425	0.396	0.370
PT4176P	30Vp-p, telephone ringer, Ø44mm	0.947	0.878	0.817	0.764	
PMU-8050WA	Uni-directional Condenser Microphone -47dB 8mm	0.576	0.535	0.497	0.465	
ECM30B	Microphone Condenser -61dB 9.83mm	0.426	0.384	0.353	0.329	0.305
ECM60PC	Microphone Condenser -64dB 9.83mm	0.308	0.278	0.255	0.238	0.220
TH310	Dynamic Trans./Receiver 150 Ohm Ø31mm	1.063	0.986	0.917	0.857	



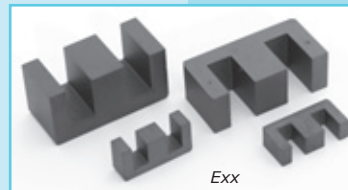
Crystals

		1-9	10-99	100-999	1000+
QCT32768 (2x6)	crystal Fund 32.768kHz 2X6 mm 20ppm 12.5pF -20+70°C	0.115	0.095	0.087	0.074
QCT32768 (3x8) RoHS	crystal Fund 32.768kHz 3X8 mm 20ppm 12.5pF -20+70°C	0.078	0.065	0.060	0.051
Q1.8432 MHz HC-49U	crystal Fund 1.8432 MHz HC49U 20ppm 20pF -20+70°C	0.471	0.389	0.359	0.304
Q2.4576 MHz HC-49U	crystal Fund 2.4576 MHz HC49U 20ppm 20pF -20+70°C	0.407	0.336	0.310	0.262
Q3.2768 MHz HC-49U	crystal Fund 3.2768 MHz HC49U 20ppm 20pF -20+70°C	0.226	0.187	0.172	0.146
Q3.579545 MHz HC-49U	crystal Fund 3.5795 MHz HC49U 20ppm 20pF -20+70°C	0.203	0.167	0.154	0.131
Q3.579545 MHz HC-49S	crystal Fund 3.5795 MHz HC49S 20ppm 20pF -20+70°C	0.194	0.160	0.147	0.125
Q3.6864 MHz HC-49U	crystal Fund 3.6864 MHz HC49U 20ppm 20pF -20+70°C	0.203	0.167	0.154	0.131
Q3.6864 MHz HC-49S	crystal Fund 3.6864 MHz HC49S 20ppm 20pF -20+70°C	0.194	0.160	0.147	0.125
Q4.000 MHz HC-49U	crystal Fund 4.000 MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q4.000 MHz HC-49S	crystal Fund 4.000 MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q4.032 MHz HC-49U	crystal Fund 4.032 MHz HC49U 20ppm 20pF -20+70°C	0.190	0.157	0.144	0.122
Q4.194304 MHz HC-49U	crystal Fund 4.194304MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q4.433619 MHz HC-49U	crystal Fund 4.433619MHz HC49U 20ppm 20pF -20+70°C	0.218	0.180	0.166	0.141
Q4.9152 MHz HC-49U	crystal Fund 4.9152 MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q4.9152 MHz HC-49S	crystal Fund 4.9152 MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q5.000 MHz HC-49U	crystal Fund 5.000 MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q6.000 MHz HC-49U	crystal Fund 6.000 MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q6.000 MHz HC-49S	crystal Fund 6.000 MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q6.400 MHz HC-49U	crystal Fund 6.400 MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q6.400 MHz HC-49S	crystal Fund 6.400 MHz HC49S 20ppm 20pF -20+70°C	0.211	0.174	0.160	0.136
Q7.3728 MHz HC-49U	crystal Fund 7.3728 MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q7.3728 MHz HC-49S	crystal Fund 7.3728 MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q8.000 MHz HC-49U	crystal Fund 8.000 MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q8.000 MHz HC-49S	crystal Fund 8.000 MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q8.192 MHz HC-49U	crystal Fund 8.192 MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q8.867238 MHz HC-49U	crystal Fund 8.867238 MHz HC49U 20ppm 20pF -20+70°C	0.236	0.195	0.180	0.152
Q9.8304 MHz HC-49S	crystal Fund 9.8304 MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q10.000 MHz HC-49U	crystal Fund 10.000MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q10.000 MHz HC-49S	crystal Fund 10.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q10.245 MHz HC-49U	crystal Fund 10.245MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q10.245 MHz HC-49S	crystal Fund 10.245MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q11.0592 MHz HC-49U	crystal Fund 11.059MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q11.0592 MHz HC-49S	crystal Fund 11.059MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110

Crystals		1-9	10-99	100-999	1000+
Q12.000 MHz HC-49U	crystal Fund 12.000MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q12.000 MHz HC-49S	crystal Fund 12.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q13.560 MHz HC-49S	crystal Fund 13.560MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q14.7456 MHz HC-49S	crystal Fund 14.7456MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q16.000 MHz HC-49U	crystal Fund 16.000MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q16.000 MHz HC-49S	crystal Fund 16.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q18.432 MHz HC-49U	crystal Fund 18.432MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q18.432 MHz HC-49S	crystal Fund 18.432MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q19.6608 MHz HC-49U	crystal Fund 19.6608MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q20.000 MHz HC-49U	crystal Fund 20.000MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q20.000 MHz HC-49S	crystal Fund 20.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q22.1184 MHz HC-49S	crystal Fund 22.1184MHz HC49S 20ppm 20pF -20+70°C	0.172	0.142	0.131	0.111
Q24.000 MHz HC-49U	crystal Fund 24.000MHz HC49U 20ppm 20pF -20+70°C	0.191	0.158	0.146	0.123
Q24.000 MHz HC-49S	crystal Fund 24.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q25.000 MHz HC-49S	crystal Fund 25.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q26.000 MHz HC-49S	crystal Fund 26.000MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q26.45125 MHz HC-49S	crystal Fund 26.45125MHz HC49S 20ppm 20pF -20+70°C	0.170	0.141	0.130	0.110
Q30.000 MHz HC-49S	crystal Fund 30.000MHz HC49S 20ppm 20pF -20+70°C	0.177	0.146	0.135	0.114
Q40.000 MHz HC-49S	crystal 3overt. 40.000MHz HC49S 20ppm 20pF -20+70°C	0.177	0.146	0.135	0.114
Crystals SMD		1-9	10-99	100-999	1000+
QCT32768 85 SMX SMD	crystal 32.768kHz SMX pack 20ppm 12.5pF -20+70°C	0.369	0.305	0.281	0.238
Q3.579545 MHz HC-49SM SMD	crystal Fund 3.579545 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q3.6864 MHz HC-49SM SMD	crystal Fund 3.6864 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q4.000 MHz HC-49SM SMD	crystal Fund 4.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q4.9152 MHz HC-49SM SMD	crystal Fund 4.9152 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q6.000 MHz HC-49SM SMD	crystal Fund 6.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q8.000 MHz HC-49SM SMD	crystal Fund 8.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q9.216 MHz HC-49SM SMD	crystal Fund 9.216 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q10.000 MHz HC-49SM SMD	crystal Fund 10.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q11.0592 MHz HC-49SM SMD	crystal Fund 11.059 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q12.000 MHz HC-49SM SMD	crystal Fund 12.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q13.560 MHz HC-49SM SMD	crystal Fund 13.560 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q14.7456 MHz HC-49SM SMD	crystal Fund 14.7456 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q16.000 MHz HC-49SM SMD	crystal Fund 16.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q17.734 MHz HC-49SM SMD	crystal Fund 17.734 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q18.432 MHz HC-49SM SMD	crystal Fund 18.432 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q20.000 MHz HC-49SM SMD	crystal Fund 20.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q22.1184 MHz HC-49SM SMD	crystal Fund 22.1184 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q24.000 MHz HC-49SM SMD	crystal Fund 24.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q25.000 MHz HC-49SM SMD	crystal Fund 25.000 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q28.63636 MHz HC-49SM SMD	crystal Fund 28.63636 MHz SMD 30ppm 18pF -20+70°C	0.241	0.199	0.183	0.155
Q29.4912 MHz HC-49SM SMD	crystal Fund 29.4912 MHz SMD 20ppm 20pF -20+70°C	0.241	0.199	0.183	0.155
Q10.000 MHz XG(6x3.5) SMD	crystal Fund 10.000 MHz SMD 10ppm 20pF -20+70°C	0.618	0.511	0.471	0.399
Q16.000 MHz XG(6x3.5) SMD	crystal Fund 16.000 MHz SMD 10ppm 16pF -20+70°C	0.618	0.511	0.471	0.399
Q25.000 MHz XG(6x3.5) SMD	crystal Fund 25.000 MHz SMD 10ppm 20pF -20+70°C	0.618	0.511	0.471	0.399
Q27.000 MHz XG(6x3.5) SMD	crystal Fund 27.000 MHz SMD 20ppm 20pF -20+70°C	0.618	0.511	0.471	0.399
Q30.000 MHz XG(6x3.5) SMD	crystal Fund 30.000 MHz SMD 30ppm 20pF -20+70°C	0.618	0.511	0.471	0.399
Ceramic Resonators		1-9	10-99	100-999	1000+
CR1000	Cer.r. 1MHz 0.5%/25C, ±0.3% -20+80°C	0.111	0.086	0.080	0.062
CRM0358	Cer.r. 3.58MHz 0.5%/25C, ±0.3% -20+80°C	0.062	0.048	0.045	0.034
CRM0368	Cer.r. 3.68MHz 0.5%/25C, ±0.3% -20+80°C	0.116	0.090	0.084	0.064
CRMX0358	Cer.r. 3.58MHz 0.5%/25C, ±0.3% -20+80°C, 2x30pF	0.081	0.063	0.058	0.045
CRM0400	Cer.r. 4MHz 0.5%/25C, ±0.3% -20+80°C	0.067	0.052	0.049	0.037
CRMX0400	Cer.r. 4MHz 0.5%/25C, ±0.3% -20+80°C, 2x30pF	0.085	0.066	0.061	0.047
CRM0800	Cer.r. 8MHz 0.5%/25C, ±0.3% -20+80°C	0.082	0.064	0.059	0.046
CRMX1200	Cer.r. 12MHz 0.5%/25C, ±0.3% -20+80°C, 2x30pF	0.112	0.087	0.081	0.062
CRMX1600	Cer.r. 16MHz 0.5%/25C, ±0.3% -20+80°C, 2x30pF	0.152	0.118	0.110	0.085
Ceramic Resonators SMD		1-9	10-99	100-999	1000+
CRM0400 SMD	Cer.r. 4MHz 0.5%/25C, ±0.3% -20+80°C	0.224	0.174	0.161	0.124
CRMX0400 SMD	Cer.r. 4MHz 0.5%/25C, ±0.3% -20+80°C, 2x30pF	0.224	0.174	0.161	0.124
CRMX0600 SMD	Cer.r. 6MHz 0.5%/25C, ±0.3% -20+80°C, 2x30pF	0.224	0.174	0.161	0.124
SAW resonators and filters		1-9	10-99	100-999	1000+
SAW433.92 MHz TO39	resonator SAW 1-port 433.92MHz ±75KHz	0.282	0.219	0.204	0.157
SAW433.92 MHz SMD QCC4A	resonator SAW 1-port 433.92MHz ±75KHz SMD5x3.5mm	0.702	0.579	0.534	0.453
SAW433.92 MHz SMD SM-2	resonator SAW 1-port 433.92MHz ±75KHz SMD4x6	0.656	0.541	0.499	0.423
Ceramic Filters		1-9	10-99	100-499	500+
CF455F	Cer.filter 455KHz ±1.5kHz BW 6dB/6kHz;50dB/12.5kHz	0.416	0.350	0.327	0.297
MSU455FA(LPU455B)	Cer.filter 455KHz ±2kHz 3dB BW 10kHz	0.106	0.088	0.081	0.069
CF10.7MHz	Cer.filter 10.7MHz	0.108	0.084	0.078	0.060

Ferrite Cores KASCHKE

		1-4	5-24	25-99	100+
E13/4 K2006	AL 850 f 25-300kHz Ae 12.4mm ² Br 0.2T	0.191	0.162	0.155	0.141
E16/5 K2006	AL 1050 f 25-300kHz Ae 20.1mm ² Br 0.2T	0.196	0.167	0.160	0.145
E20/6 (EF20/5.9) K2004	AL 1300 f 10-100kHz Ae 32mm ² Br 0.2T	0.195	0.166	0.159	0.144
E20/6 (EF20/5.9) K2006	AL 1350 f 25-300kHz Ae 32mm ² Br 0.2T	0.195	0.166	0.159	0.144
E20/6 (EF20/5.9) K4000	AL 2300 f 25-400kHz Ae 32mm ² Br 0.12T	0.296	0.253	0.242	0.220
E20/6 (EF20/5.9) m.I.0.2 K2006	AL 230 f 10-100kHz Ae 32mm ² Br 0.2T	0.271	0.231	0.221	0.201
E20/11(EF20/11) K2006	AL 2600 f 25-300kHz Ae 60mm ² Br 0.2T	0.480	0.409	0.391	0.356
E25/7(EF25/7.5) K2006	AL 1900 f 25-300kHz Ae 52mm ² Br 0.2T	0.170	0.145	0.139	0.126
E25/7(EF25/7.5) K4000	AL 3200 f 400kHz Ae 52mm ² Br 0.12T	0.393	0.335	0.320	0.291
E25/7mL.0.5 K2006	AL 155 f 25-300kHz Ae 52mm ² Br 0.2T	0.356	0.304	0.290	0.264
E25/11 K2006	AL 2700 f 25-300kHz Ae 76.5mm ² Br 0.2T	0.383	0.326	0.312	0.283
E30/7.3 (m.L.0.5) K2006	AL 150 f 25-300kHz Ae 60mm ² Br 0.2T	0.410	0.349	0.334	0.304
E30/7.3 K2006	AL 1900 f 25-300kHz Ae 60mm ² Br 0.2T	0.378	0.322	0.308	0.280
E30/11 K2006	AL 2800 f 25-300kHz Ae 91.5mm ² Br 0.2T	0.737	0.628	0.600	0.546
E32/9 (EF32/9.5) K2006	AL 2300 f 25-300kHz Ae 83mm ² Br 0.2T	0.744	0.634	0.606	0.551
E36/11.5 K2006	AL 3150 f 25-300kHz Ae 123mm ² Br 0.2T	0.979	0.834	0.798	0.725
E42/15 K2006	AL 3600 f 25-300kHz Ae 180mm ² Br 0.2T	1.420	1.209	1.157	1.052
E42/20 K2006	AL 5100 f 25-300kHz Ae 233mm ² Br 0.2T	1.431	1.219	1.166	1.060
E42/20 K2004	AL 5000 f 10-100kHz Ae 233mm ² Br 0.2T	1.612	1.373	1.313	1.194
E55/21 K2004	AL 5800 f 10-100kHz Ae 350mm ² Br 0.2T	2.311	2.045	1.956	1.778
E55/21 K2006	AL 6100 f 25-300kHz Ae 350mm ² Br 0.2T	2.352	2.080	1.990	1.809
E55/21 K2008	AL 6400 f 100-500kHz Ae 350mm ² Br 0.2T	2.352	2.080	1.990	1.809
E55/25 K2004	AL 5800 f 10-100kHz Ae 350mm ² Br 0.2T	2.942	2.602	2.489	2.263
E65/27 K2004	AL 7200 f 10-100kHz Ae 540mm ² Br 0.2T	5.935	5.250	5.022	4.565
E65/27 K2006	AL 7650 f 25-300kHz Ae 540mm ² Br 0.2T	5.935	5.250	5.022	4.565
E65/27 K2008	AL 7900 f 100-500kHz Ae 540mm ² Br 0.2T	5.935	5.250	5.022	4.565
E70/32 K2004	AL 8600 f 10-100kHz Ae 685mm ² Br 0.2T	6.927	6.206	5.985	5.541
E80/20 K2004	AL 4150 f 10-100kHz Ae 390mm ² Br 0.2T	6.236	5.587	5.388	4.989
E80/20 K2008	AL 4600 f 100-500kHz Ae 390mm ² Br 0.2T	5.530	4.955	4.778	4.424
E100/28 K2004	AL 5500 f 10-100kHz Ae 785mm ² Br 0.2T	12.800	11.469	11.059	10.240
SK22/13 K2006	AL 3800 f 25-300kHz Ae 63mm ² Br 0.2T	0.633	0.567	0.547	0.506
R8/4/3.8L K15000	AL 7900 Ae 7.29mm ²	0.216	0.184	0.176	0.160
R10/6/4L K10000	AL 4050 Ae 7.75mm ²	0.233	0.198	0.189	0.172
R10/6/4L K2006	AL 850 Ae 7.75mm ²	0.253	0.215	0.206	0.187
R12.5/7.5/5 K4000	AL 2000 Ae 12.2mm ²	0.253	0.215	0.206	0.187
R16/9.6/6.3L K2004	AL 1200 Ae 19.7mm ²	0.434	0.370	0.354	0.322
R16/9.6/6.3L K10000	AL 6400 Ae 19.7mm ²	0.416	0.355	0.339	0.308
R23/14/7L K4000	AL 2750 f 20-400kHz Ae 30.7mm ²	0.480	0.425	0.406	0.369
R23/14/7L K2006	AL 1450 f 20-300kHz Ae 30.7mm ²	0.500	0.443	0.423	0.385
R23/14/7L K6000	AL 4150 f 20-160kHz Ae 30.7mm ²	0.516	0.456	0.437	0.397
R25/15/10L K2004	AL 2000 f 10-100kHz Ae 48.7mm ²	0.684	0.605	0.579	0.526
R25/15/10L K2006	AL 2100 f 20-300kHz Ae 48.7mm ²	0.678	0.599	0.573	0.521
R31.5/19/12.5 K2004	AL 2500 f 10-100kHz Ae 76.3mm ²	1.243	1.099	1.052	0.956
R31.5/19/12.5 K2006	AL 2650 f 25-300kHz Ae 76.3mm ²	1.305	1.154	1.104	1.004
R34/20.5/12.5L K4000	AL 5050 f 20-400kHz Ae 82.5mm ²	1.471	1.301	1.245	1.131
R34/20.5/12.5L K5500	AL 6050 f 10-1000kHz Ae 82.5mm ²	1.311	1.159	1.109	1.008
R40/24/16 L K2004	AL 3250 f 10-100kHz Ae 124.7mm ²	1.704	1.508	1.442	1.311
R40/24/16 L K2006	AL 3400 f 25-300kHz Ae 124.7mm ²	2.126	1.881	1.799	1.635
R40/24/16 L K4000	AL 6500 f 20-400kHz Ae 124.7mm ²	2.001	1.770	1.693	1.539
R80/40/15 L K2006	AL 4350 f 25-300kHz Ae 287.9mm ²	7.836	6.932	6.631	6.028
R80/40/15 L K4000	AL 8300 f 20-400kHz Ae 287.9mm ²	9.323	8.247	7.889	7.172



Impeder Cores for HF welding KASCHKE

		1-4	5-24	25-99	100+
HZ8/4/200GF K2006	Hollow fluted rod 200mm D8/4	3.949	3.494	3.342	3.038
HZ8/3/200GF K2006	Hollow fluted rod 200mm D8/3	3.991	3.531	3.377	3.070
HZ9/4/200G K2006	Impeder rod 200mm D9/4	4.243	3.754	3.590	3.264
HZ10/3/200GF K2006	Hollow fluted rod 200mm D10/d3	4.875	4.312	4.125	3.750
HZ11/3/200GF K2006	Hollow fluted rod 200mm D11/d3	5.012	4.433	4.241	3.855
HZ12/4/200 GF K2006	Hollow fluted rod 200mm D12/d4	6.569	5.811	5.558	5.053
HZ13/5/200GF K2006	Hollow fluted rod 200mm D13/d5	6.985	6.179	5.910	5.373
HZ14/4/200GF K2006	Hollow fluted rod 200mm D14/d4	8.150	7.210	6.897	6.270
HZ15/5/200GF K2006	Hollow fluted rod 200mm D15/d5	9.663	8.548	8.176	7.433
HZ16/5/200GF K2006	Hollow fluted rod 200mm D16/d5	9.982	8.830	8.447	7.679
HZ18/6/200GF K2006	Hollow fluted rod 200mm D18/d6	10.058	8.897	8.511	7.737
HZ20/6/200GF K2006	Hollow fluted rod 200mm D20/d6	13.515	11.955	11.436	10.396
HZ22/6/200GF K2006	Hollow fluted rod 200mm D22/d6	17.461	15.446	14.774	13.431
HZ25/10/200GF K2006	Hollow fluted rod 200mm D25/d10	20.821	18.418	17.617	16.016

Impeder Cores for HF welding KASCHKE

		1-4	5-24	25-99	100+
HZ26/10/200GF K2006	Hollow fluted rod 200mm D26/d10	25.706	22.740	21.751	19.774
HZ28/13/200GF K2006	Hollow fluted rod 200mm D26/d10	26.238	23.211	22.201	20.183
HZ32/13/200GF K2006	Hollow fluted rod 200mm D32/d13	30.351	26.849	25.682	23.347
HZ33/10/200GF K2006	Hollow fluted rod 200mm D32/d13	31.798	28.129	26.906	24.460
HZ40/20/200GF K2006	Hollow fluted rod 200mm D40/d20	42.323	37.440	35.812	32.556

Pulse Flyback transformers KASCHKE

		1-4	5-24	25-99	100+
TRFSP-E16/5 063.929 TNY263/4	SP-E16/5 2x6V@0.25A 3W TNY263/4	1.656	1.465	1.401	1.274
TRFSP-E16/5 063.930 TNY263/4	SP-E16/5 2x12V@0.25A 6W TNY263/4	1.656	1.465	1.401	1.274
TRFSP-E16/5 063.931 TNY265/6	SP-E16/5 6V@0.25A +6V@0.5A 6W TNY265/6/274	1.656	1.465	1.401	1.274
TRFSP-E16/5 063.932 TNY265/6	SP-E16/5 2x12V@0.25A 6W TNY265/6/274	1.656	1.465	1.401	1.274
TRFSP-E16/5 063.933 TNY267	SP-E16/5 2x6V@0.75A 9W TNY267/277	1.656	1.465	1.401	1.274
TRFSP-E16/5 063.934 TNY267	SP-E16/5 2x12V@0.36A 9W TNY267/277	1.656	1.465	1.401	1.274
TRFSP-E30/7 066.929 TOP246	SP-E30/7 14V@3A 42W TOP247	4.407	3.898	3.729	3.390
TRFSP-E30/7 066.930 TOP246	SP-E30/7 5V@2.5A +24V@1.5A 50W TOP246	4.407	3.898	3.729	3.390
TRFSP-E30/7 066.931 TOP247	SP-E30/7 28V@2A 56W TOP247	4.407	3.898	3.729	3.390
TRFSP-E36/11 067.039 TOP247	SP-E36/11 27-30V@3.2A 96W TOP247	9.534	8.434	8.067	7.334
TRFSP-E36/11 067.043 TOP247	SP-E36/11 13-15V@4.5A 68W TOP247	7.959	7.046	6.734	6.122
TRFSP-E36/11 067.050 TOP247	SP-E36/11 24V@4A 96W TOP247	8.226	7.276	6.960	6.327
TRFSP-E20/6 094.940 TNY268	SP-E20/6 2x6V@1.5A 18W TNY268/278	1.923	1.701	1.627	1.479
TRFSP-E20/6 094.941 TNY268	SP-E20/6 2x12V@0.75A 18W TNY268/278	1.923	1.701	1.627	1.479
TRFSP-E20/6 094.943 TNY268	SP-E20/6 2x18V@0.5A 18W TNY268/278	1.923	1.701	1.627	1.479
TRFSP-E20/6 094.944 TNY267	SP-E20/6 5V@0.8A +24V@0.4A 14W TNY267/277	1.923	1.701	1.627	1.479
TRFSP-EF25/7 095.951 TOP245	SP-EF25/7 2x30V@0.75A 45W TOP245	3.605	3.189	3.051	2.773
TRFSP-EF25/7 095.952 TOP244	SP-EF25/7 2x12-14V@1A 28W TOP244	3.605	3.189	3.051	2.773
TRFSP-EF25/7 095.953TOP244	SP-EF25/7 5V@2.5A +24V@1A 34W TOP244	3.979	3.520	3.367	3.061
TRFSP-EF25/7 095.954 TOP244	SP-EF25/7 5V@2.5A +12V@1.8A 34W TOP244	3.979	3.520	3.367	3.061
TRFSP-E13/6 096.901 LNK500/1	SP-E13/6 3-4V@1A 4W LNK500/1	1.442	1.276	1.220	1.109
TRFSP-E13/6 096.902 LNK500/1	SP-E13/6 5V-6V@0.75A 4W LNK500/1	1.442	1.276	1.220	1.109
TRFSP-E13/6 096.903 LNK500/1	SP-E13/6 11-12V@0.3A 4W LNK500/1	1.442	1.276	1.220	1.109
TRFSP-E13/6 096.904 LNK500/1	SP-E13/6 14-15V@0.2A 3W LNK500/1	1.442	1.276	1.220	1.109



063.932



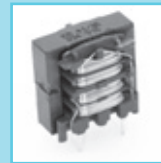
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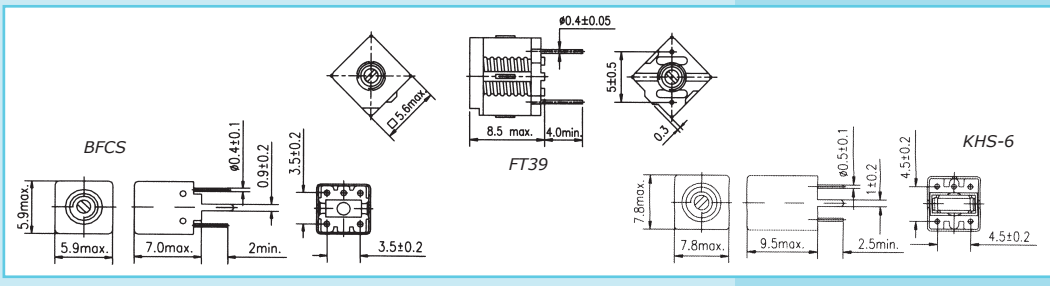
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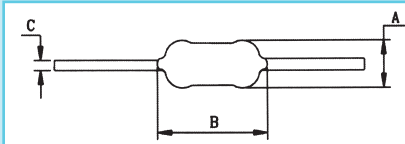
R.F. Coils

		1-9	10-99	100-499	500+
BFCS-5 0.33 uH 8218	0.33uH±3%min, Q30/25MHz	0.231	0.209	0.178	0.165
BFCS-5 0.47 uH 8219	0.47uH±3%min, Q30/25MHz	0.231	0.209	0.178	0.165
BFCS-5 1.0 uH 8220	1uH±3%min, Q30/25MHz	0.231	0.209	0.178	0.165
AF5 1mH/120pF 8221	1mH±3%min, 120pF±5%, Q35/252kHz	0.321	0.291	0.248	0.229
KHS-6 0.1 uH 1241	0.1uH±3%min, Q30/25MHz	0.183	0.166	0.141	0.131
KHS-6 0.18uH 1242	0.18uH±3%min, Q40/25MHz	0.183	0.166	0.141	0.131
KHS-6 1.0 uH 2593	1.0uH±6%min, Q50/25.2MHz	0.183	0.166	0.141	0.131
KHS-6 10 uH 1070	10uH±6%min, Q30/25.2MHz	0.151	0.137	0.117	0.108
KHS-6 10 uH A71108002	10uH±6%min, Q30/25.2MHz	0.151	0.137	0.117	0.108
KHS-6 2.7uH A71108006	2.7uH±3%min, Q35/25MHz	0.183	0.166	0.141	0.131
KHS-7 0.33uH/12pF 8222	0.33uH±6%min, 12pF±10%, Q55/25MHz	0.183	0.166	0.141	0.131
FT39 1 1/2 - 845741	1 1/2 turns, for 433 MHz, Qmin 40/100MHz	0.109	0.099	0.084	0.078
FT39 2 1/2 - 863019	2 1/2 turns	0.109	0.099	0.084	0.078
FT39 3 1/2 - 863020	3 1/2 turns	0.109	0.099	0.084	0.078
OS45 150uH 0846	150uH±6%min, Q65/1MHz	0.146	0.132	0.112	0.104
OS45 470uH 1034	470uH±6%min, Q40/796kHz	0.146	0.132	0.112	0.104
OS45 1.0mH 1033	1mH±6%min, Q60/796kHz	0.146	0.132	0.112	0.104



Fixed Inductors

		1-9	10-99	100+	500+
CL1.0uH CEC	inductor 1.0uH 0.22 ohm 590mA 20%	0.041	0.037	0.032	0.029
CL2.2uH CEC	inductor 2.2uH 0.3 ohm 515mA 20%	0.041	0.037	0.032	0.029
CL0.1uH CECS	inductor 0.1uH 0.07 ohm 1050mA 20%	0.041	0.037	0.032	0.029
CL0.22uH CECS	inductor 0.22uH 0.095 ohm 680mA 20%	0.041	0.037	0.032	0.029
CL0.47uH CECS	inductor 0.47uH 0.20 ohm 520mA 20%	0.041	0.037	0.032	0.029
CL1.0uH CECS	inductor 1.0uH 0.29 ohm 425mA 20%	0.041	0.037	0.032	0.029
CL2.2uH CECS	inductor 2.2uH 0.39 ohm 340mA 10%	0.041	0.037	0.032	0.029
CL3.3uH CECS	inductor 3.3uH 0.64 ohm 280mA 10%	0.041	0.037	0.032	0.029
CL4.7uH CECS	inductor 4.7uH 0.94 ohm 215mA 10%	0.041	0.037	0.032	0.029
CL10uH CECS	inductor 10uH 1.88 ohm 170mA 10%	0.041	0.037	0.032	0.029
CL22uH CECS	inductor 22uH 2.97 ohm 125mA 10%	0.041	0.037	0.032	0.029
CL47uH CECS	inductor 47uH 6.16 ohm 85mA 10%	0.041	0.037	0.032	0.029
CL100uH CECS	inductor 100uH 15.44 ohm 50mA 10%	0.041	0.037	0.032	0.029
CL220uH CECS	inductor 220uH 23.19 ohm 40mA 10%	0.041	0.037	0.032	0.029



MODEL	A max.	B max.	C±0.05	LENGTH	Table
CECS	2.5	4.0	0.5	63±3	P.33
CEC	3.2	7.0	0.5	63±3	P.34
CECL	4.0	9.8	0.6	63±3	P.35

		1-9	10-99	100+	500+
CL0.68uH CECL	inductor 0.68uH 0.18 ohm 1000mA 20%	0.050	0.045	0.039	0.036
CL1.0uH CECL	inductor 1.0uH 0.18 ohm 800mA 20%	0.050	0.045	0.039	0.036
CL1.5uH CECL	inductor 1.5uH 0.22 ohm 700mA 20%	0.050	0.045	0.039	0.036
CL2.2uH CECL	inductor 2.2uH 0.27 ohm 660mA 20%	0.050	0.045	0.039	0.036
CL3.3uH CECL	inductor 3.3uH 0.34 ohm 600mA 10%	0.050	0.045	0.039	0.036
CL4.7uH CECL	inductor 4.7uH 0.38 ohm 550mA 10%	0.050	0.045	0.039	0.036
CL6.8uH CECL	inductor 6.8uH 0.45 ohm 500mA 10%	0.050	0.045	0.039	0.036
CL10uH CECL	inductor 10uH 0.6 ohm 450mA 10%	0.050	0.045	0.039	0.036
CL15uH CECL	inductor 15uH 0.74 ohm 340mA 10%	0.050	0.045	0.039	0.036
CL22uH CECL	inductor 22uH 0.85 ohm 310mA 10%	0.050	0.045	0.039	0.036
CL33uH CECL	inductor 33uH 1.1 ohm 280mA 10%	0.050	0.045	0.039	0.036
CL47uH CECL	inductor 47uH 2.1 ohm 200mA 10%	0.050	0.045	0.039	0.036
CL68uH CECL	inductor 68uH 2.5 ohm 190mA 10%	0.050	0.045	0.039	0.036
CL100uH CECL	inductor 100uH 3.4 ohm 160mA 10%	0.050	0.045	0.039	0.036
CL150uH CECL	inductor 150uH 5 ohm 130mA 10%	0.050	0.045	0.039	0.036
CL220uH CECL	inductor 220uH 6.2 ohm 120mA 10%	0.050	0.045	0.039	0.036
CL330uH CECL	inductor 330uH 7.7 ohm 110mA 10%	0.052	0.048	0.040	0.037
CL470uH CECL	inductor 470uH 11.9 ohm 90mA 10%	0.050	0.045	0.039	0.036
CL680uH CECL	inductor 680uH 15.0 ohm 80mA 10%	0.050	0.045	0.039	0.036
CL1.0mH CECL	inductor 1mH 21.0 ohm 60mA 10%	0.050	0.045	0.039	0.036
CL1.5mH CECL	inductor 1.5mH 45.0 ohm 45mA 10%	0.050	0.045	0.039	0.036
CL1.0uH SW45	inductor 1.0uH 0.03 ohm 3200mA 10%	0.069	0.063	0.053	0.049
CL1.5uH SW45	inductor 1.5uH 0.0384 ohm 2700mA 10%	0.069	0.063	0.053	0.049
CL2.2uH SW45	inductor 2.2uH 0.0436 ohm 2500mA 10%	0.069	0.063	0.053	0.049
CL3.3uH SW45	inductor 3.3uH 0.0576 ohm 2100mA 10%	0.069	0.063	0.053	0.049
CL4.7uH SW45	inductor 4.7uH 0.0787 ohm 1700mA 10%	0.069	0.063	0.053	0.049
CL6.8uH SW45	inductor 6.8uH 0.097 ohm 1500mA 10%	0.069	0.063	0.053	0.049
CL10uH SW45	inductor 10uH 0.13 ohm 1300mA 10%	0.069	0.063	0.053	0.049
CL15uH SW45	inductor 15uH 0.18 ohm 1100mA 10%	0.069	0.063	0.053	0.049
CL22uH SW45	inductor 22uH 0.21 ohm 920mA 10%	0.069	0.063	0.053	0.049
CL33uH SW45	inductor 33uH 0.35 ohm 760mA 10%	0.069	0.063	0.053	0.049
CL47uH SW45	inductor 47uH 0.46 ohm 640mA 10%	0.069	0.063	0.053	0.049
CL68uH SW45	inductor 68uH 0.64 ohm 520mA 10%	0.069	0.063	0.053	0.049
CL100uH SW45	inductor 100uH 0.90 ohm 460mA 10%	0.069	0.063	0.053	0.049
CL150uH SW45	inductor 150uH 1.22 ohm 380mA 10%	0.069	0.063	0.053	0.049
CL220uH SW45	inductor 220uH 2.04 ohm 280mA 10%	0.069	0.063	0.053	0.049
CL330uH SW45	inductor 330uH 3.48 ohm 220mA 10%	0.069	0.063	0.053	0.049
CL470uH SW45	inductor 470uH 5.05 ohm 180mA 10%	0.069	0.063	0.053	0.049
CL680uH SW45	inductor 680uH 6.24 ohm 150mA 10%	0.069	0.063	0.053	0.049

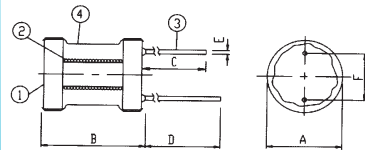


Fixed Inductors

		1-9	10-99	100+	500+
CL1.0mH SW45	<i>inductor 1mH 10.6 ohm 120mA 10%</i>	0.069	0.063	0.053	0.049
CL1.5mH SW45	<i>inductor 1.5mH 16.6 ohm 100mA 10%</i>	0.069	0.063	0.053	0.049
CL2.2mH SW45	<i>inductor 2.2mH 21.4 ohm 80mA 10%</i>	0.069	0.063	0.053	0.049
CL2.2uH SW68	<i>inductor 2.2uH 0.0147 ohm 4100mA 10%</i>	0.094	0.085	0.072	0.067
CL3.3uH SW68	<i>inductor 3.3uH 0.0185 ohm 3500mA 10%</i>	0.094	0.085	0.072	0.067
CL4.7uH SW68	<i>inductor 4.7uH 0.0218 ohm 2900mA 10%</i>	0.094	0.085	0.072	0.067
CL6.8uH SW68	<i>inductor 6.8uH 0.03220 ohm 2300mA 10%</i>	0.094	0.085	0.072	0.067
CL10uH SW68	<i>inductor 10uH 0.040 ohm 2000mA 10%</i>	0.094	0.085	0.072	0.067
CL15uH SW68	<i>inductor 15uH 0.053 ohm 1600mA 10%</i>	0.094	0.085	0.072	0.067
CL22uH SW68	<i>inductor 22uH 0.0667 ohm 1300mA 10%</i>	0.094	0.085	0.072	0.067
CL33uH SW68	<i>inductor 33uH 0.10 ohm 1000mA 10%</i>	0.094	0.085	0.072	0.067
CL47uH SW68	<i>inductor 47uH 0.14 ohm 880mA 10%</i>	0.094	0.085	0.072	0.067
CL68uH SW68	<i>inductor 68uH 0.20 ohm 770mA 10%</i>	0.094	0.085	0.072	0.067
CL100uH SW68	<i>inductor 100uH 0.26 ohm 640mA 10%</i>	0.094	0.085	0.072	0.067
CL150uH SW68	<i>inductor 150uH 0.38 ohm 530mA 10%</i>	0.094	0.085	0.072	0.067
CL220uH SW68	<i>inductor 220uH 0.60 ohm 430mA 10%</i>	0.094	0.085	0.072	0.067
CL330uH SW68	<i>inductor 330uH 0.88 ohm 350mA 10%</i>	0.094	0.085	0.072	0.067
CL470uH SW68	<i>inductor 470uH 1.20 ohm 300mA 10%</i>	0.094	0.085	0.072	0.067
CL680uH SW68	<i>inductor 680uH 1.80 ohm 240mA 10%</i>	0.094	0.085	0.072	0.067
CL1.0mH SW68	<i>inductor 1mH 2.52 ohm 200mA 10%</i>	0.094	0.085	0.072	0.067
CL1.5mH SW68	<i>inductor 1.5mH 3.1 ohm 140mA 10%</i>	0.094	0.085	0.072	0.067
CL2.2mH SW68	<i>inductor 2.2mH 6.0 ohm 140mA 10%</i>	0.094	0.085	0.072	0.067
CL3.3mH SW68	<i>inductor 3.3mH 8.4 ohm 110mA 10%</i>	0.094	0.085	0.072	0.067
CL4.7mH SW68	<i>inductor 4.7mH 13 ohm 95mA 10%</i>	0.094	0.085	0.072	0.067
CL6.8mH SW68	<i>inductor 6.8mH 17 ohm 80mA 10%</i>	0.094	0.085	0.072	0.067
CL10mH SW68	<i>inductor 10mH 30 ohm 60mA 10%</i>	0.094	0.085	0.072	0.067
CL15mH SW68	<i>inductor 15mH 39 ohm 50mA 10%</i>	0.094	0.085	0.072	0.067
CL22mH SW68	<i>inductor 22mH 61 ohm 40mA 10%</i>	0.094	0.085	0.072	0.067
CL33mH SW68	<i>inductor 33mH 93 ohm 30mA 10%</i>	0.094	0.085	0.072	0.067
CL47mH SW68	<i>inductor 47mH 120 ohm 20mA 10%</i>	0.094	0.085	0.072	0.067

DIMENSION (UNIT: mm)						
MODEL	A	B	C	D	E	F
SW45	4.2	7.0	10	15	0.5	1.8
SW68	6.2	9.5	10	15	0.6	3.0
CW8A	9	13	5	10	15	0.6

MATERIAL FOR CHOKE COILS	
PRODUCT	MATERIAL
1. Core	Ferrite core
2. Wire	Polyurethane enameled copper wires
3. Lead wire	Soldered copper wires
4. Tube	Heat shrinkable tube, PVC or UL
5. Glue	Epoxy resin

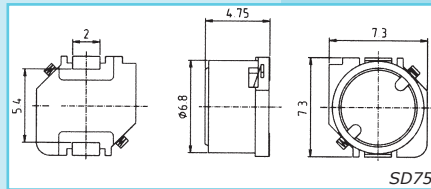
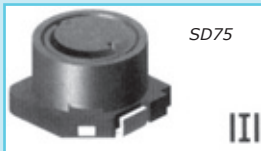
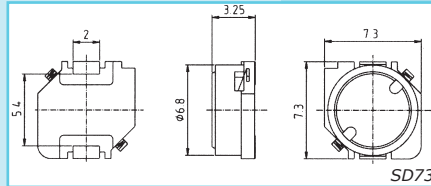


		1-9	10-99	100+	500+
CL1.0uH CW8A	<i>inductor 1.0uH 0.01 ohm 7200mA 20%</i>	0.137	0.125	0.106	0.098
CL3.3uH CW8A	<i>inductor 3.3uH 0.012 ohm 5800mA 20%</i>	0.137	0.125	0.106	0.098
CL4.7uH CW8A	<i>inductor 4.7uH 0.015 ohm 5100mA 20%</i>	0.137	0.125	0.106	0.098
CL10uH CW8A	<i>inductor 10uH 0.027 ohm 3600mA 10%</i>	0.137	0.125	0.106	0.098
CL33uH CW8A	<i>inductor 33uH 0.07 ohm 2000mA 10%</i>	0.137	0.125	0.106	0.098
CL47uH CW8A	<i>inductor 47uH 0.086 ohm 1700mA 10%</i>	0.137	0.125	0.106	0.098
CL100uH CW8A	<i>inductor 100uH 0.18 ohm 1100mA 10%</i>	0.137	0.125	0.106	0.098
CL220uH CW8A	<i>inductor 220uH 0.41 ohm 780mA 10%</i>	0.137	0.125	0.106	0.098
CL330uH CW8A	<i>inductor 330uH 0.53 ohm 720mA 10%</i>	0.137	0.125	0.106	0.098
CL470uH CW8A	<i>inductor 470uH 0.71 ohm 560mA 10%</i>	0.137	0.125	0.106	0.098
CL1.5mH CW8A	<i>inductor 1.5mH 2.2 ohm 320mA 10%</i>	0.137	0.125	0.106	0.098
CL3.3mH CW8A	<i>inductor 3.3mH 5 ohm 210mA 10%</i>	0.137	0.125	0.106	0.098
CL100uH RBQE	<i>inductor 100uH 0.06 ohm 3000mA 20%</i>	1.121	0.992	0.862	
CL220uH RBQE	<i>inductor 220uH 0.099 ohm 3000mA 20%</i>	1.214	1.074	0.934	
CL330uH RBQE	<i>inductor 330uH 0.144 ohm 1000mA 20%</i>	1.200	1.062	0.923	



Fixed Inductors

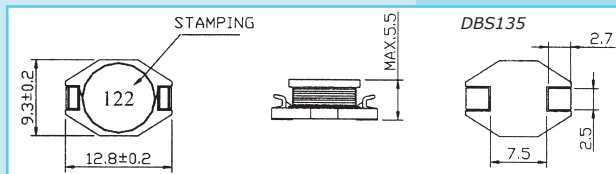
		1-9	10-99	100-499	500+
CL1.0uH SD73	inductor 1.0uH 0.025 Ohm 3.5A 20% SMD	0.513	0.465	0.396	0.366
CL2.2uH SD73	inductor 2.2uH 0.028 Ohm 1.2A 20% SMD	0.513	0.465	0.396	0.366
CL3.3uH SD73	inductor 3.3uH 0.048 Ohm 1.8A 20% SMD	0.513	0.465	0.396	0.366
CL4.7uH SD73	inductor 4.7uH 0.061 Ohm 1.5A 20% SMD	0.513	0.465	0.396	0.366
CL10uH SD73	inductor 10uH 0.094 Ohm 960mA 20% SMD	0.513	0.465	0.396	0.366
CL22uH SD73	inductor 22uH 0.18 Ohm 720mA 20% SMD	0.513	0.465	0.396	0.366
CL33uH SD73	inductor 33uH 0.26 Ohm 640mA 20% SMD	0.513	0.465	0.396	0.366
CL47uH SD73	inductor 47uH 0.35 Ohm 580mA 20% SMD	0.513	0.465	0.396	0.366
CL100uH SD73	inductor 100uH 0.74 Ohm 430mA 20% SMD	0.513	0.465	0.396	0.366
CL10uH SD75	inductor 10uH 0.074 ohm 1130mA 20% SMD	0.513	0.465	0.396	0.366
CL22uH SD75	inductor 22uH 0.120ohm 900mA 20% SMD	0.513	0.465	0.396	0.366
CL33uH SD75	inductor 33uH 0.150 ohm 750mA 20% SMD	0.513	0.465	0.396	0.366
CL47uH SD75	inductor 47uH 0.180ohm 630mA 20% SMD	0.513	0.465	0.396	0.366
CL100uH SD75	inductor 100uH 0.310 ohm 420mA 20% SMD	0.513	0.465	0.396	0.366



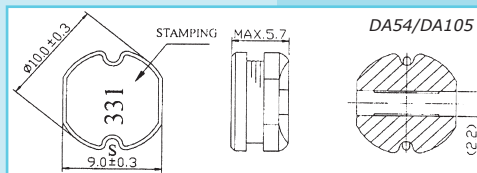
		1-9	10-99	100-499	500+
CL150uH SD75	inductor 150uH 0.440 ohm 360mA 20% SMD	0.513	0.465	0.396	0.366
CL220uH SD75	inductor 220uH 0.700 ohm 280mA 20% SMD	0.513	0.465	0.396	0.366
CL330uH SD75	inductor 330uH 1.0 ohm 230mA 20% SMD	0.513	0.465	0.396	0.366
CL15uH DBS135	inductor 15uH 0.046 ohm 3A 20%	0.444	0.403	0.342	0.317
CL22uH DBS135	inductor 22uH 0.085 ohm 2.6A 20%	0.444	0.403	0.342	0.317
CL33uH DBS135	inductor 33uH 0.100 ohm 2.1A 20%	0.444	0.403	0.342	0.317
CL47uH DBS135	inductor 47uH 0.140 ohm 1.7A 20%	0.444	0.403	0.342	0.317
CL68uH DBS135	inductor 68uH 0.2 ohm 1.5A 20%	0.444	0.403	0.342	0.317
CL150uH DBS135	inductor 150uH 0.4 ohm 1.0A 20%	0.444	0.403	0.342	0.317
CL220uH DBS135	inductor 220uH 0.61 ohm 0.8A 20%	0.444	0.403	0.342	0.317
CL330uH DBS135	inductor 330uH 0.950 ohm 0.66A 20%	0.444	0.403	0.342	0.317
CL470uH DBS135	inductor 470uH 1.27 ohm 0.53A 20%	0.444	0.403	0.342	0.317
CL680uH DBS135	inductor 680uH 2.020 ohm 0.45A 20%	0.444	0.403	0.342	0.317
CL1.2mH DBS135	inductor 1.2mH 4.4 ohm 320mA 20%	0.444	0.403	0.342	0.317
CL47uH DBS187	inductor 47uH 0.086 ohm 4.5A 20%	0.509	0.462	0.393	0.364
CL220uH DBS187	inductor 220uH 0.38 ohm 2.4A 20%	0.509	0.462	0.393	0.364
CL470uH DBS187	inductor 470uH 0.85 ohm 1.4A 20%	0.509	0.462	0.393	0.364
CL150uH DA54	inductor 150uH 0.895 ohm 350mA 10%	0.357	0.324	0.276	0.255
CL220uH DA54	inductor 220uH 1.26 ohm 450mA 10%	0.357	0.324	0.276	0.255
CL330uH DA105	inductor 330uH 1.0 ohm 600mA 10%	0.447	0.406	0.345	0.319
CL10uH DRH125	inductor 10uH 0.027 ohm 4.5A 20%	0.580	0.526	0.447	0.414
CL22uH DRH125	inductor 22uH 0.044 ohm 3.2A 20%	0.580	0.526	0.447	0.414
CL33uH DRH125	inductor 33uH 0.057 ohm 2.5A 20%	0.580	0.526	0.447	0.414



DBS135



DA54/DA105

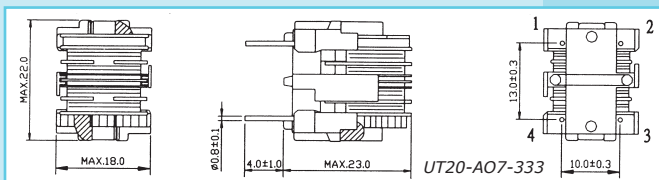


Fixed Inductors

		1-9	10-99	100+	500+
CL47uH DRH125	inductor 47uH 0.075 ohm 2.2A 20%	0.580	0.526	0.447	0.414
CL100uH DRH125	inductor 100uH 0.16 ohm 1.4A 20%	0.580	0.526	0.447	0.414
CL220uH DRH125	inductor 220uH 0.35 ohm 1.0A 20%	0.580	0.526	0.447	0.414
CL330uH DRH125	inductor 330uH 0.51 ohm 0.85A 20%	0.580	0.526	0.447	0.414
CL470uH DRH125	inductor 470uH 0.70 ohm 0.73A 20%	0.580	0.526	0.447	0.414
CL10uH DRH74	inductor 10uH 0.07 ohm 2.1A 20%	0.520	0.472	0.401	0.372
CL150uH DRH74	inductor 150uH 0.73 ohm 0.5A 20%	0.520	0.472	0.401	0.372
CL6.8nH CCFH0805 C 6N8J	Inductor 6.8nH 0.11 ohm 600mA 5%	0.126	0.114	0.097	0.090
CL10nH CCFH0805 C 10NJ	inductor 10nH 0.10 ohm 600mA 5%	0.126	0.114	0.097	0.090
CL15nH CCFH0805 C 15NJ	inductor 15nH 0.17 ohm 600mA 5%	0.126	0.114	0.097	0.090
CL22nH CCFH0805 C 22NJ	inductor 22nH 0.22 ohm 500mA 5%	0.126	0.114	0.097	0.090
CL33nH CCFH0805 C 33NJ	inductor 33nH 0.27 ohm 500mA 5%	0.126	0.114	0.097	0.090
CL36nH CCFH0805 C 36NJ	inductor 36nH 0.27 ohm 500mA 5%	0.126	0.114	0.097	0.090
CL39nH CCFH0805 C 39NG	Inductor 39nH 0.29 ohm 500mA 2%	0.126	0.114	0.097	0.090
CL47nH CCFH0805 C 47NJ	inductor 47nH 0.31 ohm 500mA 5%	0.126	0.114	0.097	0.090
CL68nH CCFH0805 C 68NJ	inductor 68nH 0.38 ohm 500mA 5%	0.126	0.114	0.097	0.090
CL82nH CCFH0805 C 82NG	Inductor 82nH 0.42 ohm 400mA 2%	0.126	0.114	0.097	0.090
CL100nH CCFH0805 C R10J	inductor 100nH 0.46 ohm 400mA 5%	0.126	0.114	0.097	0.090
CL150nH CCFH0805 C R15J	inductor 150nH 0.56 ohm 400mA 5%	0.126	0.114	0.097	0.090
CL270nH CCFH0805 C R27J	inductor 270nH 1.0 ohm 350mA 5%	0.126	0.114	0.097	0.090
CL330nH CCFH0805 C R33J	inductor 330nH 1.4 ohm 300mA 5%	0.126	0.114	0.097	0.090
CL470nH CCFH0805 C R47J	inductor 470nH 1.76 ohm 250mA 5%	0.126	0.114	0.097	0.090
CL680nH CCFH0805 C R68NJ	inductor 680nH 2.2 ohm 190mA 5%	0.126	0.114	0.097	0.090
CL1.0uH CCFH0805 C 1R0J	inductor 1.0uH 6.9 ohm 100mA 5%	0.126	0.114	0.097	0.090
CL6.8nH CCFH0603 C 6N8J	inductor 6.8nH 0.11 ohm 700mA 5%	0.126	0.114	0.097	0.090
CL39nH CCFH0603 C 39NJ	inductor 39nH 0.25 ohm 600mA 5%	0.126	0.114	0.097	0.090
CL82nH CCFH0603 C 82NJ	inductor 82nH 0.54 ohm 400mA 5%	0.126	0.114	0.097	0.090
CL150nH CCFH0603 C R15J	inductor 150nH 0.92 ohm 280mA 5%	0.126	0.114	0.097	0.090

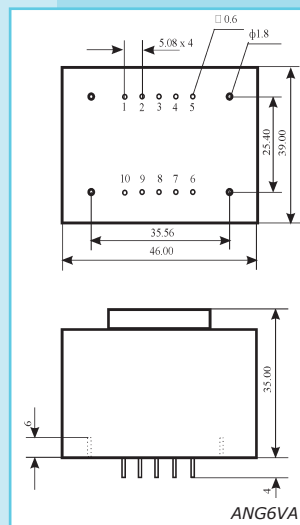
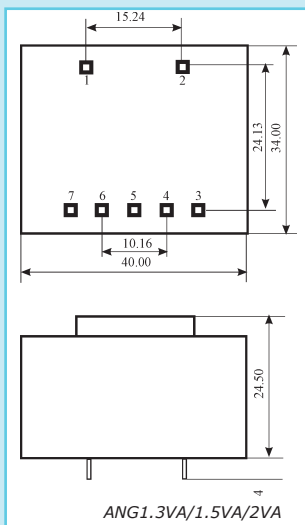
Line Filters

		1-9	10-99	100-499	500+
UT20-A07-333	LINE FILTER 2x33mH	0.847	0.768	0.653	0.605
EF25-H063	TRANSFORMER	1.465	1.329	1.130	1.046
ACM4532-601-2P	Line F-r, 1.5A, 50VDC, 6000hm@100MHz, SMD 4.5x3.2x3mm	1.281	1.162	0.988	0.915
ACM7060-701-2PL	Line F-r, 4A, 50VDC, 7000hm@100MHz, SMD 9x7x4.5mm	3.301	2.994	2.546	2.358
BLM18HG601SN1	Ferrite bead 0603 6000hm@100MHz 7000hm@1GHz 200mA	0.047	0.042	0.036	0.033
SCHURTER 5500.0155.1	Line Filter 250VAC 1A 2x11mH,47nF,2x2.2nF	9.296	8.263	7.368	6.886



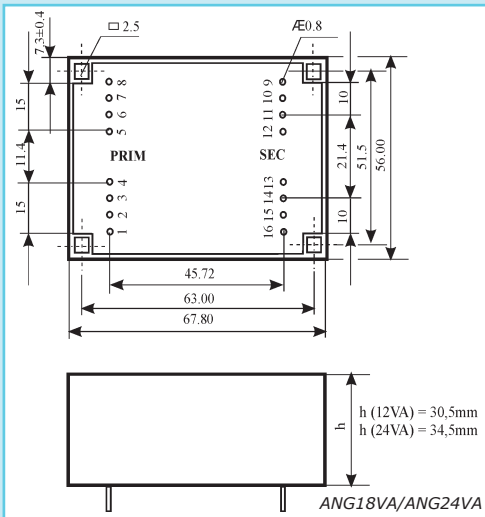
Transformers ANG

		1-49	50-99	100+
ANG1.3VA/6V	Transf. 220V - 6V/220mA, no load 7.5V	2.781	2.656	2.506
ANG1.3VA/7.5V	Transf. 220V - 7.5V/150mA, no load 10V	2.781	2.656	2.506



Transformers ANG

		1-49	50-99	100+
ANG1.3VA/9V	Transf. 220V - 9V/150mA, no load 11.6V	2.781	2.656	2.506
ANG1.3VA/12V	Transf. 220V - 12V/100mA, no load 15.4V	2.781	2.656	2.506
ANG1.3VA/13V	Transf. 220V - 13V/110mA, no load 18V	2.781	2.656	2.506
ANG1.3VA/16V	Transf. 220V - 16V/40mA, no load 18.2V	2.781	2.656	2.506
ANG1.3VA/18V	Transf. 220V - 18V/40mA, no load 20V	2.781	2.656	2.506
ANG1.3VA/8.5V+8.5V	Transf. 220V - 8.5V+8.5V/50mA, no load 10.5V+10.5V	2.781	2.656	2.506
ANG1.3VA/2x12V	Transf. 220V - 2x12V/Uo, no load 25.6V	2.781	2.656	2.506
ANG1.5VA/15V	Transf. 220V - 15V/100mA, no load 21.5V	2.889	2.759	2.603
ANG2VA/9V	Transf. 220V - 9V/220mA, no load 12.9V	2.997	2.862	2.700
ANG2VA/18V	Transf. 220V - 18V/110mA, no load 25.2V	2.997	2.862	2.700
ANG2VA/18V+18V	Transf. 220V - 18V+18V/50mA, no load 22.5V+22.5V	2.997	2.862	2.700
ANG6VA/6V	Transf. 220V - 6V/1A, no load 7V	4.075	3.892	3.671
ANG6VA/9V	Transf. 220V - 9V/0.66A, no load 11V	4.075	3.892	3.671
ANG6VA/12V	Transf. 220V - 12V/0.5A, no load 14.5V	4.075	3.892	3.671
ANG6VA/14V	Transf. 220V - 14V/0.4A, no load 15.9V	4.075	3.892	3.671
ANG6VA/15V	Transf. 220V - 15V/0.4A, no load 18.1V	4.075	3.892	3.671
ANG6VA/18V	Transf. 220V - 18V/0.33A, no load 21.6V	4.075	3.892	3.671
ANG6VA/21V	Transf. 220V - 21V/0.28A, no load 25.2V	4.075	3.892	3.671
ANG6VA/24V	Transf. 220V - 24V/0.25A, no load 28.8V	4.075	3.892	3.671
ANG6VA/7V+7V	Transf. 220V - 7V+7V/0.42A, no load 8.2V+8.2V	4.248	4.056	3.827
ANG6VA/9V+9V	Transf. 220V - 9V+9V/0.33A, no load 11V+11V	4.248	4.056	3.827
ANG6VA/12V+12V	Transf. 220V - 12V+12V/0.25A, no load 14V+14V	4.248	4.056	3.827
ANG6VA/15V+15V	Transf. 220V - 15V+15V/0.2A, no load 18.1V+18.1V	4.248	4.056	3.827
ANG6VA/18V+18V	Transf. 220V - 18+18V/0.16A, no load 21.7V+21.7V	4.248	4.056	3.827
ANG6VA/24V+24V	Transf. 220V - 24+24V/0.12A, no load 28.8V+28.8V	4.248	4.056	3.827
ANG18VA/7.5V+7.5V	Transf. 110+110V - 7.5V+7.5V/1.2A, no load 9.4V	10.112	9.657	9.110
ANG18VA/9V+9V	Transf. 110+110V - 9V+9V/1A, no load 11.2V	10.112	9.657	9.110
ANG18VA/10.5V+10.5V	Transf. 110+110V - 10.5V+10.5V/0.85A, no load 13V	10.112	9.657	9.110
ANG18VA/12V+12V	Transf. 110+110V - 12V+12V/0.75A, no load 15V	10.112	9.657	9.110
ANG18VA/15V+15V	Transf. 110+110V - 15V+15V/0.6A, no load 18.6V	10.112	9.657	9.110
ANG18VA/18V+18V	Transf. 110+110V - 18V+18V/0.5A, no load 22.6V	10.112	9.657	9.110
ANG18VA/21V+21V	Transf. 110+110V - 21V+21V/0.412A, no load 26.2V	10.112	9.657	9.110
ANG18VA/24V+24V	Transf. 110+110V - 24V+24V/0.38A, no load 30V	10.112	9.657	9.110
ANG18VA/30V+30V	Transf. 110+110V - 30V+30V/0.3A, no load 37V	10.112	9.657	9.110
ANG24VA/7.5V+7.5V	Transf. 110+110V - 7.5V+7.5V/1.6A, no load 9V	12.635	12.066	11.383
ANG24VA/9V+9V	Transf. 110+110V - 9V+9V/1.33A, no load 11V	12.635	12.066	11.383
ANG24VA/10.5V+10.5V	Transf. 110+110V - 10.5V+10.5V/1.14A, no load 12.5V	12.635	12.066	11.383
ANG24VA/12V+12V	Transf. 110+110V - 12V+12V/1A, no load 14.4V	12.635	12.066	11.383
ANG24VA/15V+15V	Transf. 110+110V - 15V+15V/0.8A, no load 18V	12.635	12.066	11.383
ANG24VA/18V+18V	Transf. 110+110V - 18V+18V/0.66A, no load 21.6V	12.635	12.066	11.383
ANG24VA/24V+24V	Transf. 110+110V - 24V+24V/0.5A, no load 30V	12.635	12.066	11.383
ANG24VA/30V+30V	Transf. 110+110V - 30V+30V/0.4A, no load 37V	12.635	12.066	11.383

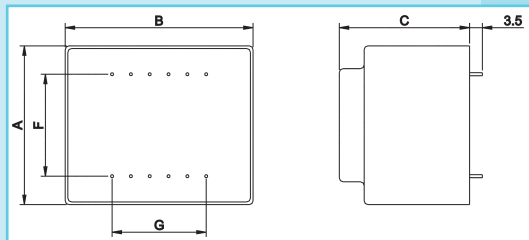


Transformers BULTRAF

		1-49	50-99	100+
BULTRAF0.5VA/6V	Transformer 230V - 6V/83mA	3.064	2.926	2.761
BULTRAF0.5VA/6V+6V	Transformer 230V - 6V/42mA+6V/42mA	3.121	2.981	2.812
BULTRAF0.5VA/7.5V	Transformer 230V - 7.5V/66mA	3.064	2.926	2.761
BULTRAF0.5VA/9V	Transformer 230V - 9V/56mA	3.064	2.926	2.761
BULTRAF0.5VA/12V	Transformer 230V - 12V/42mA	3.064	2.926	2.761
BULTRAF0.5VA/18V	Transformer 230V - 18V/28mA	3.064	2.926	2.761
BULTRAF1.5VA/6V	Transformer 230V - 6V/250mA	3.251	3.104	2.928
BULTRAF1.5VA/6V+6V	Transformer 230V - 6V/125mA+6V/125mA	3.309	3.160	2.981

Transformers BULTRAF

		1-49	50-99	100+
BULTRAF1.5VA/9V	Transformer 230V - 9V/167mA	3.251	3.104	2.928
BULTRAF1.5VA/9V+9V	Transformer 230V - 9V/83mA+9V/83mA	3.309	3.160	2.981
BULTRAF1.5VA/12V	Transformer 230V - 12V/125mA	3.251	3.104	2.928
BULTRAF1.5VA/18V	Transformer 230V - 18V/83mA	3.251	3.104	2.928
BULTRAF2.3VA/9V	Transformer 230V - 9V/256mA	3.401	3.248	3.064
BULTRAF2.3VA/12V	Transformer 230V - 12V/192mA	3.401	3.248	3.064
BULTRAF2.3VA/12V+12V	Transformer 230V - 12V/96mA+12V/96mA	3.461	3.305	3.118
BULTRAF2.3VA/18V	Transformer 230V - 18V/128mA	3.401	3.248	3.064
BULTRAF2.3VA/18V+18V	Transformer 230V - 18V/64mA+18V/64mA	3.461	3.305	3.118
BULTRAF4.5VA/9V	Transformer 230V - 9V/500mA	3.890	3.715	3.504
BULTRAF4.5VA/6V+6V	Transformer 230V - 6V/375mA+6V/375mA	3.950	3.772	3.559
BULTRAF4.5VA/12V+12V	Transformer 230V - 12V/188mA+12V/188mA	3.950	3.772	3.559
BULTRAF4.5VA/15V+15V	Transformer 230V - 15V/150mA+15V/150mA	3.950	3.772	3.559
BULTRAF6VA/9V	Transformer 230V - 9V/666mA	4.536	4.332	4.087
BULTRAF6VA/12V	Transformer 230V - 12V/500mA	4.536	4.332	4.087
BULTRAF6VA/15V	Transformer 230V - 15V/400mA	4.536	4.332	4.087
BULTRAF10VA/6V	Transformer 220V - 6V/1666mA	5.827	5.565	5.250
BULTRAF10VA/9V	Transformer 230V - 9V/1111mA	5.827	5.565	5.250
BULTRAF10VA/12V	Transformer 230V - 12V/833mA	5.827	5.565	5.250
BULTRAF10VA/12V+12V	Transformer 230V - 12V/416mA+12V/416mA	5.890	5.625	5.306
BULTRAF10VA/18V	Transformer 230V - 18V/556mA	5.827	5.565	5.250
BULTRAF10VA/24V	Transformer 230V - 24V/417mA	5.827	5.565	5.250



VA	A	B	C	F	G	Kg
0.5	26.7	31.7	15.2	20.0	4x5	0.04
1.5	26.7	31.7	21.8	20.0	4x5	0.08
4.5	34.9	40.8	28.1	25.0	4x5	0.15
6	36.8	43.8	32.3	27.5	5x5	0.20
10	42.1	49.9	34.6	27.5	5x5	0.28

Transformers

		1-49	50-99	100+
TRAF BT 17VA	Transformer 230V - 17VA	10.29	9.82	9.27
TRAF BT 30VA	Transformer 230V - 30VA	13.25	12.65	11.93
TRAF BT 50VA	Transformer 230V - 50VA	14.42	13.77	12.99
TRAF BT 70VA	Transformer 230V - 70VA	18.66	17.82	16.81
TRAF BT 100VA	Transformer 230V - 100VA	24.19	23.10	21.79

Current Transformers ANG

		1-49	50-99	100+
ANG50A/0.05A	Current Transformer 50A/0.05A	5.32	5.08	4.79
ANG100A/0.05A	Current Transformer 100A/0.05A	6.58	6.28	5.92
ANG150A/0.05A	Current Transformer 150A/0.05A	9.36	8.94	8.43
ANG200A/0.05A	Current Transformer 200A/0.05A	12.93	12.35	11.65

AC/DC converters ANG

		1-49	50-99	100+
ANGAC70/DC9/0.8	Input: AC 40-90V Output: DC 9V±5% 0.8A	18.89	17.29	16.01
ANGAC70/DC12/0.7	Input: AC 40-90V Output: DC 12V ±5% 0.7A	18.89	17.29	16.01

Adapters ANG

		1-49	50-99	100+
ANGADAPTER 9V	Input: AC 220V Output: DC 9V / 0.6A	9.00	8.24	7.63
ANGADAPTER 12V	Input: AC 220V Output: DC 12V / 0.5A	9.00	8.24	7.63

Power supplies SUNNY

		1-4	5-24	25-99	100+
SYS1193-0807-W2E	In:100-240VAC-Out: 7.5VDC/ 1A, Prot.:Short,OVP,OC	7.68	6.76	6.39	6.14
SYS1196-0605-W2E	In:90-264VAC-Out: 5VDC/ 1.2A, Prot.:Short,OVP,OC	6.40	5.63	5.32	5.12
SYS1196-0612-W2E	In:90-264VAC-Out:12VDC/ 0.5A, Prot.:Short,OVP,OC	6.13	5.40	5.10	4.91
SYS1308-1505-W2E	In:90-264VAC-Out: 5VDC/ 3A, Prot.:Short,OVP,OC	10.08	8.87	8.38	8.06
SYS1308-1809-W2E	In:90-264VAC-Out: 9VDC/ 2A, Prot.:Short,OVP,OC	10.43	9.18	8.68	8.34
SYS1308-2412-W2E	In:90-264VAC-Out:12VDC/ 2A, Prot.:Short,OVP,OC	9.55	8.40	7.95	7.64
SYS1308-2415-W2E	In:90-264VAC-Out:15VDC/ 1.6A, Prot.:Short,OVP,OC	10.08	8.87	8.38	8.06
SYS1308-2418-W2E	In:90-264VAC-Out:18VDC/ 1.33A, Prot.:Short,OVP,OC	10.43	9.18	8.68	8.34
SYS1308-2424-W2E	In:90-264VAC-Out:24VDC/ 1A, Prot.:Short,OVP,OC	10.08	8.87	8.38	8.06
SYS1319-2709-T2	In:90-264VAC-Out: 9VDC/ 3A, Prot.:Short,OVP,OC	11.09	9.76	9.22	8.87
SYS1319-3012-T2	In:90-264VAC-Out:12VDC/ 2.5A, Prot.:Short,OVP,OC	10.65	9.37	8.86	8.52
SYS1319-3024-T2	In:90-264VAC-Out:24VDC/ 1.25A, Prot.:Short,OVP,OC	10.65	9.37	8.86	8.52
SYS1097-5012	In:90-264VAC-Out:12VDC/ 4.17A, Prot.:Short,OVP,OC	20.76	18.83	18.30	17.60
SYS1097-5014	In:90-264VAC-Out:14VDC/ 3.57A, Prot.:Short,OVP,OC	20.76	18.83	18.30	17.60
SYS1097-5024	In:90-264VAC-Out:24VDC/ 2.1A, Prot.:Short,OVP,OC	20.76	18.83	18.30	17.60
SYS1183-4005	In:90-264VAC-Out: 5VDC/ 8A, Prot.:Short,OVP,OC	23.95	21.72	21.11	20.30
SYS1183-6512	In:90-264VAC-Out:12VDC/ 5.42A, Prot.:Short,OVP,OC	20.63	18.70	18.18	17.48
SYS1183-6519-UK	In:90-264VAC-Out:19VDC/ 3.42A, Prot.:Short,OVP,OC	23.95	21.72	21.11	20.30
SYS1183-6524	In:90-264VAC-Out:24VDC/ 2.7A, Prot.:Short,OVP,OC	21.13	19.16	18.62	17.90
SYS1223-8012	In:90-264VAC-Out:12VDC/ 6.6A, Prot.:Short,OVP,OC	39.35	35.68	34.68	33.35
SYS1223-9024	In:90-264VAC-Out:24VDC/ 3.75A, Prot.:Short,OVP,OC	39.35	35.68	34.68	33.35
DRXX-6012-T3	In:90-264VAC-Out:12VDC/ 5A, Prot.:Short,OVP,OC	21.10	19.13	18.59	17.88
STXX-8412-M3	In:90-264VAC-Out:12VDC/ 7A, Prot.:Short,OVP,OC	37.76	34.24	33.28	32.00
SYD1109-6019	In:11-16VDC-Out:19VDC/ 3.15A, Prot.:Short,OVP,OC	19.98	18.12	17.61	16.93
SYD1114-7515	In:11-28VDC-Out:15VDC/ 5A, Prot.:Short,OVP,OC	30.36	27.53	26.75	25.73
PC AC CABLE 220V	PC / SYS1097 AC cable 220V	3.19	2.81	2.65	2.55
AC CABLE 3pin	3 pin AC cable 220V for SYS1223	3.69	3.25	3.07	2.95
POWER CABLE-8	Power cable 220V for SYS2011; SYS1319	2.14	1.88	1.78	1.71
AC blades SYS1183	AC blades for SYS1183	4.22	3.72	3.51	3.38
Jack 2.1x5.5 to 2.5x5.5	Connector reduction 2.1x5.5 Jack to 2.5x5.5 Plug	1.81	1.59	1.51	1.45



Varistors

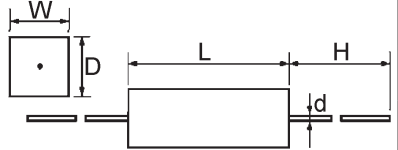
		1-9	10-99	100-999	1000+
VAR 7K391 250V AC	var. 7mm390V/1mA Uacmax250V/Udcmax320V	0.063	0.051	0.047	0.045
VAR10K391 250V AC	var. 10mm390V/1mA Uacmax250V/Udcmax320V	0.108	0.087	0.080	0.077
VAR10K431 275V AC	var. 10mm430V Uacmax275V	0.128	0.103	0.095	0.091
VAR14K391 250V AC	var. 14mm390V/1mA Uacmax250V/Udcmax320V	0.146	0.118	0.109	0.104
VAR20K391 250V AC	var. 20mm390V/1mA Uacmax250V/Udcmax320V	0.314	0.253	0.233	0.223

THROUGH HOLE RESISTORS

PARAMETERS						
Type	Power, W	Tolerance	Max. Working voltage, V	Max overload voltage, V	Dielectric withstanding voltage, V	Temperature coefficient, ppm/°C
Carbon film						
RW125CF	0.125	5%	200	400	400	±300 to 10Ω ±450 for 11Ω - 91KΩ 0±-700 for 100KΩ - 1MΩ 0±-1500 for 1.1MΩ - 10MΩ
RW25CF	0.25	5%	250	500	500	
R1WCF	1	5%	500	1000	1000	
R2WCF	2	5%	500	1000	1000	
"FUSIBLE"						
RW25 FUS	0.25	5%	-	-	300	±350
Metal film						
RW25MF 1%	0.25	1%	250	500	500	±50
RW6MF 1%	0.6	1%	250	500	250	±50
RW6MF 5%	0.6	5%	250	500	250	±200
Metal oxide						
R1WMO	1	5%	350	600	350	±350
R2WMO	2	5%	350	600	350	±350
Wire wound						
R1W KNP	1	5%	-	-	-	≥20Ω: ±300
R3W KNP	3	5%	-	-	-	<20Ω: ±400
Cement; Wire wound / Film						
R5WCEM	5	5%	-	-	-	<20Ω: ± 400
R10WCEM	10	5%	-	-	-	≥20Ω: ± 350

Mechanical parameters, mm					
Type	D Max.	L Max.	d +0.02/-0.05	H±3	
RW125CF	1.85	3.5	0.5	28	
RW25CF	2.5	6.8	0.6	28	
R1WCF	5	12	0.7	28	
R2WCF	5.5	16	0.8	28	
RW25 FUS	3	6.8	0.6	28	
RW25MF 1%	2.5	6.8	0.6	28	
RW6MF 1%	3	6.8	0.6	28	
RW6MF 5%	3	6.8	0.6	28	
R1WMO	4.5	10	0.7	28	
R2WMO	5	12	0.7	28	
R1W KNP	4	10	0.7	28	
R3W KNP	5.5	16	0.8	28	

Cement; Wire wound / Film high power resistors - Dimensions, mm							
Type	W ±1	D ±1	L ±1	H	d +0.02/-0.05	Wire wound	Film
R5WCEM	10	9	22	35±5	0.8	0.1÷47Ω	48Ω±100kΩ
R10WCEM	10	9	49	35±5	0.8	0.1÷910Ω	911Ω±200kΩ



Resistors 0.125W 5% Carbon Film

1-9 10-99 100-499 500-4999 5000+

RW125CF 1.0R-1.0M
RW125CF 1.5M-4.7M
RW125CF 6.8M-10M

0.0663 0.0159 0.0041 0.0031 0.0027
0.1124 0.0270 0.0070 0.0053 0.0045
0.1239 0.0297 0.0077 0.0058 0.0050

Resistors 0.25W 5% Carbon Film

1-9 10-99 100-499 500-4999 5000+

RW25CF 1.0R-10M

0.0818 0.0196 0.0051 0.0039 0.0033

Resistors 0.25W 1% Metal Film	1-9	10-99	100-499	500-4999	5000+
RW25MF 1% 1.0R-10M	0.1006	0.0241	0.0062	0.0047	0.0040
Resistors 0.25W 5% Fusible	1-9	10-99	100-499	500-4999	5000+
RW25 FUS 1.0R-22K	0.1084	0.0385	0.0171	0.0129	0.0108
Resistors 0.6W 1% Metal Film	1-9	10-99	100-499	500-4999	5000+
RW6MF 1% 1.0R-4.7R	0.1444	0.0513	0.0228	0.0172	0.0144
RW6MF 1% 5.1R-8.2R	0.1159	0.0412	0.0183	0.0138	0.0116
RW6MF 1% 10R-1.0M	0.0588	0.0209	0.0093	0.0070	0.0059
Resistors 0.6W 5% Metal Film	1-9	10-99	100-499	500-4999	5000+
RW6MF 5% 0.1R-0.33R	0.2185	0.0776	0.0345	0.0260	0.0218
RW6MF 5% 1.0R-1.0M	0.0517	0.0184	0.0082	0.0062	0.0052
Resistors 1W 5% Wire	1-4	5-24	25-99	100-499	500+
R1W KNP 0.1R-1.0R	0.0977	0.0684	0.0596	0.0562	0.0488
Resistors metal oxide 1W 5%	1-4	5-24	25-99	100-499	500+
R1WMO 0.27R-0.68R	0.0481	0.0224	0.0196	0.0184	0.0160
Resistors carbon film 1W 5%	1-4	5-24	25-99	100-499	500+
R1WCF 1.0R-1.0M	0.0438	0.0204	0.0178	0.0168	0.0146
Resistors 2W 5% Metal Oxide	1-4	5-24	25-99	100-499	500+
R2WMO 0.33R-0.68R	0.0738	0.0344	0.0300	0.0283	0.0246
Resistors 2W 5% Carbon Film	1-4	5-24	25-99	100-499	500+
R2WCF 1.0R-330K	0.0613	0.0286	0.0249	0.0235	0.0204
Resistors 3W 5% Wire	1-4	5-24	25-99	100-499	500+
R3W KNP 1.0R-27R	0.1425	0.0997	0.0869	0.0819	0.0712
R3W KNP 150R-220R	0.1789	0.1258	0.1097	0.1034	0.0899
R3W KNP 330R	0.2129	0.1490	0.1299	0.1224	0.1064
Resistors 5W 5% Cement-wire wound up to 47R, from 56R Cement-layered type	1-4	5-24	25-99	100-499	500+
R5WCEM 0.10R-47R; 56R-22K	0.1095	0.0833	0.0806	0.0752	0.0672
Resistors 10W 5% Cement-wire wound up to 680R, from 1K Cement-layered type	1-4	5-24	25-99	100-499	500+
R10WCEM 0.10R-680R	0.2193	0.1668	0.1614	0.1507	0.1345
R10WCEM 1.0K-22K	0.2309	0.1757	0.1700	0.1587	0.1417
RESISTORS SMD					
Resistors SMD 0402 5%	1-9	10-99	100-999	1000+	5000+
R0402 10R-1.0M	0.0200	0.0066	0.0021	0.0014	0.0007
Resistors SMD 0603 1%	1-9	10-99	100-999	1000+	5000+
R0603 1.0R-6.8R	0.0240	0.0152	0.0107	0.0095	0.0069
R0603 10R-1.0M	0.0250	0.0084	0.0026	0.0018	0.0008
R0603 1.5M-10M	0.0240	0.0153	0.0108	0.0096	0.0069
Resistors SMD 0603 5%	1-9	10-99	100-999	1000+	5000+
R0603 0R-10M	0.0190	0.0065	0.0020	0.0014	0.0006
Resistors SMD 0805 1%	1-9	10-99	100-999	1000+	5000+
R0805 1.0R	0.0390	0.0196	0.0065	0.0049	0.0039
R0805 10R-1.0M	0.0380	0.0128	0.0040	0.0027	0.0013
R0805 1.2M-2.2M	0.0680	0.0339	0.0112	0.0085	0.0068

RESISTORS SMD

PARAMETERS						
Type	Power, W	Tolerance	Max. Working voltage, V	Max overload voltage, V	Dielectric withstanding voltage, V	Temperature coefficient, ppm/°C
R0402 5%	1/16	±5%	50	100	100	1Ω ~ 10Ω ≤ ±400 11Ω ~ 10MΩ ≤ ±200
R0603 5%	1/10	±5%	50	100	300	
R0805 5%	1/8	±5%	150	300	500	
R1206 5%	1/4	±5%	200	400	500	
R0603 1%	1/10	±1%	50	100	300	10Ω ~ 100Ω ≤ ±200 101Ω ~ 1MΩ ≤ ±100
R0805 1%	1/8	±1%	150	300	500	
R1206 1%	1/4	±1%	200	400	500	

Dimensions, mm				
	Type	L	W	H
	R0402 5% / 1%	1.00±0.1	0.50±0.05	0.35±0.05
	R0603 5% / 1%	1.60±0.1	0.80±0.15	0.45±0.10
	R0805 5% / 1%	2.00±0.15	1.25±0.15	0.55±0.10
	R1206 5% / 1%	3.10±0.15	1.55±0.15	0.55±0.10

Resistors SMD 0805 5%

	1-9	10-99	100-999	1000+	5000+
R0805 OR					
R0805 0.22R-0.68R	0.0310	0.0104	0.0032	0.0022	0.0010
R0805 1.0R-10M	0.0540	0.0342	0.0241	0.0215	0.0156
	0.0310	0.0104	0.0032	0.0022	0.0010

Resistors SMD 1206 1%

	1-9	10-99	100-999	1000+	5000+
R1206 2.2R	0.0830	0.0331	0.0099	0.0072	0.0055
R1206 10R-1.0M	0.0640	0.0214	0.0066	0.0045	0.0021
R1206 1.5M-10M	0.0710	0.0356	0.0118	0.0089	0.0071

Resistors SMD 1206 5%

	1-9	10-99	100-999	1000+	5000+
R1206 OR					
R1206 0.47R-0.68R	0.0560	0.0187	0.0058	0.0040	0.0019
R1206 1.0R-10M	0.0720	0.0455	0.0320	0.0285	0.0207
	0.0560	0.0187	0.0058	0.0040	0.0019

Resistors from ROHM and SAMSUNG are also offered - for more information check: www.comet.bg, www.comet.srl.ro, www.comet.co.yu.

For quantities more than 50 000 (as a total from all values) - SPECIAL PRICES are offered!

New nominal values and types of resistors are continuously added! Please check on our web sites: www.comet.bg, www.comet.srl.ro, www.comet.co.yu.

Resistor Networks

	1-9	10-99	100-499	500+	2000+
RABA9 100R	0.033	0.029	0.028	0.026	0.023
RABA9 220R	0.033	0.029	0.028	0.026	0.023
RABA9 330R	0.033	0.029	0.028	0.026	0.023
RABA9 470R	0.033	0.029	0.028	0.026	0.023
RABA9 680R	0.033	0.029	0.028	0.026	0.023
RABA9 1.0K	0.033	0.029	0.028	0.026	0.023
RABA9 2.2K	0.033	0.029	0.028	0.026	0.023
RABA9 3.3K	0.033	0.029	0.028	0.026	0.023
RABA9 4.7K	0.033	0.029	0.028	0.026	0.023
RABA9 6.8K	0.033	0.029	0.028	0.026	0.023
RABA9 10K	0.033	0.029	0.028	0.026	0.023
RABA9 22K	0.033	0.029	0.028	0.026	0.023

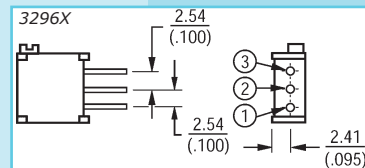
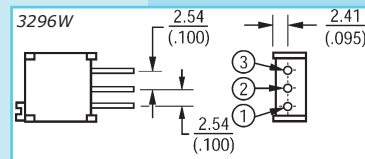
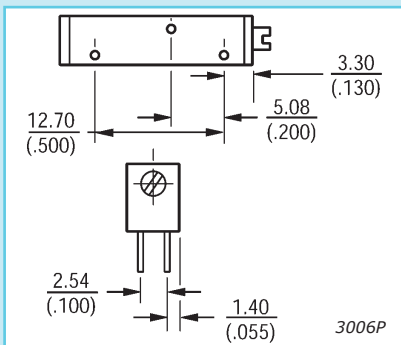
Resistor Networks		1-9	10-99	100-499	500+	2000+
RA8A9 33K	8 resistors with 9 terminals (SIP) 33K	0.033	0.029	0.028	0.026	0.023
RA8A9 47K	8 resistors with 9 terminals (SIP) 47K	0.033	0.029	0.028	0.026	0.023
RA8A9 100K	8 resistors with 9 terminals (SIP) 100K	0.033	0.029	0.028	0.026	0.023
Resistor Networks SMD		1-9	10-99	100-999	1000+	
RA1206 (4X0603) 488 10R	4 resistors with 8 terminals SMD 4x0603 10R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 22R	4 resistors with 8 terminals SMD 4x0603 22R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 33R	4 resistors with 8 terminals SMD 4x0603 33R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 47R	4 resistors with 8 terminals SMD 4x0603 47R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 56R	4 resistors with 8 terminals SMD 4x0603 56R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 75R	4 resistors with 8 terminals SMD 4x0603 75R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 100R	4 resistors with 8 terminals SMD 4x0603 100R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 150R	4 resistors with 8 terminals SMD 4x0603 150R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 220R	4 resistors with 8 terminals SMD 4x0603 220R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 270R	4 resistors with 8 terminals SMD 4x0603 270R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 330R	4 resistors with 8 terminals SMD 4x0603 330R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 470R	4 resistors with 8 terminals SMD 4x0603 470R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 560R	4 resistors with 8 terminals SMD 4x0603 560R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 680R	4 resistors with 8 terminals SMD 4x0603 680R	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 1.0K	4 resistors with 8 terminals SMD 4x0603 1.0K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 1.5K	4 resistors with 8 terminals SMD 4x0603 1.5K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 2.2K	4 resistors with 8 terminals SMD 4x0603 2.2K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 3.3K	4 resistors with 8 terminals SMD 4x0603 3.3K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 4.7K	4 resistors with 8 terminals SMD 4x0603 4.7K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 5.6K	4 resistors with 8 terminals SMD 4x0603 5.6K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 6.8K	4 resistors with 8 terminals SMD 4x0603 6.8K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 8.2K	4 resistors with 8 terminals SMD 4x0603 8.2K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 10K	4 resistors with 8 terminals SMD 4x0603 10K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 15K	4 resistors with 8 terminals SMD 4x0603 15K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 22K	4 resistors with 8 terminals SMD 4x0603 22K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 33K	4 resistors with 8 terminals SMD 4x0603 33K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 47K	4 resistors with 8 terminals SMD 4x0603 47K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 56K	4 resistors with 8 terminals SMD 4x0603 56K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 68K	4 resistors with 8 terminals SMD 4x0603 68K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 100K	4 resistors with 8 terminals SMD 4x0603 100K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 150K	4 resistors with 8 terminals SMD 4x0603 150K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 220K	4 resistors with 8 terminals SMD 4x0603 220K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 330K	4 resistors with 8 terminals SMD 4x0603 330K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 470K	4 resistors with 8 terminals SMD 4x0603 470K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 560K	4 resistors with 8 terminals SMD 4x0603 560K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 680K	4 resistors with 8 terminals SMD 4x0603 680K	0.0453	0.0160	0.0072	0.0053	
RA1206 (4X0603) 488 1.0M	4 resistors with 8 terminals SMD 4x0603 1.0M	0.0453	0.0160	0.0072	0.0053	
RA0805 (4X0402) 488 33R	4 resistors with 8 terminals SMD 4x0402 33R	0.0618	0.0218	0.0098	0.0073	
RA0805 (4X0402) 488 68R	4 resistors with 8 terminals SMD 4x0402 68R	0.0618	0.0218	0.0098	0.0073	
Trimmer resistors		1-9	10-99	100-499	500+	
PT6h(625MC)100R	Carbon Trimmer Potent. 5x2.5mm 100R, Horiz. Type	0.100	0.083	0.078	0.069	
PT6h(625MC)220R	Carbon Trimmer Potent. 5x2.5mm 220R, Horiz. Type	0.100	0.083	0.078	0.069	
PT6h(625MC)500R	Carbon Trimmer Potent. 5x2.5mm 500R, Horiz. Type	0.100	0.083	0.078	0.069	
PT6h(625MC)1.0K	Carbon Trimmer Potent. 5x2.5mm 1K, Horiz. Type	0.100	0.083	0.078	0.069	
PT6h(625MC)5.0K	Carbon Trimmer Potent. 5x2.5mm 5K, Horiz. Type	0.100	0.083	0.078	0.069	
PT6h(625MC)10K	Carbon Trimmer Potent. 5x2.5mm 10K, Horiz. Type	0.100	0.083	0.078	0.069	
PT6h(625MC)20K	Carbon Trimmer Potent. 5x2.5mm 20K, Horiz. Type	0.100	0.083	0.078	0.069	
PT6h(625MC)50K	Carbon Trimmer Potent. 5x2.5mm 50K, Horiz. Type	0.100	0.083	0.078	0.069	
PT6h(625MC)100K	Carbon Trimmer Potent. 5x2.5mm 100K, Horiz. Type	0.100	0.083	0.078	0.069	
PT6h(625MC)500K	Carbon Trimmer Potent. 5x2.5mm 500K, Horiz. Type	0.100	0.083	0.078	0.069	
PT6h(625MC)1.0M	Carbon Trimmer Potent. 5x2.5mm 1M, Horiz. Type	0.100	0.083	0.078	0.069	
PT6v(655MCL)100R	Carbon Trimmer Potent. 5x5mm 100R, Vertical Type	0.100	0.083	0.078	0.069	
PT6v(655MCL)220R	Carbon Trimmer Potent. 5x5mm 220R, Vertical Type	0.100	0.083	0.078	0.069	
PT6v(655MCL)500R	Carbon Trimmer Potent. 5x5mm 500R, Vertical Type	0.100	0.083	0.078	0.069	
PT6v(655MCL)1.0K	Carbon Trimmer Potent. 5x5mm 1K, Vertical Type	0.100	0.083	0.078	0.069	
PT6v(655MCL)2.0K	Carbon Trimmer Potent. 5x5mm 2K, Vertical Type	0.100	0.083	0.078	0.069	
PT6v(655MCL)5.0K	Carbon Trimmer Potent. 5x5mm 5K, Vertical Type	0.100	0.083	0.078	0.069	
PT6v(655MCL)10K	Carbon Trimmer Potent. 5x5mm 10K, Vertical Type	0.100	0.083	0.078	0.069	
PT6v(655MCL)20K	Carbon Trimmer Potent. 5x5mm 20K, Vertical Type	0.100	0.083	0.078	0.069	
PT6v(655MCL)50K	Carbon Trimmer Potent. 5x5mm 50K, Vertical Type	0.100	0.083	0.078	0.069	
PT6v(655MCL)100K	Carbon Trimmer Potent. 5x5mm 100K, Vertical Type	0.100	0.083	0.078	0.069	
PT6v(655MCL)500K	Carbon Trimmer Potent. 5x5mm 500K, Vertical Type	0.100	0.083	0.078	0.069	
TRV625MC 1.0K	Ceramic Trimmer Potent. 5x2.5mm 1K, Horiz. Type	0.124	0.111	0.101	0.092	
TRV625MC 5.0K	Ceramic Trimmer Potent. 5x2.5mm 5K, Horiz. Type	0.124	0.111	0.101	0.092	
TRV625MC 10K	Ceramic Trimmer Potent. 5x2.5mm 10K, Horiz. Type	0.124	0.111	0.101	0.092	
TRV625MC 20K	Ceramic Trimmer Potent. 5x2.5mm 20K, Horiz. Type	0.124	0.111	0.101	0.092	
TRV625MC 50K	Ceramic Trimmer Potent. 5x2.5mm 50K, Horiz. Type	0.124	0.111	0.101	0.092	
TRV625MC 100K	Ceramic Trimmer Potent. 5x2.5mm 100K, Horiz. Type	0.124	0.111	0.101	0.092	
TRV625MC 200K	Ceramic Trimmer Potent. 5x2.5mm 200K, Horiz. Type	0.124	0.111	0.101	0.092	
TRH655MCL 1.0K	Ceramic Trimmer Potent. 5x5mm 1K, Vertical Type	0.124	0.111	0.101	0.092	

Trimmer resistors

		1-9	10-99	100-499	500+
TRH655MCL 2.0K	Ceramic Trimmer Potent. 5x5mm 2K, Vertical Type	0.124	0.111	0.101	0.092
TRH655MCL 5.0K	Ceramic Trimmer Potent. 5x5mm 5K, Vertical Type	0.124	0.111	0.101	0.092
TRH655MCL 10K	Ceramic Trimmer Potent. 5x5mm 10K, Vertical Type	0.124	0.111	0.101	0.092
TRH655MCL 20K	Ceramic Trimmer Potent. 5x5mm 20K, Vertical Type	0.124	0.111	0.101	0.092
TRH655MCL 50K	Ceramic Trimmer Potent. 5x5mm 50K, Vertical Type	0.124	0.111	0.101	0.092
TRH655MCL 100K	Ceramic Trimmer Potent. 5x5mm 100K, Vertical Type	0.124	0.111	0.101	0.092
TRH655MCL 200K	Ceramic Trimmer Potent. 5x5mm 200K, Vertical Type	0.124	0.111	0.101	0.092

Trimmer resistors BOURNS (SPECTROL)

		1-9	10-99	100-499	500+
3006P(43P) 1K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3006P(43P) 2K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3006P(43P) 5K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3006P(43P) 10K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3006P(43P) 20K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3006P(43P) 50K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3006P(43P) 100K MBR	0.75W 100ppm/C 19x4.8mm 15turns	0.507	0.427	0.398	0.362
3296X(64X) 100R MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 200R MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 500R MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 1K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 2K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 5K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 10K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 20K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 50K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 100K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 200K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481
3296X(64X) 500K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.674	0.568	0.529	0.481








		1-9	10-99	100-499	500+
3296W(64W) 100R MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 200R MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 500R MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 1K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 2K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 5K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 10K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 20K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 50K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 100K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 200K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 500K MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 1M MBR	0.5W 100ppm/C 9.5x4.8mm 25turns	0.667	0.562	0.524	0.477
3296W(64W) 100R DIV	0.5W 100ppm/C 9.5x4.8mm 25turns	0.308	0.260	0.242	0.220
3296W(64W) 500R DIV	0.5W 100ppm/C 9.5x4.8mm 25turns	0.308	0.260	0.242	0.220
3296W(64W) 1K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns	0.308	0.260	0.242	0.220
3296W(64W) 2K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns	0.308	0.260	0.242	0.220
3296W(64W) 5K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns	0.308	0.260	0.242	0.220
3296W(64W) 10K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns	0.308	0.260	0.242	0.220
3296W(64W) 20K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns	0.308	0.260	0.242	0.220
3296W(64W) 50K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns	0.308	0.260	0.242	0.220
3296W(64W) 500K DIV	0.5W 100ppm/C 9.5x4.8mm 25turns	0.308	0.260	0.242	0.220



Trimmer resistors PIHER

		1-9	10-99	100-499	500+
PT6KH 2.5K	0.15W Ø6mm PIHER	0.328	0.291	0.260	0.243
PT6KV 50K	0.15W Ø6mm PIHER	0.328	0.291	0.260	0.243
PT6KV 2.2M	0.15W Ø6mm PIHER	0.328	0.291	0.260	0.243

Trimmer resistors PIHER

			1-9	10-99	100-499	500+	
PT10LH 1K	0.15W Ø10mm PIHER		0.325	0.289	0.258	0.241	
PT10LH 2.5K	0.15W Ø10mm PIHER		0.325	0.289	0.258	0.241	
PT10LH 5K	0.15W Ø10mm PIHER		0.325	0.289	0.258	0.241	
PT10LH 10K	0.15W Ø10mm PIHER		0.325	0.289	0.258	0.241	
PT10LH 25K	0.15W Ø10mm PIHER		0.325	0.289	0.258	0.241	
PT10LH 50K	0.15W Ø10mm PIHER		0.325	0.289	0.258	0.241	
PT10LH 100K	0.15W Ø10mm PIHER		0.325	0.289	0.258	0.241	
PT10LH 250K	0.15W Ø10mm PIHER		0.325	0.289	0.258	0.241	
PT10LH 1M	0.15W Ø10mm PIHER		0.325	0.289	0.258	0.241	
PT10LH 2.2M	0.15W Ø10mm PIHER		0.325	0.289	0.258	0.241	
PT10LV 100R	0.15W Ø10mm PIHER			0.325	0.289	0.258	0.241
PT10LV 220R	0.15W Ø10mm PIHER			0.325	0.289	0.258	0.241
PT10LV 250R	0.15W Ø10mm PIHER			0.325	0.289	0.258	0.241
PT10LV 1K	0.15W Ø10mm PIHER			0.325	0.289	0.258	0.241
PT10LV 2.2K	0.15W Ø10mm PIHER			0.325	0.289	0.258	0.241
PT10LV 2.5K	0.15W Ø10mm PIHER			0.325	0.289	0.258	0.241
PT10LV 4.7K	0.15W Ø10mm PIHER			0.325	0.289	0.258	0.241
PT10LV 5K	0.15W Ø10mm PIHER			0.325	0.289	0.258	0.241
PT10LV 10K	0.15W Ø10mm PIHER	0.325		0.289	0.258	0.241	
PT10LV 22K	0.15W Ø10mm PIHER	0.325		0.289	0.258	0.241	
PT10LV 25K	0.15W Ø10mm PIHER	0.325		0.289	0.258	0.241	
PT10LV 50K	0.15W Ø10mm PIHER	0.325		0.289	0.258	0.241	
PT10LV 100K	0.15W Ø10mm PIHER	0.325		0.289	0.258	0.241	
PT10LV 220K	0.15W Ø10mm PIHER	0.325		0.289	0.258	0.241	
PT10LV 250K	0.15W Ø10mm PIHER	0.325		0.289	0.258	0.241	
PT10LV 500K	0.15W Ø10mm PIHER	0.325		0.289	0.258	0.241	
PT10LV 1M	0.15W Ø10mm PIHER	0.325		0.289	0.258	0.241	
PT10MV 2.2K	0.15W Ø10mm PIHER			0.325	0.289	0.258	0.241
PT10MV 100K	0.15W Ø10mm PIHER		0.325	0.289	0.258	0.241	
PT15LV 1K	0.25W Ø15mm PIHER		0.386	0.343	0.306	0.286	
PT15LV 5K	0.25W Ø15mm PIHER		0.386	0.343	0.306	0.286	
PT15LV 10K	0.25W Ø15mm PIHER		0.386	0.343	0.306	0.286	
PT15LV 25K	0.25W Ø15mm PIHER		0.386	0.343	0.306	0.286	
PT15LV 50K	0.25W Ø15mm PIHER		0.386	0.343	0.306	0.286	
PT15LV 250K	0.25W Ø15mm PIHER		0.386	0.343	0.306	0.286	
PT15LV 5M	0.25W Ø15mm PIHER	0.386	0.343	0.306	0.286		
PT15NV 1K	0.25W Ø15mm PIHER		0.386	0.343	0.306	0.286	
PT15NV 2.5K	0.25W Ø15mm PIHER		0.386	0.343	0.306	0.286	
PT15NV 5K	0.25W Ø15mm PIHER		0.386	0.343	0.306	0.286	
PT15NV 10K	0.25W Ø15mm PIHER		0.386	0.343	0.306	0.286	
PT15NV 25K	0.25W Ø15mm PIHER		0.386	0.343	0.306	0.286	
PT15NV 50K	0.25W Ø15mm PIHER		0.387	0.344	0.306	0.286	
PT15NV 2.5M	0.25W Ø15mm PIHER		0.387	0.344	0.306	0.286	

Trimmer resistors ISKRA

			1-9	10-99	100-499	500+	
PNZ 10Z 220R	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 10Z 470R	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 10Z 1K	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 10Z 2.2K	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 10Z 4.7K	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 10Z 10K	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 10Z 22K	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 10Z 47K	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 10Z 100K	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 10Z 220K	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 10Z 470K	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 10Z 1M	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 10Z 2.2M	0.15W; lin; 10x11mm; vert. reg. screwdriver P=5x10mm		0.152	0.135	0.120	0.113	
PNZ 11Z 220R	0.15W; lin; 10x11mm; hor. reg. screwdriver P=2.5mmx2			0.152	0.135	0.120	0.113
PNZ 11Z 470R	0.15W; lin; 10x11mm; hor. reg. screwdriver P=2.5mmx2			0.152	0.135	0.120	0.113
PNZ 11Z 1K	0.15W; lin; 10x11mm; hor. reg. screwdriver P=2.5mmx2	0.152		0.135	0.120	0.113	
PNZ 11Z 2.2K	0.15W; lin; 10x11mm; hor. reg. screwdriver P=2.5mmx2	0.152		0.135	0.120	0.113	
PNZ 11Z 4.7K	0.15W; lin; 10x11mm; hor. reg. screwdriver P=2.5mmx2	0.152		0.135	0.120	0.113	
PNZ 11Z 10K	0.15W; lin; 10x11mm; hor. reg. screwdriver P=2.5mmx2	0.152		0.135	0.120	0.113	
PNZ 11Z 22K	0.15W; lin; 10x11mm; hor. reg. screwdriver P=2.5mmx2	0.152		0.135	0.120	0.113	
PNZ 11Z 47K	0.15W; lin; 10x11mm; hor. reg. screwdriver P=2.5mmx2	0.152		0.135	0.120	0.113	



PNZ10Z



PNZ11Z



KNOB PNZ10



PNZ10A



PNZ11A



PNZ14D



PNZ15E

Trimmer resistors ISKRA

		1-9	10-99	100-499	500+
PNZ 11Z 100K	0.15W; lin;10x11mm; hor.reg. screwdriver P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z 220K	0.15W; lin;10x11mm; hor.reg. screwdriver P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z 470K	0.15W; lin;10x11mm; hor.reg. screwdriver P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z 1M	0.15W; lin;10x11mm; hor.reg. screwdriver P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z 2.2M	0.15W; lin;10x11mm; hor.reg. screwdriver P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 10Z A 220R	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 10Z A 470R	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 10Z A 1K	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 10Z A 2.2K	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 10Z A 4.7K	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 10Z A 10K	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 10Z A 22K	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 10Z A 47K	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 10Z A 100K	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 10Z A 220K	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 10Z A 470K	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 10Z A 1M	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 10Z A 2.2M	0.15W; lin;10x11mm; vert. reg. hexagonal P=5x10mm	0.152	0.135	0.120	0.113
PNZ 11Z A 220R	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z A 470R	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z A 1K	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z A 2.2K	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z A 4.7K	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z A 10K	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z A 22K	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z A 47K	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z A 100K	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z A 220K	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z A 470K	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z A 1M	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
PNZ 11Z A 2.2M	0.15W; lin; 10x11mm; hor.reg. hexagonal; P=2.5mmx2	0.152	0.135	0.120	0.113
KNOB PNZ10 162 WHITE	Thumbwheel for trimer PNZ 10/11 A, White	0.040	0.036	0.032	0.030
KNOB PNZ10 393 BLACK	Thumbwheel for trimer PNZ 10/11 A, Black	0.040	0.036	0.032	0.030
KNOB PNZ10 406 RED	Thumbwheel for trimer PNZ 10/11 A, Red	0.040	0.036	0.032	0.030
PNZ 14D 220R	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 14D 470R	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 14D 1K	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 14D 2.2K	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 14D 4.7K	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 14D 10K	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 14D 22K	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 14D 47K	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 14D 100K	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 14D 220K	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 14D 470K	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 14D 1M	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 14D 2.2M	0.15W;lin;15x15mm vert.reg.screwdriver P=10x12.5mm	0.214	0.190	0.170	0.159
PNZ 15E 220R	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159
PNZ 15E 470R	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159
PNZ 15E 1K	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159
PNZ 15E 2.2K	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159
PNZ 15E 4.7K	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159
PNZ 15E 10K	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159
PNZ 15E 22K	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159
PNZ 15E 47K	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159
PNZ 15E 100K	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159
PNZ 15E 220K	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159
PNZ 15E 470K	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159
PNZ 15E 1M	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159
PNZ 15E 2.2M	0.15W; lin;15x15mm; hor. reg. screwdriver; P=5mmx2	0.214	0.190	0.170	0.159

Trimmer resistors SMD

		1-9	10-99	100-499	500+
TRMVR 4K7 SMD ROHM	SMD R trimmer 4.7K MVR34	0.1150	0.1020	0.0935	0.0850
TRMVR 10K SMD ROHM	SMD R trimmer 10K MVR34	0.1150	0.1020	0.0935	0.0850
TRMVR 100K SMD ROHM	SMD R trimmer 100K MVR34	0.1150	0.1020	0.0935	0.0850
TRMVR 1K SMD ROHM	SMD R trimmer 1K MVR34	0.1150	0.1020	0.0935	0.0850
TRMVR 1M SMD ROHM	SMD R trimmer 1M MVR34	0.1150	0.1020	0.0935	0.0850
TRMVR 2K2 SMD ROHM	SMD R trimmer 2.2K MVR34	0.1150	0.1020	0.0935	0.0850
TRMVR 22K SMD ROHM	SMD R trimmer 22K MVR34	0.1150	0.1020	0.0935	0.0850
TRMVR 47K SMD ROHM	SMD R trimmer 47K MVR34	0.1150	0.1020	0.0935	0.0850

Potentiometers

		1-9	10-99	100-499	500+
POT16K1-LIN500R	Linear potentiometer 500R 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241
POT16K1-LIN1K	Linear potentiometer 1K 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241
POT16K1-LIN5K	Linear potentiometer 5K 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241

Potentiometers

		1-9	10-99	100-499	500+
POT16K1-LIN10K	Linear potentiometer 10K 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241
POT16K1-LIN50K	Linear potentiometer 50K 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241
POT16K1-LIN100K	Linear potentiometer 100K 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241
POT16K1-LIN500K	Linear potentiometer 500K 20%, Horiz. Type P.C.B.	0.349	0.291	0.272	0.241
POTSW16KN1-LIN10K	Linear potentiometer with switch 10K 20%, P.C.B.	0.591	0.492	0.461	0.408
POT16T1-LIN2x10K	Dual linear potent. 10K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LIN2x22K	Dual linear potent. 22K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LIN2x47K	Dual linear potent. 47K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LIN2x100K	Dual linear potent. 100K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LOG2x10K	Dual log. potent. 10K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LOG2x22K	Dual log. potent. 22K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LOG2x47K	Dual log. potent. 47K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-LOG2x100K	Dual log. potent. 100K 20%, Horiz. Type P.C.B.	0.560	0.484	0.452	0.400
POT16T1-ALOG2x250K	Dual log. potent. 250K 20%, Horiz. Type P.C.B.	0.885	0.765	0.715	0.632
POT16T3-R-LIN2x10K	Dual linear potent.10K 20%, Vertical Type P.C.B.	0.625	0.540	0.504	0.446
POT16T3-R-LIN2x22K	Dual linear potent.22K 20%, Vertical Type P.C.B.	0.625	0.540	0.504	0.446
POT16T3-R-LIN2x47K	Dual linear potent.47K 20%, Vertical Type P.C.B.	0.625	0.540	0.504	0.446
POT16T3-R-LIN2x100K	Dual linear potent.100K 20%, Vertical Type P.C.B.	0.625	0.540	0.504	0.446
POTSLS60V3-LIN10K	Slide linear potentiometer 10K 20% P.C.B.	0.631	0.546	0.510	0.451
POTSLS60V3-LIN47K	Slide linear potentiometer 47K 20% P.C.B.	0.631	0.546	0.510	0.451
POTSLS60V3-LIN100K	Slide linear potentiometer 100K 20% P.C.B.	0.631	0.546	0.510	0.451
POTSLS60V3-LOG10K	Slide logarithmic potentiometer 10K 20% P.C.B.	0.631	0.546	0.510	0.451
POTSLS60V3-LOG47K	Slide logarithmic potentiometer 47K 20% P.C.B.	0.631	0.546	0.510	0.451
POTSLS60V3-LOG100K	Slide logarithmic potentiometer 100K 20% P.C.B.	0.631	0.546	0.510	0.451



POT16K1



POT16T1



POTSLS60V3



POTRK2122G

		1-4	5-24	25-99	100+
POTRK2122G-LIN2x20K	Dual linear snap-in potentiometer 20K 20%	4.576	4.100	3.953	3.661
POTRK2122G-LIN2x50K	Dual linear snap-in potentiometer 50K 20%	4.576	4.100	3.953	3.661
POTRK2122G-LIN2x100K	Dual linear snap-in potentiometer 100K 20%	4.576	4.100	3.953	3.661
POTRK2122G-LOG2x10K	Dual logarithmic snap-in potentiometer 10K 20%	4.441	3.979	3.837	3.553
POTRK2122G-LOG2x22K	Dual logarithmic snap-in potentiometer 22K 20%	4.441	3.979	3.837	3.553
POTRK2122G-LOG2x47K	Dual logarithmic snap-in potentiometer 47K 20%	4.441	3.979	3.837	3.553
KNOB ZK-5109.12	Knob Ø12mm	0.195	0.175	0.169	0.156
KNOB ZK-5111.16	Knob Ø16mm	0.259	0.232	0.224	0.207
KNOB ZK-5115.18	Knob Ø18mm	0.264	0.236	0.228	0.211

Digital potentiometers MICROCHIP

		1-4	5-24	25-99	100+
MCP4022T-103E/CH	SOT23-6 Digital Pot, 64 steps, Up/Down, 10kohms 50ppm, single channel	0.810	0.648	0.618	0.600
MCP41010-I/SN	NS08 Digital Pot, 256 steps, SPI, 10kohms, single ch	1.377	1.102	1.051	1.020
MCP41010-I/P	DIP8 Digital Pot, 256 steps, SPI, 10kohms, single ch	1.377	1.102	1.051	1.020
MCP41050-I/P	DIP8 Digital Pot, 256 steps, SPI, 50kohms, single ch	1.377	1.102	1.051	1.020
MCP41050-I/SN	NS08 Digital Pot, 256 steps, SPI, 50kohms, single ch	1.377	1.102	1.051	1.020
MCP41100-I/P	DIP8 Digital Pot, 256 steps, SPI, 100kohms, single ch	1.377	1.102	1.051	1.020
MCP41100-I/SN	NS08 Digital Pot, 256 steps, SPI, 100kohms, single ch	1.377	1.102	1.051	1.020
MCP42010-I/P	DIP14 Digital Pot, 256 steps, SPI, 10kohms, dual ch	2.052	1.642	1.566	1.520
MCP42010-I/SL	NS08 Digital Pot, 256 steps, SPI, 10kohms, dual ch	2.052	1.642	1.566	1.520
MCP42050-I/SL	NS08 Digital Pot, 256 steps, SPI, 50kohms, dual ch	2.052	1.642	1.566	1.520
MCP42050-I/P	DIP14 Digital Pot, 256 steps, SPI, 50kohms, dual ch	2.052	1.642	1.566	1.520
MCP42100-I/SL	NS08 Digital Pot, 256 steps, SPI, 100kohms, dual ch	2.052	1.642	1.566	1.520
MCP42100-I/P	DIP14 Digital Pot, 256 steps, SPI, 100kohms, dual ch	2.052	1.642	1.566	1.520

Ceramic Capacitors SMD 0402

		1-9	10-99	100-999	1000-3999	4000+
C0402 100nF 16V Y5V	100nF 16V Y5V +80 -20%	0.0150	0.0051	0.0031	0.0029	0.0026

Ceramic Capacitors SMD 0603 SAMSUNG

		1-9	10-99	100-999	1000-3999	4000+
C0603 0.5pF 50V COG SAMSUNG	0.5pF 50V COG ±0.25pF	0.0160	0.0052	0.0031	0.0029	0.0026
C0603 1.0pF 50V COG SAMSUNG	1.0pF 50V COG ±0.25pF	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 1.5pF 50V COG SAMSUNG	1.5pF 50V COG ±0.25pF	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 1.8pF 50V COG SAMSUNG	1.8pF 50V COG ±0.25pF	0.0160	0.0055	0.0033	0.0031	0.0027

Ceramic Capacitors SMD 0603 SAMSUNG

		1-9	10-99	100-999	1000-3999	4000+
C0603 2.2pF 50V COG SAMSUNG	2.2pF 50V COG ±0.25pF	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 3.3pF 50V COG SAMSUNG	3.3pF 50V COG ±0.25pF	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 3.9pF 50V COG SAMSUNG	3.9pF 50V COG ±0.25pF	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 4.7pF 50V COG SAMSUNG	4.7pF 50V COG ±0.25pF	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 5.1pF 50V COG SAMSUNG	5.1pF 50V COG ±0.25pF	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 5.6pF 50V COG SAMSUNG	5.6pF 50V COG ±0.25pF	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 6.8pF 50V COG SAMSUNG	6.8pF 50V COG ±0.25pF	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 8.2pF 50V COG SAMSUNG	8.2pF 50V COG ±0.25pF	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 10pF 50V COG SAMSUNG	10pF 50V COG ±0.25pF	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 12pF 50V COG SAMSUNG	12pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 15pF 50V COG SAMSUNG	15pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 16pF 50V COG SAMSUNG	16pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 18pF 50V COG SAMSUNG	18pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 20pF 50V COG SAMSUNG	20pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 22pF 50V COG SAMSUNG	22pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 24pF 50V COG SAMSUNG	24pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 27pF 50V COG SAMSUNG	27pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 30pF 50V COG SAMSUNG	30pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 33pF 50V COG SAMSUNG	33pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 39pF 50V COG SAMSUNG	39pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 47pF 50V COG SAMSUNG	47pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 51pF 50V COG SAMSUNG	51pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 56pF 50V COG SAMSUNG	56pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 62pF 50V COG SAMSUNG	62pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 68pF 50V COG SAMSUNG	68pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 100pF 50V COG SAMSUNG	100pF 50V COG ±5%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 120pF 50V COG SAMSUNG	120pF 50V COG ±5%	0.0200	0.0068	0.0041	0.0039	0.0034
C0603 150pF 50V COG SAMSUNG	150pF 50V COG ±5%	0.0220	0.0074	0.0044	0.0042	0.0037
C0603 180pF 50V COG SAMSUNG	180pF 50V COG ±5%	0.0240	0.0080	0.0048	0.0045	0.0040
C0603 200pF 50V COG SAMSUNG	200pF 50V COG ±5%	0.0290	0.0095	0.0057	0.0054	0.0048
C0603 220pF 50V COG SAMSUNG	220pF 50V COG ±5%	0.0220	0.0074	0.0044	0.0042	0.0037
C0603 270pF 50V COG SAMSUNG	270pF 50V COG ±5%	0.0310	0.0103	0.0062	0.0059	0.0052
C0603 330pF 50V COG SAMSUNG	330pF 50V COG ±5%	0.0310	0.0103	0.0062	0.0059	0.0052
C0603 330pF 50V X7R SAMSUNG	330pF 50V X7R ±10%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 390pF 50V COG SAMSUNG	390pF 50V COG ±5%	0.0310	0.0103	0.0062	0.0059	0.0052
C0603 470pF 50V COG SAMSUNG	470pF 50V COG ±5%	0.0310	0.0103	0.0062	0.0059	0.0052
C0603 470pF 50V X7R SAMSUNG	470pF 50V X7R ±10%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 680pF 50V X7R SAMSUNG	680pF 50V X7R ±10%	0.0160	0.0055	0.0033	0.0031	0.0027
C0603 1.0nF 50V COG SAMSUNG	1.0nF 50V COG ±5%	0.0450	0.0151	0.0090	0.0086	0.0075
C0603 1.0nF 50V X7R SAMSUNG	1.0nF 50V X7R ±10%	0.0160	0.0054	0.0032	0.0031	0.0027
C0603 1.5nF 50V X7R SAMSUNG	1.5nF 50V X7R ±10%	0.0160	0.0054	0.0032	0.0031	0.0027
C0603 2.2nF 50V X7R SAMSUNG	2.2nF 50V X7R ±10%	0.0160	0.0052	0.0031	0.0029	0.0026
C0603 2.7nF 50V X7R SAMSUNG	2.7nF 50V X7R ±10%	0.0160	0.0052	0.0031	0.0029	0.0026
C0603 3.3nF 50V X7R SAMSUNG	3.3nF 50V X7R ±10%	0.0160	0.0052	0.0031	0.0029	0.0026
C0603 3.9nF 50V X7R SAMSUNG	3.9nF 50V X7R ±10%	0.0160	0.0052	0.0031	0.0029	0.0026
C0603 4.7nF 50V X7R SAMSUNG	4.7nF 50V X7R ±10%	0.0160	0.0052	0.0031	0.0029	0.0026
C0603 5.6nF 50V X7R SAMSUNG	5.6nF 50V X7R ±10%	0.0160	0.0052	0.0031	0.0029	0.0026
C0603 6.8nF 50V X7R SAMSUNG	6.8nF 50V X7R ±10%	0.0160	0.0052	0.0031	0.0029	0.0026
C0603 10nF 50V X7R SAMSUNG	10nF 50V X7R ±10%	0.0160	0.0052	0.0031	0.0029	0.0026
C0603 15nF 50V X7R SAMSUNG	15nF 50V X7R ±10%	0.0210	0.0070	0.0042	0.0040	0.0035
C0603 22nF 50V X7R SAMSUNG	22nF 50V X7R ±10%	0.0210	0.0070	0.0042	0.0040	0.0035
C0603 33nF 50V X7R SAMSUNG	33nF 50V X7R ±10%	0.0290	0.0095	0.0057	0.0054	0.0048
C0603 47nF 25V X7R SAMSUNG	47nF 25V X7R ±10%	0.0290	0.0095	0.0057	0.0054	0.0048
C0603 47nF 50V X7R SAMSUNG	47nF 50V X7R ±10%	0.0290	0.0095	0.0057	0.0054	0.0048
C0603 100nF 16V X7R SAMSUNG	100nF 16V X7R ±10%	0.0170	0.0056	0.0033	0.0032	0.0028
C0603 100nF 25V X7R SAMSUNG	100nF 25V X7R ±10%	0.0210	0.0070	0.0042	0.0040	0.0035
C0603 100nF 25V Y5V SAMSUNG	100nF 25V Y5V +80-20%	0.0140	0.0047	0.0028	0.0027	0.0024
C0603 100nF 50V X7R SAMSUNG	100nF 50V X7R ±10%	0.0190	0.0064	0.0039	0.0037	0.0032
C0603 100nF 50V Y5V SAMSUNG	100nF 50V Y5V +80-20%	0.0170	0.0055	0.0033	0.0031	0.0028
C0603 220nF 25V Y5V SAMSUNG	220nF 25V Y5V +80-20%	0.0290	0.0098	0.0059	0.0056	0.0049
C0603 330nF 25V Y5V SAMSUNG	330nF 25V Y5V +80-20%	0.0590	0.0197	0.0118	0.0112	0.0098
C0603 1.0uF 10V X5R SAMSUNG	1.0uF 10V X5R ±10%	0.0580	0.0193	0.0116	0.0110	0.0096

Ceramic Capacitors SMD 0603

		1-9	10-99	100-999	1000-3999	4000+
C0603 0.5pF 50V COG	0.5pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 1.0pF 50V COG	1.0pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 1.2pF 50V COG	1.2pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 1.5pF 50V COG	1.5pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 1.8pF 50V COG	1.8pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 2.0pF 50V COG	2.0pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 2.2pF 50V COG	2.2pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 2.7pF 50V COG	2.7pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 3.0pF 50V COG	3.0pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 3.3pF 50V COG	3.3pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 3.9pF 50V COG	3.9pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 4.0pF 50V COG	4.0pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 4.7pF 50V COG	4.7pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 5.0pF 50V COG	5.0pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 5.6pF 50V COG	5.6pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 6.0pF 50V COG	6.0pF 50V COG ±0.5pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 6.8pF 50V COG	6.8pF 50V COG ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025

Ceramic Capacitors SMD 0603

1-9 10-99 100-999 1000-3999 4000+

C0603 7.0pF 50V C0G	7.0pF 50V C0G ±0.5pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 8.0pF 50V C0G	8.0pF 50V C0G ±0.5pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 8.2pF 50V C0G	8.2pF 50V C0G ±0.5pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 9.0pF 50V C0G	9.0pF 50V C0G ±0.25pF	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 10pF 50V C0G	10pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 11pF 50V C0G	11pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 12pF 50V C0G	12pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 13pF 50V C0G	13pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 15pF 50V C0G	15pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 16pF 50V C0G	16pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 18pF 50V C0G	18pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 20pF 50V C0G	20pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 22pF 50V C0G	22pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 24pF 50V C0G	24pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 27pF 50V C0G	27pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 30pF 50V C0G	30pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 33pF 50V C0G	33pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 36pF 50V C0G	36pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 39pF 50V C0G	39pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 43pF 50V C0G	43pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 47pF 50V C0G	47pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 56pF 50V C0G	56pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 68pF 50V C0G	68pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 82pF 50V C0G	82pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 100pF 50V C0G	100pF 50V C0G ±5%	0.0150	0.0050	0.0030	0.0028	0.0025
C0603 120pF 50V C0G	120pF 50V C0G ±5%	0.0190	0.0063	0.0038	0.0036	0.0032
C0603 150pF 50V C0G	150pF 50V C0G ±5%	0.0190	0.0063	0.0038	0.0036	0.0032
C0603 180pF 50V C0G	180pF 50V C0G ±5%	0.0190	0.0063	0.0038	0.0036	0.0032
C0603 220pF 50V C0G	220pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0603 270pF 50V C0G	270pF 50V C0G ±5%	0.0290	0.0097	0.0058	0.0055	0.0048
C0603 330pF 50V C0G	330pF 50V C0G ±5%	0.0290	0.0097	0.0058	0.0055	0.0048
C0603 330pF 50V X7R	330pF 50V X7R ±10%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 390pF 50V C0G	390pF 50V C0G ±5%	0.0280	0.0094	0.0056	0.0053	0.0047
C0603 470pF 50V C0G	470pF 50V C0G ±5%	0.0280	0.0094	0.0056	0.0053	0.0047
C0603 470pF 50V X7R	470pF 50V X7R ±10%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 680pF 50V C0G	680pF 50V C0G ±5%	0.0360	0.0121	0.0073	0.0069	0.0061
C0603 820pF 50V X7R	820pF 50V X7R ±10%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 1.0nF 50V X7R	1.0nF 50V X7R ±10%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 1.5nF 50V X7R	1.5nF 50V X7R ±10%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 2.2nF 50V X7R	2.2nF 50V X7R ±10%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 2.2nF 50V Y5V	2.2nF 50V Y5V +80-20%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 3.3nF 50V X7R	3.3nF 50V X7R ±10%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 4.7nF 50V X7R	4.7nF 50V X7R ±10%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 5.6nF 50V X7R	5.6nF 50V X7R ±10%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 6.8nF 50V X7R	6.8nF 50V X7R ±10%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 10nF 50V X7R	10nF 50V X7R ±10%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 12nF 50V X7R	12nF 50V X7R ±10%	0.0220	0.0075	0.0045	0.0042	0.0037
C0603 15nF 50V X7R	15nF 50V X7R ±10%	0.0260	0.0086	0.0052	0.0049	0.0043
C0603 18nF 50V X7R	18nF 50V X7R ±10%	0.0210	0.0072	0.0043	0.0041	0.0036
C0603 22nF 50V X7R	22nF 50V X7R ±10%	0.0180	0.0061	0.0036	0.0035	0.0030
C0603 33nF 25V X7R	33nF 25V X7R ±10%	0.0240	0.0082	0.0049	0.0046	0.0041
C0603 33nF 50V X7R	33nF 50V X7R ±10%	0.0240	0.0082	0.0049	0.0046	0.0041
C0603 47nF 25V X7R	47nF 25V X7R ±10%	0.0260	0.0086	0.0052	0.0049	0.0043
C0603 47nF 50V X7R	47nF 50V X7R ±10%	0.0240	0.0082	0.0049	0.0046	0.0041
C0603 47nF 50V Y5V	47nF 50V Y5V +80-20%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 68nF 25V X7R	68nF 25V X7R ±10%	0.0280	0.0094	0.0057	0.0054	0.0047
C0603 82nF 16V X7R	82nF 16V X7R ±10%	0.0620	0.0206	0.0124	0.0118	0.0103
C0603 100nF 50V X7R	100nF 50V X7R ±10%	0.0170	0.0056	0.0034	0.0032	0.0028
C0603 100nF 50V Y5V	100nF 50V Y5V +80-20%	0.0130	0.0043	0.0026	0.0025	0.0022
C0603 150nF 25V X7R	150nF 25V X7R ±10%	0.0250	0.0084	0.0051	0.0048	0.0042
C0603 220nF 25V Y5V	220nF 25V Y5V +80-20%	0.0250	0.0084	0.0051	0.0048	0.0042
C0603 220nF 50V Y5V	220nF 50V Y5V +80-20%	0.0250	0.0084	0.0051	0.0048	0.0042
C0603 330nF 16V X5R	330nF 16V X5R ±10%	0.0400	0.0134	0.0080	0.0076	0.0067
C0603 470nF 25V X7R	470nF 25V X7R ±10%	0.0510	0.0171	0.0102	0.0097	0.0085
C0603 680nF 10V X5R	680nF 10V X5R ±10%	0.0460	0.0155	0.0093	0.0088	0.0077
C0603 1.0uF 10V X5R	1.0uF 10V X5R ±10%	0.0590	0.0197	0.0118	0.0113	0.0099

Ceramic Capacitors SMD 0805 SAMSUNG

1-9 10-99 100-999 1000-3999 4000+

C0805 0.5pF 50V C0G SAMSUNG	0.5pF 50V C0G ±0.25pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 1.0pF 50V C0G SAMSUNG	1.0pF 50V C0G ±0.25pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 1.2pF 50V C0G SAMSUNG	1.2pF 50V C0G ±0.25pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 1.5pF 50V C0G SAMSUNG	1.5pF 50V C0G ±0.25pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 1.8pF 50V C0G SAMSUNG	1.8pF 50V C0G ±0.25pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 2.2pF 50V C0G SAMSUNG	2.2pF 50V C0G ±0.25pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 2.4pF 50V C0G SAMSUNG	2.4pF 50V C0G ±0.25pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 2.7pF 50V C0G SAMSUNG	2.7pF 50V C0G ±0.25pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 3.0pF 50V C0G SAMSUNG	3.0pF 50V C0G ±0.25pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 3.3pF 50V C0G SAMSUNG	3.3pF 50V C0G ±0.25pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 3.6pF 50V C0G SAMSUNG	3.6pF 50V C0G ±0.25pF	0.0420	0.0140	0.0084	0.0080	0.0070
C0805 3.9pF 50V C0G SAMSUNG	3.9pF 50V C0G ±0.25pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 4.7pF 50V C0G SAMSUNG	4.7pF 50V C0G ±0.25pF	0.0250	0.0083	0.0050	0.0047	0.0042

Ceramic Capacitors SMD 0805 SAMSUNG

		1-9	10-99	100-999	1000-3999	4000+
C0805 5.6pF 50V COG SAMSUNG	5.6pF 50V COG ±0.5pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 6.8pF 50V COG SAMSUNG	6.8pF 50V COG ±0.5pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 8.2pF 50V COG SAMSUNG	8.2pF 50V COG ±0.5pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 9.1pF 50V COG SAMSUNG	9.1pF 50V COG ±0.5pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 10pF 50V COG SAMSUNG	10pF 50V COG ±0.5pF	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 12pF 50V COG SAMSUNG	12pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 13pF 50V COG SAMSUNG	13pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 15pF 50V COG SAMSUNG	15pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 18pF 50V COG SAMSUNG	18pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 20pF 50V COG SAMSUNG	20pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 22pF 50V COG SAMSUNG	22pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 24pF 50V COG SAMSUNG	24pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 27pF 50V COG SAMSUNG	27pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 30pF 50V COG SAMSUNG	30pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 33pF 50V COG SAMSUNG	33pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 36pF 50V COG SAMSUNG	36pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 39pF 50V COG SAMSUNG	39pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 43pF 50V COG SAMSUNG	43pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 47pF 50V COG SAMSUNG	47pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 51pF 50V COG SAMSUNG	51pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 56pF 50V COG SAMSUNG	56pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 62pF 50V COG SAMSUNG	62pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 68pF 50V COG SAMSUNG	68pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 82pF 50V COG SAMSUNG	82pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 91pF 50V COG SAMSUNG	91pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 100pF 50V COG SAMSUNG	100pF 50V COG ±5%	0.0250	0.0083	0.0050	0.0047	0.0042
C0805 120pF 50V COG SAMSUNG	120pF 50V COG ±5%	0.0340	0.0112	0.0067	0.0064	0.0056
C0805 130pF 50V COG SAMSUNG	130pF 50V COG ±5%	0.0370	0.0123	0.0074	0.0070	0.0061
C0805 150pF 50V COG SAMSUNG	150pF 50V COG ±5%	0.0360	0.0119	0.0071	0.0068	0.0059
C0805 180pF 50V COG SAMSUNG	180pF 50V COG ±5%	0.0360	0.0119	0.0071	0.0068	0.0059
C0805 200pF 50V COG SAMSUNG	200pF 50V COG ±5%	0.0360	0.0119	0.0071	0.0068	0.0059
C0805 220pF 50V COG SAMSUNG	220pF 50V COG ±5%	0.0360	0.0119	0.0071	0.0068	0.0059
C0805 220pF 50V X7R SAMSUNG	220pF 50V X7R ±10%	0.0240	0.0079	0.0047	0.0045	0.0040
C0805 240pF 50V COG SAMSUNG	240pF 50V COG ±5%	0.0630	0.0211	0.0127	0.0120	0.0105
C0805 270pF 50V COG SAMSUNG	270pF 50V COG ±5%	0.0360	0.0119	0.0071	0.0068	0.0059
C0805 330pF 50V COG SAMSUNG	330pF 50V COG ±5%	0.0380	0.0127	0.0076	0.0073	0.0064
C0805 330pF 50V X7R SAMSUNG	330pF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 390pF 50V COG SAMSUNG	390pF 50V COG ±5%	0.0490	0.0163	0.0098	0.0093	0.0081
C0805 470pF 50V COG SAMSUNG	470pF 50V COG ±5%	0.0490	0.0163	0.0098	0.0093	0.0081
C0805 470pF 50V X7R SAMSUNG	470pF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 560pF 50V COG SAMSUNG	560pF 50V COG ±5%	0.0700	0.0233	0.0140	0.0133	0.0117
C0805 560pF 50V X7R SAMSUNG	560pF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 680pF 50V COG SAMSUNG	680pF 50V COG ±5%	0.0760	0.0254	0.0153	0.0145	0.0127
C0805 680pF 50V X7R SAMSUNG	680pF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 820pF 50V COG SAMSUNG	820pF 50V COG ±5%	0.0760	0.0254	0.0153	0.0145	0.0127
C0805 820pF 50V X7R SAMSUNG	820pF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 1.0nF 50V COG SAMSUNG	1.0nF 50V COG ±5%	0.0600	0.0200	0.0120	0.0114	0.0100
C0805 1.0nF 50V X7R SAMSUNG	1.0nF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 1.2nF 50V COG SAMSUNG	1.2nF 50V COG ±5%	0.1060	0.0352	0.0211	0.0201	0.0176
C0805 1.2nF 50V X7R SAMSUNG	1.2nF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 1.5nF 50V X7R SAMSUNG	1.5nF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 1.8nF 50V X7R SAMSUNG	1.8nF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 2.2nF 50V COG SAMSUNG	2.2nF 50V COG ±5%	0.1210	0.0403	0.0242	0.0230	0.0201
C0805 2.2nF 50V X7R SAMSUNG	2.2nF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 2.7nF 50V X7R SAMSUNG	2.7nF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 3.3nF 50V X7R SAMSUNG	3.3nF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 3.9nF 50V X7R SAMSUNG	3.9nF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 4.7nF 50V X7R SAMSUNG	4.7nF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 5.6nF 50V X7R SAMSUNG	5.6nF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 6.8nF 50V X7R SAMSUNG	6.8nF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 8.2nF 50V X7R SAMSUNG	8.2nF 50V X7R ±10%	0.0240	0.0080	0.0048	0.0046	0.0040
C0805 10nF 50V X7R SAMSUNG	10nF 50V X7R ±10%	0.0240	0.0075	0.0045	0.0043	0.0037
C0805 10nF 100V X7R SAMSUNG	10nF 100V X7R ±10%	0.0310	0.0102	0.0061	0.0058	0.0051
C0805 12nF 50V X7R SAMSUNG	12nF 50V X7R ±10%	0.0340	0.0115	0.0069	0.0066	0.0057
C0805 15nF 50V X7R SAMSUNG	15nF 50V X7R ±10%	0.0340	0.0115	0.0069	0.0066	0.0057
C0805 18nF 50V X7R SAMSUNG	18nF 50V X7R ±10%	0.0340	0.0115	0.0069	0.0066	0.0057
C0805 22nF 50V X7R SAMSUNG	22nF 50V X7R ±10%	0.0340	0.0115	0.0069	0.0066	0.0057
C0805 22nF 50V Y5V SAMSUNG	22nF 50V Y5V +80-20%	0.0350	0.0118	0.0071	0.0067	0.0059
C0805 22nF 100V X7R SAMSUNG	22nF 100V X7R ±10%	0.0510	0.0169	0.0101	0.0096	0.0084
C0805 27nF 50V X7R SAMSUNG	27nF 50V X7R ±10%	0.0360	0.0119	0.0071	0.0068	0.0060
C0805 33nF 50V X7R SAMSUNG	33nF 50V X7R ±10%	0.0360	0.0119	0.0071	0.0068	0.0060
C0805 39nF 50V X7R SAMSUNG	39nF 50V X7R ±10%	0.0410	0.0136	0.0082	0.0078	0.0068
C0805 47nF 50V X7R SAMSUNG	47nF 50V X7R ±10%	0.0410	0.0136	0.0082	0.0078	0.0068
C0805 47nF 50V Y5V SAMSUNG	47nF 50V Y5V +80-20%	0.0320	0.0106	0.0064	0.0060	0.0053
C0805 56nF 50V X7R SAMSUNG	56nF 50V X7R ±10%	0.0670	0.0225	0.0135	0.0128	0.0112
C0805 68nF 50V X7R SAMSUNG	68nF 50V X7R ±10%	0.0670	0.0225	0.0135	0.0128	0.0112
C0805 68nF 50V Y5V SAMSUNG	68nF 50V Y5V +80-20%	0.0360	0.0121	0.0073	0.0069	0.0060
C0805 82nF 50V X7R SAMSUNG	82nF 50V X7R ±10%	0.0730	0.0242	0.0145	0.0138	0.0121
C0805 100nF 50V X7R SAMSUNG	100nF 50V X7R ±10%	0.0320	0.0108	0.0065	0.0062	0.0054
C0805 100nF 50V Y5V SAMSUNG	100nF 50V Y5V +80-20%	0.0260	0.0086	0.0052	0.0049	0.0043
C0805 150nF 50V X7R SAMSUNG	150nF 50V X7R ±10%	0.0800	0.0268	0.0161	0.0153	0.0134
C0805 150nF 50V Y5V SAMSUNG	150nF 50V Y5V +80-20%	0.0510	0.0170	0.0102	0.0097	0.0085

Ceramic Capacitors SMD 0805 SAMSUNG

1-9 10-99 100-999 1000-3999 4000+

C0805 220nF 25V X7R SAMSUNG	220nF 25V X7R ±10%	0.0720	0.0242	0.0145	0.0138	0.0121
C0805 220nF 50V X7R SAMSUNG	220nF 50V X7R ±10%	0.0720	0.0242	0.0145	0.0138	0.0121
C0805 220nF 50V Y5V SAMSUNG	220nF 50V Y5V +80-20%	0.0580	0.0193	0.0116	0.0110	0.0097
C0805 330nF 50V Y5V SAMSUNG	330nF 50V Y5V +80-20%	0.0720	0.0242	0.0145	0.0138	0.0121
C0805 470nF 50V Y5V SAMSUNG	470nF 50V Y5V +80-20%	0.0720	0.0242	0.0145	0.0138	0.0121
C0805 1.0uF 16V X7R SAMSUNG	1.0uF 16V X7R ±10%	0.0880	0.0293	0.0176	0.0167	0.0147
C0805 1.0uF 16V Y5V SAMSUNG	1.0uF 16V Y5V +80-20%	0.0570	0.0191	0.0115	0.0109	0.0095
C0805 1.0uF 50V Y5V SAMSUNG	1.0uF 50V Y5V +80-20%	0.0570	0.0191	0.0115	0.0109	0.0095
C0805 2.2uF 10V X7R SAMSUNG	2.2uF 10V X7R ±10%	0.0810	0.0368	0.0265	0.0253	0.0230
C0805 2.2uF 16V Y5V SAMSUNG	2.2uF 16V Y5V +80-20%	0.0650	0.0299	0.0215	0.0205	0.0187

Ceramic Capacitors SMD 0805

1-9 10-99 100-999 1000-3999 4000+

C0805 0.5pF 50V C0G	0.5pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 1.0pF 50V C0G	1.0pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 1.2pF 50V C0G	1.2pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 1.5pF 50V C0G	1.5pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 1.8pF 50V C0G	1.8pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 2.2pF 50V C0G	2.2pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 2.4pF 50V C0G	2.4pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 2.7pF 50V C0G	2.7pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 3.0pF 50V C0G	3.0pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 3.3pF 50V C0G	3.3pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 3.6pF 50V C0G	3.6pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 3.9pF 50V C0G	3.9pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 4.0pF 50V C0G	4.0pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 4.7pF 50V C0G	4.7pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 5.0pF 50V C0G	5.0pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 5.1pF 50V C0G	5.1pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 5.6pF 50V C0G	5.6pF 50V C0G ±0.5pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 6.0pF 50V C0G	6.0pF 50V C0G ±0.5pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 6.8pF 50V C0G	6.8pF 50V C0G ±0.5pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 8.0pF 50V C0G	8.0pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 8.2pF 50V C0G	8.2pF 50V C0G ±0.25pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 9.0pF 50V C0G	9.0pF 50V C0G ±0.5pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 9.1pF 50V C0G	9.1pF 50V C0G ±0.5pF	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 10pF 50V C0G	10pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 12pF 50V C0G	12pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 13pF 50V C0G	13pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 15pF 50V C0G	15pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 18pF 50V C0G	18pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 20pF 50V C0G	20pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 22pF 50V C0G	22pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 24pF 50V C0G	24pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 27pF 50V C0G	27pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 33pF 50V C0G	33pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 36pF 50V C0G	36pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 39pF 50V C0G	39pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 43pF 50V C0G	43pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 47pF 50V C0G	47pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 51pF 50V C0G	51pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 56pF 50V C0G	56pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 62pF 50V C0G	62pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 68pF 50V C0G	68pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 75pF 50V C0G	75pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 82pF 50V C0G	82pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 91pF 50V C0G	91pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 100pF 50V C0G	100pF 50V C0G ±5%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 150pF 50V C0G	150pF 50V C0G ±5%	0.0290	0.0096	0.0057	0.0054	0.0048
C0805 150pF 50V X7R	150pF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 160pF 50V C0G	160pF 50V C0G ±5%	0.0310	0.0105	0.0063	0.0060	0.0052
C0805 180pF 50V C0G	180pF 50V C0G ±5%	0.0310	0.0105	0.0063	0.0060	0.0052
C0805 200pF 50V C0G	200pF 50V C0G ±5%	0.0310	0.0105	0.0063	0.0060	0.0052
C0805 220pF 50V C0G	220pF 50V C0G ±5%	0.0310	0.0105	0.0063	0.0060	0.0052
C0805 220pF 50V X7R	220pF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 240pF 50V C0G	240pF 50V C0G ±5%	0.0370	0.0122	0.0073	0.0070	0.0061
C0805 270pF 50V C0G	270pF 50V C0G ±5%	0.0350	0.0116	0.0070	0.0066	0.0058
C0805 270pF 50V X7R	270pF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 330pF 50V C0G	330pF 50V C0G ±5%	0.0350	0.0116	0.0070	0.0066	0.0058
C0805 330pF 50V X7R	330pF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 390pF 50V C0G	390pF 50V C0G ±5%	0.0390	0.0131	0.0079	0.0075	0.0066
C0805 470pF 50V C0G	470pF 50V C0G ±5%	0.0390	0.0131	0.0079	0.0075	0.0066
C0805 470pF 50V X7R	470pF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 510pF 50V X7R	510pF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 560pF 50V C0G	560pF 50V C0G ±5%	0.0470	0.0155	0.0093	0.0089	0.0078
C0805 560pF 50V X7R	560pF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 680pF 50V C0G	680pF 50V C0G ±5%	0.0560	0.0185	0.0111	0.0106	0.0093
C0805 680pF 50V X7R	680pF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 820pF 50V C0G	820pF 50V C0G ±5%	0.0650	0.0215	0.0129	0.0123	0.0108
C0805 820pF 50V X7R	820pF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 1.0nF 50V C0G	1.0nF 50V C0G ±5%	0.0470	0.0155	0.0093	0.0089	0.0078
C0805 1.0nF 50V X7R	1.0nF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034

Ceramic Capacitors SMD 0805

		1-9	10-99	100-999	1000-3999	4000+
C0805 1.2nF 50V X7R	1.2nF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 1.5nF 50V X7R	1.5nF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 2.2nF 50V X7R	2.2nF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 2.7nF 50V X7R	2.7nF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 3.3nF 50V X7R	3.3nF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 4.7nF 50V X7R	4.7nF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 5.6nF 50V X7R	5.6nF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 10nF 50V X7R	10nF 50V X7R ±10%	0.0210	0.0069	0.0041	0.0039	0.0034
C0805 10nF 100V X7R	10nF 100V X7R ±10%	0.0470	0.0155	0.0093	0.0089	0.0078
C0805 12nF 50V X7R	12nF 50V X7R ±10%	0.0290	0.0096	0.0057	0.0054	0.0048
C0805 15nF 50V X7R	15nF 50V X7R ±10%	0.0290	0.0096	0.0057	0.0054	0.0048
C0805 22nF 50V X7R	22nF 50V X7R ±10%	0.0290	0.0096	0.0057	0.0054	0.0048
C0805 27nF 50V X7R	27nF 50V X7R ±10%	0.0330	0.0111	0.0066	0.0063	0.0055
C0805 27nF 50V Y5V	27nF 50V Y5V +80-20%	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 33nF 50V X7R	33nF 50V X7R ±10%	0.0330	0.0111	0.0066	0.0063	0.0055
C0805 47nF 50V X7R	47nF 50V X7R ±10%	0.0330	0.0111	0.0066	0.0063	0.0055
C0805 47nF 50V Y5V	47nF 50V Y5V +80-20%	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 56nF 50V Y5V	56nF 50V Y5V +80-20%	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 68nF 50V Y5V	68nF 50V Y5V +80-20%	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 82nF 50V Y5V	82nF 50V Y5V +80-20%	0.0220	0.0072	0.0043	0.0041	0.0036
C0805 100nF 50V X7R	100nF 50V X7R ±10%	0.0290	0.0096	0.0057	0.0054	0.0048
C0805 100nF 50V Y5V	100nF 50V Y5V +80-20%	0.0210	0.0071	0.0043	0.0041	0.0036
C0805 150nF 50V X7R	150nF 50V X7R ±10%	0.0470	0.0155	0.0093	0.0089	0.0078
C0805 150nF 50V Y5V	150nF 50V Y5V +80-20%	0.0380	0.0125	0.0075	0.0072	0.0063
C0805 220nF 50V X7R	220nF 50V X7R ±10%	0.0470	0.0155	0.0093	0.0089	0.0078
C0805 220nF 50V Y5V	220nF 50V Y5V +80-20%	0.0380	0.0125	0.0075	0.0072	0.0063
C0805 330nF 50V Y5V	330nF 50V Y5V +80-20%	0.0470	0.0155	0.0093	0.0089	0.0078
C0805 470nF 50V Y5V	470nF 50V Y5V +80-20%	0.0510	0.0170	0.0102	0.0097	0.0085
C0805 680nF 50V Y5V	680nF 50V Y5V +80-20%	0.0650	0.0215	0.0129	0.0123	0.0108
C0805 1.0uF 16V Y5V	1.0uF 16V Y5V +80-20%	0.0380	0.0125	0.0075	0.0072	0.0063
C0805 1.0uF 25V Y5V	1.0uF 25V Y5V +80-20%	0.0380	0.0125	0.0075	0.0072	0.0063
C0805 1.0uF 50V Y5V	1.0uF 50V Y5V +80-20%	0.0440	0.0145	0.0087	0.0083	0.0073
C0805 1.0uF 25V X5R	1.0uF 25V X5R ±10%	0.0470	0.0215	0.0155	0.0148	0.0134
C0805 2.2uF 16V Y5V	2.2uF 16V Y5V +80-20%	0.0500	0.0227	0.0163	0.0156	0.0142
C0805 2.2uF 50V X7R	2.2uF 50V X7R ±10%	0.0880	0.0400	0.0288	0.0275	0.0250
C0805 4.7uF 10V X7R	4.7uF 10V X7R ±10%	0.1080	0.0494	0.0355	0.0340	0.0309

Ceramic Capacitors SMD 1206 SAMSUNG

		1-9	10-99	100-999	1000-3999	4000+
C1206 1.5pF 50V COG SAMSUNG	1.5pF 50V COG ±0.25pF	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 2.2pF 50V COG SAMSUNG	2.2pF 50V COG ±0.25pF	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 3.3pF 50V COG SAMSUNG	3.3pF 50V COG ±0.25pF	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 4.7pF 50V COG SAMSUNG	4.7pF 50V COG ±0.25pF	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 6.8pF 50V COG SAMSUNG	6.8pF 50V COG ±0.5pF	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 10pF 50V COG SAMSUNG	10pF 50V COG ±0.5pF	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 12pF 50V COG SAMSUNG	12pF 50V COG ±5%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 15pF 50V COG SAMSUNG	15pF 50V COG ±5%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 18pF 50V COG SAMSUNG	18pF 50V COG ±5%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 22pF 50V COG SAMSUNG	22pF 50V COG ±5%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 27pF 50V COG SAMSUNG	27pF 50V COG ±5%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 33pF 50V COG SAMSUNG	33pF 50V COG ±5%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 47pF 50V COG SAMSUNG	47pF 50V COG ±5%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 56pF 50V COG SAMSUNG	56pF 50V COG ±5%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 68pF 50V COG SAMSUNG	68pF 50V COG ±5%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 82pF 50V COG SAMSUNG	82pF 50V COG ±5%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 100pF 50V COG SAMSUNG	100pF 50V COG ±5%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 150pF 50V COG SAMSUNG	150pF 50V COG ±5%	0.0730	0.0244	0.0146	0.0139	0.0122
C1206 220pF 50V COG SAMSUNG	220pF 50V COG ±5%	0.0770	0.0256	0.0154	0.0146	0.0128
C1206 220pF 50V X7R SAMSUNG	220pF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 270pF 50V COG SAMSUNG	270pF 50V COG ±5%	0.0820	0.0272	0.0163	0.0155	0.0136
C1206 330pF 50V COG SAMSUNG	330pF 50V COG ±5%	0.0820	0.0272	0.0163	0.0155	0.0136
C1206 330pF 50V X7R SAMSUNG	330pF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 470pF 50V COG SAMSUNG	470pF 50V COG ±5%	0.1030	0.0343	0.0206	0.0195	0.0171
C1206 470pF 50V X7R SAMSUNG	470pF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 560pF 50V COG SAMSUNG	560pF 50V COG ±5%	0.0980	0.0327	0.0196	0.0186	0.0163
C1206 560pF 50V X7R SAMSUNG	560pF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 680pF 50V COG SAMSUNG	680pF 50V COG ±5%	0.0980	0.0327	0.0196	0.0186	0.0163
C1206 680pF 50V X7R SAMSUNG	680pF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 820pF 50V COG SAMSUNG	820pF 50V COG ±5%	0.1060	0.0354	0.0213	0.0202	0.0177
C1206 820pF 50V X7R SAMSUNG	820pF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 1.0nF 50V COG SAMSUNG	1.0nF 50V COG ±5%	0.0960	0.0321	0.0192	0.0183	0.0160
C1206 1.0nF 50V X7R SAMSUNG	1.0nF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 1.0nF 100V X7R SAMSUNG	1.0nF 100V X7R ±10%	0.0860	0.0287	0.0172	0.0164	0.0144
C1206 1.5nF 50V X7R SAMSUNG	1.5nF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 2.2nF 50V X7R SAMSUNG	2.2nF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 3.3nF 50V X7R SAMSUNG	3.3nF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 4.7nF 50V X7R SAMSUNG	4.7nF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 6.8nF 50V X7R SAMSUNG	6.8nF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 6.8nF 500V X7R SAMSUNG	6.8nF 500V X7R ±10%	0.2010	0.0669	0.0402	0.0382	0.0335
C1206 10nF 50V X7R SAMSUNG	10nF 50V X7R ±10%	0.0670	0.0224	0.0135	0.0128	0.0112
C1206 10nF 100V X7R SAMSUNG	10nF 100V X7R ±10%	0.0820	0.0272	0.0163	0.0155	0.0136
C1206 10nF 500V X7R SAMSUNG	10nF 500V X7R ±10%	0.1420	0.0473	0.0284	0.0269	0.0236

Ceramic Capacitors SMD 1206 SAMSUNG

		1-9	10-99	100-999	1000-3999	4000+
C1206 15nF 50V X7R SAMSUNG	15nF 50V X7R ±10%	0.0700	0.0232	0.0139	0.0132	0.0116
C1206 22nF 50V X7R SAMSUNG	22nF 50V X7R ±10%	0.0700	0.0232	0.0139	0.0132	0.0116
C1206 22nF 100V X7R SAMSUNG	22nF 100V X7R ±10%	0.0910	0.0303	0.0182	0.0173	0.0152
C1206 33nF 50V X7R SAMSUNG	33nF 50V X7R ±10%	0.0800	0.0268	0.0161	0.0153	0.0134
C1206 47nF 50V X7R SAMSUNG	47nF 50V X7R ±10%	0.0790	0.0264	0.0158	0.0150	0.0132
C1206 47nF 50V Y5V SAMSUNG	47nF 50V Y5V +80-20%	0.0650	0.0217	0.0130	0.0123	0.0108
C1206 68nF 50V X7R SAMSUNG	68nF 50V X7R ±10%	0.0630	0.0286	0.0206	0.0197	0.0179
C1206 100nF 50V X7R SAMSUNG	100nF 50V X7R ±10%	0.0660	0.0220	0.0132	0.0125	0.0110
C1206 100nF 50V Y5V SAMSUNG	100nF 50V Y5V +80-20%	0.0650	0.0217	0.0130	0.0123	0.0108
C1206 100nF 100V X7R SAMSUNG	100nF 100V X7R ±10%	0.0860	0.0286	0.0172	0.0163	0.0143
C1206 150nF 50V X7R SAMSUNG	150nF 50V X7R ±10%	0.0510	0.0233	0.0168	0.0160	0.0146
C1206 220nF 50V X7R SAMSUNG	220nF 50V X7R ±10%	0.0850	0.0387	0.0278	0.0266	0.0242
C1206 220nF 50V Y5V SAMSUNG	220nF 50V Y5V +80-20%	0.0540	0.0248	0.0178	0.0170	0.0155
C1206 330nF 50V X7R SAMSUNG	330nF 50V X7R ±10%	0.0860	0.0394	0.0283	0.0271	0.0246
C1206 330nF 50V Y5V SAMSUNG	330nF 50V Y5V +80-20%	0.0660	0.0302	0.0217	0.0208	0.0189
C1206 470nF 50V X7R SAMSUNG	470nF 50V X7R ±10%	0.0770	0.0353	0.0254	0.0243	0.0221
C1206 470nF 50V Y5V SAMSUNG	470nF 50V Y5V +80-20%	0.0760	0.0347	0.0249	0.0238	0.0217
C1206 1.0uF 25V X7R SAMSUNG	1.0uF 25V X7R ±10%	0.0710	0.0322	0.0232	0.0222	0.0201
C1206 1.0uF 50V X7R SAMSUNG	1.0uF 50V X7R ±10%	0.1190	0.0543	0.0390	0.0373	0.0339
C1206 1.0uF 50V Y5V SAMSUNG	1.0uF 50V Y5V +80-20%	0.0550	0.0249	0.0179	0.0172	0.0156
C1206 2.2uF 16V X7R SAMSUNG	2.2uF 16V X7R ±10%	0.1240	0.0567	0.0408	0.0390	0.0354
C1206 10uF 10V Y5V SAMSUNG	10uF 10V Y5V +80-20%	0.0910	0.0418	0.0300	0.0287	0.0261

Ceramic Capacitors SMD 1206

		1-9	10-99	100-999	1000-3999	4000+
C1206 1.0pF 50V C0G	1.0pF 50V C0G ±0.25pF	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 1.5pF 50V C0G	1.5pF 50V C0G ±0.25pF	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 2.2pF 50V C0G	2.2pF 50V C0G ±0.25pF	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 3.3pF 50V C0G	3.3pF 50V C0G ±0.25pF	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 4.7pF 50V C0G	4.7pF 50V C0G ±0.25pF	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 6.8pF 50V C0G	6.8pF 50V C0G ±0.5pF	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 10pF 50V C0G	10pF 50V C0G ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 12pF 50V C0G	12pF 50V C0G ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 15pF 50V C0G	15pF 50V C0G ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 18pF 50V C0G	18pF 50V C0G ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 22pF 50V C0G	22pF 50V C0G ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 27pF 50V C0G	27pF 50V C0G ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 33pF 50V C0G	33pF 50V C0G ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 47pF 50V C0G	47pF 50V C0G ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 56pF 50V C0G	56pF 50V C0G ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 68pF 50V C0G	68pF 50V C0G ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 82pF 50V C0G	82pF 50V C0G ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 100pF 50V C0G	100pF 50V C0G ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 150pF 50V C0G	150pF 50V C0G ±5%	0.0740	0.0246	0.0148	0.0140	0.0123
C1206 220pF 50V C0G	220pF 50V C0G ±5%	0.0780	0.0260	0.0156	0.0148	0.0130
C1206 220pF 50V X7R	220pF 50V X7R ±10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 270pF 50V C0G	270pF 50V C0G ±5%	0.0860	0.0287	0.0172	0.0163	0.0143
C1206 330pF 50V C0G	330pF 50V C0G ±5%	0.0860	0.0287	0.0172	0.0163	0.0143
C1206 330pF 50V X7R	330pF 50V X7R ±5%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 470pF 50V C0G	470pF 50V C0G ±5%	0.0940	0.0313	0.0188	0.0179	0.0157
C1206 470pF 50V X7R	470pF 50V X7R ±10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 560pF 50V C0G	560pF 50V C0G ±5%	0.0940	0.0313	0.0188	0.0179	0.0157
C1206 560pF 50V X7R	560pF 50V X7R ±10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 680pF 50V X7R	680pF 50V X7R ±10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 820pF 50V X7R	820pF 50V X7R ±10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 1.0nF 50V X7R	1.0nF 50V X7R ±10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 1.5nF 50V X7R	1.5nF 50V X7R ±10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 2.2nF 50V X7R	2.2nF 50V X7R ±10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 3.3nF 50V X7R	3.3nF 50V X7R ±10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 4.7nF 50V X7R	4.7nF 50V X7R ±10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 6.8nF 50V X7R	6.8nF 50V X7R ±10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 10nF 50V X7R	10nF 50V X7R ±10%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 15nF 50V X7R	15nF 50V X7R ±10%	0.0740	0.0246	0.0148	0.0140	0.0123
C1206 22nF 50V X7R	22nF 50V X7R ±10%	0.0740	0.0246	0.0148	0.0140	0.0123
C1206 33nF 50V X7R	33nF 50V X7R ±10%	0.0900	0.0300	0.0180	0.0171	0.0150
C1206 47nF 50V Y5V	47nF 50V Y5V +80-20%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 68nF 50V X7R	68nF 50V X7R ±10%	0.0610	0.0277	0.0199	0.0190	0.0173
C1206 100nF 50V X7R	100nF 50V X7R ±10%	0.0550	0.0252	0.0181	0.0173	0.0158
C1206 100nF 50V Y5V	100nF 50V Y5V +80-20%	0.0480	0.0161	0.0096	0.0092	0.0080
C1206 220nF 50V X7R	220nF 50V X7R ±10%	0.0930	0.0425	0.0306	0.0292	0.0266
C1206 330nF 50V X7R	330nF 50V X7R ±10%	0.0930	0.0425	0.0306	0.0292	0.0266
C1206 330nF 50V Y5V	330nF 50V Y5V +80-20%	0.0720	0.0329	0.0236	0.0226	0.0205
C1206 470nF 50V X7R	470nF 50V X7R ±10%	0.1040	0.0475	0.0341	0.0326	0.0297
C1206 470nF 50V Y5V	470nF 50V Y5V +80-20%	0.0820	0.0376	0.0270	0.0258	0.0235
C1206 1.0uF 50V X7R	1.0uF 50V X7R ±10%	0.1040	0.0475	0.0341	0.0326	0.0297
C1206 1.0uF 50V Y5V	1.0uF 50V Y5V +80-20%	0.0710	0.0326	0.0235	0.0224	0.0204
C1206 2.2uF 16V X7R	2.2uF 16V X7R ±10%	0.1630	0.0747	0.0537	0.0513	0.0467
C1206 2.2uF 25V Y5V	2.2uF 25V Y5V +80-20%	0.0930	0.0425	0.0306	0.0292	0.0266
C1206 2.2uF 50V X7R	2.2uF 50V X7R ±10%	0.1630	0.0747	0.0537	0.0513	0.0467
C1206 4.7uF 50V Y5V	4.7uF 50V Y5V +80-20%	0.1310	0.0598	0.0430	0.0411	0.0374
C1206 10uF 10V X7R	10uF 10V X7R ±10%	0.1630	0.0747	0.0537	0.0513	0.0467
C1206 10uF 10V Y5V	10uF 10V Y5V +80-20%	0.0980	0.0450	0.0323	0.0309	0.0281

Ceramic Capacitors SMD 1210

		1-9	10-99	100-499	500-1999	2000+
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C1210 10uF 25V X5R	10uF 25V X5R ±10%	0.9730	0.3243	0.1946	0.1849	0.1622
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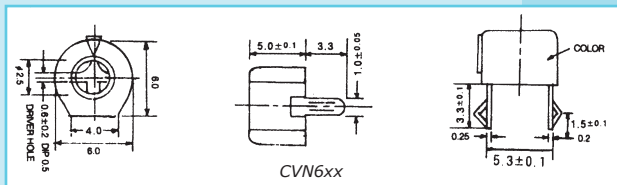
Trimmer Capacitors

	1-9	10-99	100-499	500+
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CVN605 5pF BLUE /TSC6/ CVN610 10pF WHITE CVN630 30pF GREEN CVN650 50pF BROWN	trimmer-cap. 2 - 5pF Q>500(1MHz) trimmer-cap. 3 - 10pF Q>500(1MHz) trimmer-cap. 6.2 - 30pF Q>500(1MHz) trimmer-cap. 9.8 - 50pF Q>300(1MHz)	0.097 0.098 0.098 0.098	0.080 0.082 0.082 0.082	0.075 0.077 0.077 0.077	0.067 0.068 0.068 0.068
CTSC3S 2.2-6pF BLUE SMD CTSC3S 3.5-10pF WHITE SMD CTZ3E-40C-W1-PF 40pF SMD	trimmer-cap. 2.2 - 6pF Q>500(1MHz) SMD; 3mm trimmer-cap. 3.5 - 10pF Q>500(1MHz) SMD; 3mm trimmer-cap.7 - 40pF washable SMD	0.184 0.184 0.529	0.153 0.153 0.440	0.143 0.143 0.412	0.127 0.127 0.365



CVN6xx



Ceramic Disc Capacitors

	1-9	10-99	100-999	1000-3999	4000+
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CD 1pF 50V NPO	1pF 50V NPO ±0.25pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 1.5pF 50V NPO	1.5pF 50V NPO ±0.25pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 2.2pF 50V NPO	2.2pF 50V NPO ±0.25pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 2.7pF 50V NPO	2.7pF 50V NPO ±0.25pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 3.3pF 50V NPO	3.3pF 50V NPO ±0.25pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 4.7pF 50V NPO	4.7pF 50V NPO ±0.25pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 6.8pF 50V NPO	6.8pF 50V NPO ±0.5pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 8.2pF 50V NPO	8.2pF 50V NPO ±0.5pF	0.0200	0.0071	0.0053	0.0047	0.0041
CD 10pF 50V NPO	10pF 50V NPO ±5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 12pF 50V NPO	12pF 50V NPO ±5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 15pF 50V NPO	15pF 50V NPO ±5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 20pF 50V NPO	20pF 50V NPO ±5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 22pF 50V NPO	22pF 50V NPO ±5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 27pF 50V NPO	27pF 50V NPO ±5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 33pF 50V NPO	33pF 50V NPO ±5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 47pF 50V NPO	47pF 50V NPO ±5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 68pF 50V NPO	68pF 50V NPO ±5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 82pF 50V NPO	82pF 50V NPO ±5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 100pF 50V NPO	100pF 50V NPO ±5%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 150pF 50V Y5P	150pF 50V Y5P ±10%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 220pF 50V Y5P	220pF 50V Y5P ±10%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 330pF 50V Y5P	330pF 50V Y5P ±10%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 470pF 50V Y5P	470pF 50V Y5P ±10%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 680pF 50V Y5P	680pF 50V Y5P ±10%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 1.0nF 50V Y5P	1.0nF 50V Y5P ±10%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 4.7nF 50V Y5V	4.7nF 50V Y5V +80-20%	0.0200	0.0071	0.0053	0.0047	0.0041
CD 10nF 50V Y5V	10nF 50V Y5V +80-20%	0.0200	0.0071	0.0053	0.0047	0.0041

Multilayer Ceramic Capacitors

	1-9	10-99	100-999	1000-3999	4000+
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CML 10pF 50V NPO	10pF 50V NPO ±5% P2.54	0.044	0.020	0.015	0.014	0.013
CML 12pF 50V NPO	12pF 50V NPO ±5% P2.54	0.044	0.020	0.015	0.014	0.013
CML 15pF 50V NPO	15pF 50V NPO ±5% P2.54	0.044	0.020	0.015	0.014	0.013
CML 18pF 50V NPO	18pF 50V NPO ±5% P2.54	0.044	0.020	0.015	0.014	0.013
CML 20pF 50V NPO	20pF 50V NPO ±5% P2.54	0.044	0.020	0.015	0.014	0.013
CML 22pF 50V NPO	22pF 50V NPO ±5% P2.54	0.044	0.020	0.015	0.014	0.013
CML 27pF 50V NPO	27pF 50V NPO ±5% P2.54	0.044	0.020	0.015	0.014	0.013
CML 33pF 50V NPO	33pF 50V NPO ±5% P2.54	0.044	0.020	0.015	0.014	0.013
CML 47pF 50V NPO	47pF 50V NPO ±5% P2.54	0.044	0.020	0.015	0.014	0.013
CML 68pF 50V NPO	68pF 50V NPO ±5% P2.54	0.044	0.020	0.015	0.014	0.013
CML 82pF 50V NPO	82pF 50V NPO ±5% P2.54	0.044	0.020	0.015	0.014	0.013
CML 100pF 50V NPO	100pF 50V NPO ±10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 150pF 50V X7R	150pF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 220pF 50V X7R	220pF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 330pF 50V NPO	330pF 50V NPO ±5% P2.54	0.060	0.027	0.020	0.019	0.017
CML 330pF 50V X7R	330pF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013
CML 470pF 50V X7R	470pF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013

Multilayer Ceramic Capacitors			1-9	10-99	100-999	1000-3999	4000+
CML 680pF 50V X7R	680pF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013	
CML 820pF 50V X7R	820pF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013	
CML 1.0nF 50V X7R P2.5	1nF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013	
CML 1.0nF 50V X7R P5	1nF 50V X7R ±10% P5.08	0.044	0.020	0.015	0.014	0.013	
CML 1.5nF 50V X7R P2.5	1.5nF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013	
CML 2.2nF 50V X7R P2.5	2.2nF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013	
CML 3.3nF 50V X7R P2.5	3.3nF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013	
CML 4.7nF 50V X7R P2.5	4.7nF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013	
CML 6.8nF 50V X7R P2.5	6.8nF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013	
CML 10nF 50V X7R P2.5	10nF 50V X7R ±10% P2.54	0.044	0.020	0.015	0.014	0.013	
CML 10nF 50V Y5V P2.5	10nF 50V Y5V ±20% P2.54	0.039	0.018	0.013	0.012	0.011	
CML 15nF 50V Y5V P2.5	15nF 50V Y5V ±20% P2.54	0.039	0.018	0.013	0.012	0.011	
CML 22nF 50V Y5V P2.5	22nF 50V Y5V ±20% P2.54	0.039	0.018	0.013	0.012	0.011	
CML 22nF 50V Y5V P5	22nF 50V Y5V ±20% P5.08	0.039	0.018	0.013	0.012	0.011	
CML 27nF 50V Y5V P2.5	27nF 50V Y5V ±20% P2.54	0.039	0.018	0.013	0.012	0.011	
CML 33nF 50V Y5V P2.5	33nF 50V Y5V ±20% P2.54	0.039	0.018	0.013	0.012	0.011	
CML 47nF 50V Y5V P2.5	47nF 50V Y5V ±20% P2.54	0.039	0.018	0.013	0.012	0.011	
CML 68nF 50V Y5V P2.5	68nF 50V Y5V ±20% P2.54	0.039	0.018	0.013	0.012	0.011	
CML 100nF 50V X7R P2.5	100nF 50V X7R ±10% P2.54	0.075	0.034	0.025	0.023	0.021	
CML 100nF 50V X7R P5	100nF 50V X7R ±10% P5	0.075	0.034	0.025	0.023	0.021	
CML 100nF 50V Y5V P2.5	100nF 50V Y5V ±20% P2.54	0.035	0.016	0.012	0.011	0.010	
CML 100nF 50V Y5V P5	100nF 50V Y5V ±20% P5	0.035	0.016	0.012	0.011	0.010	
CML 100nF 100V X7R P5	100nF 100V X7R ±10% P5	0.108	0.049	0.036	0.034	0.031	
CML 150nF 50V X7R P2.5	150nF 50V X7R ±10% P2.54	0.133	0.061	0.044	0.042	0.038	
CML 150nF 50V X7R P5	150nF 50V X7R ±10% P5	0.133	0.061	0.044	0.042	0.038	
CML 220nF 50V X7R P5	220nF 50V X7R ±10% P5	0.133	0.061	0.044	0.042	0.038	
CML 220nF 50V Y5V P2.5	220nF 50V Y5V +80-20% P2.54	0.066	0.030	0.022	0.021	0.019	
CML 220nF 50V Y5V P5	220nF 50V Y5V +80-20% P5	0.066	0.030	0.022	0.021	0.019	
CML 330nF 50V P5	330nF 50V Y5V +80-20% P5	0.076	0.035	0.025	0.024	0.022	
CML 470nF 50V X7R P5	470nF 50V X7R ±10% P5	0.211	0.097	0.069	0.066	0.060	
CML 470nF 50V Y5V P5	470nF 50V Y5V +80-20% P5	0.076	0.035	0.025	0.024	0.022	
CML 680nF 50V P5	680nF 50V Y5V +80-20% P5	0.102	0.046	0.033	0.032	0.029	
CML 1.0uF 50V X7R P5	1.0uF 50V X7R ±10% P5	0.222	0.101	0.073	0.070	0.063	
CML 1.0uF 50V Y5V P5	1.0uF 50V Y5V +80-20% P5	0.076	0.035	0.025	0.024	0.022	
High Voltage Ceramic Capacitors			1-9	10-99	100-999	1000-3999	4000+
CDHV 4.7pF 500V NP0	4.7pF 500V DISC NP0±0.5pF P5	0.067	0.031	0.022	0.021	0.019	
CDHV 330pF 500V Y5P	330pF 500V DISC Y5P±10% P5	0.067	0.031	0.022	0.021	0.019	
CDHV 470pF 500V Y5P	470pF 500V DISC Y5P±10% P5	0.067	0.031	0.022	0.021	0.019	
CDHV 2.2nF 500V Y5P	2.2nF 500V DISC Y5P±10%	0.078	0.036	0.026	0.025	0.022	
CDHV 100pF 1000V Y5P	100pF 1000V DISC Y5P±10%	0.067	0.031	0.022	0.021	0.019	
CDHV 150pF 1000V Y5P	150pF 1000V DISC Y5P±10%	0.067	0.031	0.022	0.021	0.019	
CDHV 220pF 1000V Y5P	220pF 1000V DISC Y5P±10%	0.116	0.053	0.038	0.036	0.033	
CDHV 2.2nF 1000V Y5P	2.2nF 1000V DISC Y5P±10%	0.162	0.074	0.053	0.051	0.046	
CDHV 10nF 1000V Y5U	10nF 1000V DISC Y5U ±20% P7.5	0.189	0.086	0.062	0.059	0.054	
CDHV 2.2nF 2000V Y5P	2.2nF 2000V DISC Y5P±10%	0.216	0.099	0.071	0.068	0.062	
Capacitors MPT111 (TS05)			1-9	10-99	100-499	500+	2000+
CP 1nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 1nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 1.5nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 2.2nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 3.3nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 4.7nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 4.7nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 10nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 10nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 22nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 22nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 33nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 33nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 47nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 47nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.050	0.045	0.041	0.038	0.035	
CP 68nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.074	0.067	0.062	0.057	0.053	
CP 100nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.059	0.053	0.049	0.046	0.042	
CP 100nF 100V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.062	0.055	0.051	0.047	0.044	
CP 150nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.080	0.072	0.067	0.062	0.057	
CP 220nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.090	0.081	0.074	0.069	0.064	
CP 330nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.099	0.089	0.082	0.077	0.071	
CP 470nF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.118	0.106	0.098	0.091	0.085	
CP 1uF 63V MPT111/TS5	Polyester Multilayer Cap. MPT111/TS05 P5	0.270	0.243	0.223	0.208	0.193	
Capacitors MPT221 (TS02)			1-9	10-99	100-499	500+	2000+
CP 100nF 250V 10% TS02	Polyester Capacitor TS02	0.068	0.061	0.056	0.052	0.048	
CP 100nF 400V 10% TS02	Polyester Capacitor TS02	0.102	0.092	0.085	0.079	0.073	
CP 220nF 400V 10% TS02	Polyester Capacitor TS02	0.103	0.092	0.085	0.079	0.073	
CP 330nF 400V 10% TS02	Polyester Capacitor TS02	0.109	0.098	0.090	0.084	0.078	
CP 470nF 400V 10% TS02	Polyester Capacitor TS02	0.158	0.142	0.131	0.122	0.113	
CP 1uF 160V 10% MPT221	Polyester Capacitor MPT221	0.157	0.141	0.130	0.121	0.112	
CP 2.2uF 250V 10% TS02	Polyester Capacitor TS02	0.218	0.197	0.181	0.168	0.156	

Capacitors X2; Y1		1-9	10-99	100-999	1000+
CX2 100nF 275VAC 10%	Polypropylene X2cap.	0.114	0.094	0.081	0.074
CX2 150nF 275VAC 10%	Polypropylene X2cap.	0.137	0.113	0.097	0.088
CX2 220nF 275VAC 10%	Polypropylene X2cap.	0.194	0.160	0.137	0.125
CX2 330nF 275VAC 10%	Polypropylene X2cap.	0.280	0.231	0.199	0.181
CX2 330nF 275VAC 20%	Polypropylene X2cap. 18x16x20 RM15	0.402	0.332	0.285	0.259
CX2 470nF 275VAC 20%	Polypropylene X2cap.	0.301	0.248	0.213	0.194
CY1 100pF 250VAC 10%	Y1 cap. D=9	0.085	0.071	0.061	0.055
CY1 1nF 400VAC 20%	Y1 cap. D=9	0.088	0.072	0.062	0.057
CY1 2.2nF 400VAC 20%	Y1 cap. D=12	0.088	0.072	0.062	0.057
Capacitors WIMA		1-9	10-99	100-999	1000+
CW 10nF 2000Vdc 10% FKP1	Polypropylene 700Vac/1kHz 11x21x31.5 RM27.5	0.809	0.668	0.574	0.522
CW 100pF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 5x11x18 RM15	0.168	0.138	0.119	0.108
CW 150pF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 5x11x18 RM15	0.235	0.194	0.167	0.152
CW 220pF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 5x11x18 RM15	0.235	0.194	0.167	0.152
CW 330pF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 5x11x18 RM15	0.191	0.158	0.136	0.123
CW 470pF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 5x11x18 RM15	0.182	0.151	0.129	0.118
CW 680pF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 5x11x18 RM15	0.210	0.174	0.149	0.136
CW 1.0nF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 6x12.5x18 RM15	0.245	0.203	0.174	0.158
CW 1.5nF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 7x14x18 RM15	0.268	0.221	0.190	0.173
CW 2.2nF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 8x15x18 RM15	0.317	0.262	0.225	0.205
CW 3.3nF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 6x15x26.5 RM22.5	0.412	0.340	0.292	0.266
CW 4.7nF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 7x16.5x26.5 RM22.5	0.424	0.350	0.301	0.273
CW 10nF 1600Vdc 10% FKP1	Polypropylene 650Vac/1kHz 10.5x20.5x26.5 RM22.5	0.609	0.503	0.432	0.393
CW 1.0nF 1250Vdc 5% FKP1	Polypropylene 600Vac/1kHz 5x11x18 RM15	0.224	0.185	0.159	0.145
CW 2.2nF 1250Vdc 5% FKP1	Polypropylene 600Vac/1kHz 5x11x18 RM15	0.230	0.190	0.163	0.149
CW 4.7nF 1250Vdc 5% FKP1	Polypropylene 600Vac/1kHz 7x14x18 RM15	0.306	0.253	0.217	0.198
CW 6.8nF 1250Vdc 5% FKP1	Polypropylene 600Vac/1kHz 5x14x26.5 RM22.5	0.411	0.339	0.291	0.265
CW 100pF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 2.5x6.5x7.2 RM5	0.109	0.090	0.077	0.070
CW 150pF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.109	0.090	0.077	0.070
CW 220pF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.109	0.090	0.077	0.070
CW 330pF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.109	0.090	0.077	0.070
CW 470pF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.109	0.090	0.077	0.070
CW 680pF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.109	0.090	0.077	0.070
CW 1.0nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.109	0.090	0.077	0.070
CW 1.5nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 4.5x6x7.2 RM5	0.112	0.092	0.079	0.072
CW 2.2nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 5.5x7x7.2 RM5	0.117	0.096	0.083	0.075
CW 3.3nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 6.5x8x7.2 RM5	0.131	0.108	0.093	0.084
CW 4.7nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 6.5x8x7.2 RM5	0.143	0.118	0.102	0.092
CW 6.8nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 7.2x8.5x7.2 RM5	0.168	0.139	0.119	0.108
CW 10nF 630Vdc 5% FKP2	Polypropylene 250Vac/1kHz 8.5x10x7.2 RM5	0.213	0.176	0.151	0.137
CW 470pF 100Vdc 10% FKP2	Polypropylene 63Vac/1kHz 4.5x6x7.2 RM5	0.108	0.089	0.077	0.070
CW 100nF 630Vdc 10% MKP4	Polypropylene 280Vac/400Hz 7x14x18 RM15	0.256	0.212	0.182	0.165
CW 2.2nF 1600Vdc 10% MKP10	Polypropylene 650Vac/1kHz 4x9x13 RM10	0.151	0.125	0.107	0.097
CW 1.0nF 1000Vdc 10% MKP10	Polypropylene 600Vac/1kHz 4x9x13 RM10	0.149	0.123	0.106	0.096
CW 1.5nF 1000Vdc 10% MKP10	Polypropylene 600Vac/1kHz 4x9x13 RM10	0.149	0.123	0.106	0.096
CW 3.3nF 1000Vdc 10% MKP10	Polypropylene 600Vac/1kHz 4x9x13 RM10	0.150	0.124	0.106	0.097
CW 10nF 1000Vdc 10% MKP10	Polypropylene 600Vac/1kHz 5x11x13 RM10	0.185	0.153	0.131	0.119
CW 22nF 1000Vdc 10% MKP10	Polypropylene 400Vac/1kHz 6x12.5x13 RM10	0.226	0.186	0.160	0.146
CW 470nF 630Vdc 10% MKP10	Polypropylene 400Vac/1kHz 11x21x31.5 RM27.5	1.128	0.931	0.800	0.728
CW 10nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 4x9x10 RM7.5	0.150	0.124	0.106	0.097
CW 22nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 4x9.5x13 RM10	0.150	0.124	0.106	0.097
CW 47nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 5x11x18 RM15	0.196	0.162	0.139	0.126
CW 100nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 7x14x18 RM15	0.249	0.205	0.176	0.160
CW 220nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 9x16x18 RM15	0.366	0.303	0.260	0.236
CW 330nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 8.5x18.5x26.5 RM22.5	0.566	0.468	0.402	0.365
CW 470nF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 10.5x19x26.5 RM22.5	0.667	0.551	0.474	0.431
CW 1.0uF 400Vdc 10% MKP10	Polypropylene 250Vac/1kHz 13x24x31.5 RM27.5	1.147	0.947	0.814	0.740
CW 1.0nF 400V 10% FKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.108	0.089	0.077	0.070
CW 1.5nF 400V 10% FKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.108	0.089	0.077	0.070
CW 2.2nF 400V 10% FKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.108	0.089	0.077	0.070
CW 3.3nF 400V 10% FKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.108	0.089	0.077	0.070
CW 4.7nF 400V 10% FKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.108	0.089	0.077	0.070
CW 6.8nF 400V 10% FKS2	Polyester Cap. 3x7.5x7.2 RM5	0.112	0.092	0.079	0.072
CW 10nF 400V 10% FKS2	Polyester Cap. 3.5x8.5x7.2 RM5	0.126	0.104	0.089	0.081
CW 15nF 400V 10% MKS4	Polyester Cap. 4x9x10 RM7.5	0.143	0.118	0.102	0.092
CW 22nF 400V 10% MKS4	Polyester Cap. 4x9x10 RM7.5	0.143	0.118	0.102	0.092
CW 33nF 400V 10% MKS4	Polyester Cap. 4x9x10 RM7.5	0.143	0.118	0.102	0.092
CW 47nF 400V 10% MKS4	Polyester Cap. 5.7x12.5x10.3 RM7.5	0.143	0.118	0.102	0.092
CW 68nF 400V 10% MKS4	Polyester Cap. 5x11x13 RM10	0.153	0.126	0.109	0.099
CW 100nF 400V 10% MKS4	Polyester Cap. 6x12.5x13 RM10	0.161	0.133	0.114	0.104
CW 150nF 400V 10% MKS4	Polyester Cap. 6x12x13 RM10	0.193	0.159	0.137	0.124
CW 220nF 400V 10% MKS4	Polyester Cap. 6x12x13 RM10	0.207	0.171	0.147	0.134

Capacitors WIMA		1-9	10-99	100-999	1000+	
CW 330nF 400V 10% MKS4	Polyester Cap. 8x15x18 RM15	0.327	0.270	0.232	0.211	
CW 470nF 400V 10% MKS4	Polyester Cap. 8x15x18 RM15	0.344	0.284	0.244	0.222	
CW 680nF 400V 10% MKS4	Polyester Cap. 10.5x19x26.5 RM22.5	0.540	0.446	0.383	0.348	
CW 1.0uF 400V 10% MKS4	Polyester Cap. 11x21x26.5 RM22.5	0.736	0.608	0.522	0.475	
CW 1.5uF 400V 10% MKS4	Polyester 200Vac/50Hz 13x24x31.5 RM27.5	0.956	0.789	0.678	0.617	
CW 3.3uF 400V 10% MKS4	Polyester 200Vac/50Hz 17x34.5x31.5 RM27.5	1.239	1.023	0.880	0.800	
CW 10nF 250V 10% FKS2	Polyester Cap. 3x7.5x7.2 RM5	0.118	0.097	0.084	0.076	
CW 15nF 250V 10% MKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.112	0.092	0.079	0.072	
CW 22nF 250V 10% MKS2	Polyester Cap. 3x7.5x7.2 RM5	0.108	0.089	0.077	0.070	
CW 33nF 250V 10% MKS2	Polyester Cap. 3.5x8.5x7.2 RM5	0.112	0.092	0.079	0.072	
CW 47nF 250V 10% MKS2	Polyester Cap. 4.5x9.5x7.2 RM5	0.121	0.100	0.086	0.078	
CW 68nF 250V 10% MKS2	Polyester Cap. 5x10x7.2 RM5	0.129	0.107	0.092	0.083	
CW 100nF 250V 10% MKS2	Polyester Cap. 5x10x7.2 RM5	0.151	0.125	0.107	0.098	
CW 100nF 250V 10% MKS4	Polyester Cap. 4x9x10 RM7.5	0.143	0.118	0.102	0.092	
CW 150nF 250V 10% MKS4	Polyester Cap. 5x10.5x10.3 RM7.5	0.162	0.134	0.115	0.105	
CW 220nF 250V 10% MKS4	Polyester Cap. 5x10.5x10.3 RM7.5	0.204	0.168	0.145	0.132	
CW 330nF 250V 10% MKS4	Polyester Cap. 5x11x13 RM10	0.205	0.170	0.146	0.133	
CW 470nF 250V 10% MKS4	Polyester Cap. 6x12x13 RM10	0.252	0.208	0.179	0.162	
CW 680nF 250V 10% MKS4	Polyester Cap. 7x14x18 RM15	0.323	0.267	0.229	0.209	
CW 1.0uF 250V 10% MKS4	Polyester Cap. 9x16x18 RM15	0.397	0.328	0.281	0.256	
CW 1.5uF 250V 10% MKS4	Polyester Cap. 7x16.5x26.5 RM22.5	0.508	0.420	0.361	0.328	
CW 2.2uF 250V 10% MKS4	Polyester Cap. 10.5x19x26.5 RM22.5	0.836	0.691	0.594	0.540	
CW 1.0nF 100V 10% FKS2	Polyester Cap. 2.5x6.5x7.2 RM5	0.108	0.089	0.077	0.070	
CW 470nF 100V 10% MKS4	Polyester Cap. 4.5x9.5x10.3 RM7.5	0.234	0.193	0.166	0.151	
CW 1.0uF 100V 10% MKS4	Polyester Cap. 5.7x12.5x10.3 RM7.5	0.338	0.279	0.240	0.218	
CW 1.5uF 100V 10% MKS2	Polyester Cap. 8.5x14x7.2 RM5	0.379	0.313	0.269	0.245	
CW 2.2uF 100V 10% MKS4	Polyester Cap. 8x15x18 RM15	0.538	0.445	0.382	0.347	
CW 100nF 63V 10% MKS2	Polyester Cap. 2.5x6.5x7.2RM5	0.091	0.075	0.064	0.059	
CW 220nF 63V 10% MKS2	Polyester Cap. 3x7.5x7.2RM5	0.126	0.104	0.089	0.081	
CW 470nF 63V 10% MKS2	Polyester Cap. 4.5x9.5x7.2 RM5	0.170	0.141	0.121	0.110	
CW 1.0uF 63V 10% MKS2	Polyester Cap. 5x10x7.2 RM5	0.242	0.200	0.172	0.156	
CW 1.5uF 63V 10% MKS4	Polyester Cap. 5x11x13 RM10	0.382	0.316	0.271	0.247	
CW 2.2uF 63V 10% MKS2	Polyester Cap. 7.2x13x7.2 RM5	0.422	0.349	0.300	0.272	
CW 4.7uF 63V 10% MKS4	Polyester Cap. 7x14x18 RM15	0.834	0.689	0.592	0.538	
CW 10uF 63V 10% MKS4	Polyester Cap. 8.5x18.5x26.5 RM22.5	1.641	1.355	1.164	1.059	
CW 10nF 63V 10% MKS02	Polyester Cap. 2.5x7x4.6 RM2.5	0.170	0.141	0.121	0.110	
CW 22nF 63V 10% MKS02	Polyester Cap. 2.5x7x4.6 RM2.5	0.170	0.141	0.121	0.110	
CW 47nF 63V 10% MKS02	Polyester Cap. 2.5x7x4.6 RM2.5	0.174	0.143	0.123	0.112	
CW 100nF 63V 10% MKS02	Polyester Cap. 3x7.5x4.6 RM2.5	0.175	0.145	0.124	0.113	
CW 220nF 63V 10% MKS02	Polyester Cap. 3x7.5x4.6 RM2.5	0.266	0.220	0.189	0.172	
CW 470nF 63V 10% MKS02	Polyester Cap. 4.6x9x4.6 RM2.5	0.405	0.334	0.287	0.261	
CW 1.0uF 50V 10% MKS02	Polyester Cap. 5.5x10x4.6 RM2.5	0.602	0.497	0.427	0.388	
Capacitors WIMA SMD		1-9	10-99	100-999	1000+	
CW 100nF 100Vdc SMD2220	Polyester film Cap. SMD2220 10%	0.357	0.295	0.253	0.230	
CW 100nF 63Vdc 5% SMD2824	Polyester film Cap. SMD2824	0.476	0.393	0.338	0.307	
CW 330nF 63Vdc 5% SMD2824	Polyester film Cap. SMD2824	0.639	0.527	0.453	0.412	
CW 470nF 63Vdc 5% SMD2824	Polyester film Cap. SMD2824	1.097	0.906	0.778	0.708	
CW 100nF 250Vdc SMD2824	Polyester film Cap. SMD2824 10%	0.470	0.388	0.334	0.303	
CW 470nF 400Vdc SMD6560	Polyester film Cap. SMD6560 10%	0.677	0.559	0.480	0.437	
Electrolytic capacitors FUJICON		1-9	10-99	100-499	500+	2000+
CE 1.0uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0485	0.0194	0.0118	0.0103	0.0097
CE 1.0uF 50V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0450	0.0206	0.0157	0.0136	0.0129
CE 1.0uF 50V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0556	0.0222	0.0136	0.0118	0.0111
CE 1.0uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0574	0.0230	0.0140	0.0122	0.0115
CE 1.0uF 63V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0595	0.0238	0.0145	0.0126	0.0119
CE 1.0uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0574	0.0230	0.0140	0.0122	0.0115
CE 1.0uF 100V 105C Fujicon	electrolyt.cap. RA, 20%, -40~105°C, 5x11mm RM2	0.0454	0.0207	0.0158	0.0137	0.0130
CE 2.2uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0485	0.0194	0.0118	0.0103	0.0097
CE 2.2uF 50V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0556	0.0222	0.0136	0.0118	0.0111
CE 2.2uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0499	0.0200	0.0122	0.0106	0.0100
CE 2.2uF 63V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0574	0.0230	0.0140	0.0122	0.0115
CE 2.2uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0589	0.0235	0.0144	0.0125	0.0118
CE 3.3uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0485	0.0194	0.0118	0.0103	0.0097
CE 3.3uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0550	0.0220	0.0134	0.0117	0.0110
CE 3.3uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0468	0.0214	0.0163	0.0142	0.0134
CE 4.7uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0485	0.0194	0.0118	0.0103	0.0097
CE 4.7uF 50V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0450	0.0206	0.0157	0.0136	0.0129
CE 4.7uF 50V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0556	0.0222	0.0136	0.0118	0.0111
CE 4.7uF 50V 105C TR Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0499	0.0228	0.0174	0.0151	0.0143
CE 4.7uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0536	0.0214	0.0131	0.0114	0.0107
CE 4.7uF 63V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0595	0.0238	0.0145	0.0126	0.0119
CE 4.7uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0468	0.0214	0.0163	0.0142	0.0134
CE 4.7uF 400V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 8x12mm RM3.5	0.0794	0.0556	0.0516	0.0476	0.0441
CE 6.8uF 400V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 10x12mm RM5	0.1091	0.0873	0.0798	0.0737	0.0682

Electrolytic capacitors FUJICON

		1-9	10-99	100-499	500+	2000+
CE 10uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0492	0.0197	0.0120	0.0104	0.0098
CE 10uF 16V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2.5	0.0455	0.0208	0.0159	0.0138	0.0130
CE 10uF 16V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0556	0.0222	0.0136	0.0118	0.0111
CE 10uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0492	0.0197	0.0120	0.0104	0.0098
CE 10uF 25V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0455	0.0208	0.0159	0.0138	0.0130
CE 10uF 25V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0556	0.0222	0.0136	0.0118	0.0111
CE 10uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0500	0.0200	0.0122	0.0106	0.0100
CE 10uF 35V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0556	0.0222	0.0136	0.0118	0.0111
CE 10uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0518	0.0207	0.0126	0.0110	0.0104
CE 10uF 50V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0556	0.0222	0.0136	0.0118	0.0111
CE 10uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0574	0.0230	0.0140	0.0122	0.0115
CE 10uF 63V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0465	0.0213	0.0162	0.0141	0.0133
CE 10uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0589	0.0269	0.0205	0.0178	0.0168
CE 10uF 100V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 6.3x11mm RM2.5	0.0627	0.0287	0.0219	0.0190	0.0179
CE 10uF 400V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x20mm RM5	0.1360	0.1088	0.0994	0.0918	0.0850
CE 10uF 400V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 10x20mm RM5	0.1352	0.1217	0.1120	0.1043	0.0966
CE 22uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0492	0.0197	0.0120	0.0104	0.0098
CE 22uF 16V 105C Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0455	0.0208	0.0159	0.0138	0.0130
CE 22uF 16V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0556	0.0222	0.0136	0.0118	0.0111
CE 22uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0518	0.0207	0.0126	0.0110	0.0104
CE 22uF 25V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0571	0.0228	0.0139	0.0121	0.0114
CE 22uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0541	0.0216	0.0132	0.0115	0.0108
CE 22uF 35V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0571	0.0228	0.0139	0.0121	0.0114
CE 22uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0588	0.0235	0.0143	0.0125	0.0118
CE 22uF 50V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0610	0.0244	0.0149	0.0129	0.0122
CE 22uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0566	0.0259	0.0197	0.0171	0.0162
CE 22uF 63V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 6.3x11mm RM2.5	0.0622	0.0284	0.0217	0.0188	0.0178
CE 22uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x11mm RM3.5	0.0577	0.0381	0.0338	0.0312	0.0289
CE 22uF 100V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 8x11mm RM3.5	0.0613	0.0405	0.0359	0.0331	0.0307
CE 22uF 250V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x20mm RM5	0.1236	0.1112	0.1024	0.0953	0.0883
CE 22uF 250V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 10x20mm RM5	0.1236	0.1112	0.1024	0.0953	0.0883
CE 22uF 350V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x21mm RM5	0.1929	0.1736	0.1598	0.1488	0.1378
CE 22uF 350V 105C Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 13x21mm RM5	0.2016	0.1814	0.1670	0.1555	0.1440
CE 22uF 400V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 13x25mm RM5	0.2485	0.2237	0.2059	0.1917	0.1775
CE 33uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0492	0.0197	0.0120	0.0104	0.0098
CE 33uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0492	0.0197	0.0120	0.0104	0.0098
CE 33uF 16V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0556	0.0222	0.0136	0.0118	0.0111
CE 33uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0533	0.0213	0.0130	0.0113	0.0107
CE 33uF 25V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0588	0.0235	0.0143	0.0125	0.0118
CE 33uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0573	0.0229	0.0140	0.0121	0.0115
CE 33uF 35V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0607	0.0243	0.0148	0.0129	0.0121
CE 33uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0545	0.0249	0.0190	0.0165	0.0156
CE 33uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0614	0.0297	0.0236	0.0217	0.0205
CE 33uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0735	0.0485	0.0430	0.0397	0.0368
CE 47uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0492	0.0197	0.0120	0.0104	0.0098
CE 47uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0492	0.0197	0.0120	0.0104	0.0098
CE 47uF 16V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0455	0.0208	0.0159	0.0138	0.0130
CE 47uF 16V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0556	0.0222	0.0136	0.0118	0.0111
CE 47uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0525	0.0210	0.0128	0.0111	0.0105
CE 47uF 25V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0593	0.0271	0.0207	0.0180	0.0169
CE 47uF 25V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0603	0.0241	0.0147	0.0128	0.0121
CE 47uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0534	0.0244	0.0186	0.0162	0.0153
CE 47uF 35V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0653	0.0298	0.0228	0.0198	0.0186
CE 47uF 35V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0598	0.0273	0.0208	0.0181	0.0171
CE 47uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0634	0.0290	0.0221	0.0192	0.0181
CE 47uF 50V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 6.3x11mm RM2.5	0.0694	0.0335	0.0266	0.0245	0.0231
CE 47uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x11mm RM3.5	0.0818	0.0395	0.0314	0.0289	0.0273
CE 47uF 63V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 8x11mm RM3.5	0.0584	0.0386	0.0342	0.0316	0.0292
CE 47uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x12mm RM5	0.0934	0.0747	0.0683	0.0630	0.0584
CE 47uF 100V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 10x12mm RM5	0.1076	0.0861	0.0787	0.0726	0.0673
CE 47uF 400V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 16x25mm RM7.5	0.4589	0.4079	0.3637	0.3399	
CE 100uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0503	0.0201	0.0123	0.0107	0.0101
CE 100uF 10V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2.5	0.0462	0.0211	0.0161	0.0140	0.0132
CE 100uF 10V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0541	0.0216	0.0132	0.0115	0.0108
CE 100uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0518	0.0207	0.0126	0.0110	0.0104
CE 100uF 16V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 5x11mm RM2	0.0443	0.0203	0.0154	0.0134	0.0127
CE 100uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0467	0.0214	0.0163	0.0142	0.0134
CE 100uF 25V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0582	0.0266	0.0203	0.0176	0.0166
CE 100uF 25V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 6.3x11mm RM2.5	0.0608	0.0278	0.0212	0.0184	0.0174
CE 100uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0739	0.0357	0.0283	0.0261	0.0246
CE 100uF 35V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0561	0.0370	0.0328	0.0303	0.0280
CE 100uF 35V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 6.3x11mm RM2.5	0.0539	0.0356	0.0315	0.0291	0.0270
CE 100uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0854	0.0413	0.0327	0.0302	0.0285
CE 100uF 50V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0637	0.0420	0.0372	0.0344	0.0318
CE 100uF 50V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 8x12mm RM3.5	0.0594	0.0392	0.0347	0.0321	0.0297
CE 100uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 8x16mm RM3.5	0.0829	0.0547	0.0485	0.0447	0.0414
CE 100uF 63V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 8x16mm RM3.5	0.0849	0.0594	0.0552	0.0509	0.0472
CE 100uF 100V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 10x20mm RM5	0.1273	0.1019	0.0931	0.0859	0.0796
CE 100uF 100V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 10x20mm RM5	0.1361	0.1089	0.0996	0.0919	0.0851
CE 100uF 400V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 18x35mm RM7.5	0.8724	0.7755	0.6915	0.6463	
CE 220uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 5x11mm RM2	0.0438	0.0200	0.0153	0.0133	0.0125
CE 220uF 10V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0633	0.0306	0.0243	0.0224	0.0211

Electrolytic capacitors FUJICON

		1-9	10-99	100-499	500+	2000+
CE 220uF 10V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 6.3x11mm RM2.5	0.0598	0.0273	0.0208	0.0181	0.0171
CE 220uF 16V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0556	0.0254	0.0194	0.0168	0.0159
CE 220uF 16V Fujicon TR	electrolyt. cap. RA, 20%, -40~85°C, 8x11mm RM3.5	0.0552	0.0364	0.0323	0.0298	0.0276
CE 220uF 16V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 6.3x11mm RM2.5	0.0582	0.0266	0.0203	0.0176	0.0166
CE 220uF 16V 105C TR Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 6.3x11mm RM2.5	0.0634	0.0290	0.0221	0.0192	0.0181
CE 220uF 25V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 8x11mm RM3.5	0.0514	0.0339	0.0301	0.0278	0.0257
CE 220uF 25V Fujicon TR	electrolyt. cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.1142	0.0914	0.0835	0.0771	0.0714
CE 220uF 25V Fujicon TR2	electrolyt. cap. RA, 20%, -40~85°C, 8x11mm RM3.5	0.0730	0.0482	0.0427	0.0394	0.0365
CE 220uF 25V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 8x12mm RM3.5	0.0529	0.0349	0.0310	0.0286	0.0265
CE 220uF 35V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0661	0.0436	0.0386	0.0357	0.0330
CE 220uF 35V Fujicon TR	electrolyt. cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0853	0.0563	0.0499	0.0461	0.0427
CE 220uF 35V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 8x12mm RM3.5	0.0724	0.0478	0.0424	0.0391	0.0362
CE 220uF 50V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 10x12mm RM5	0.0856	0.0599	0.0556	0.0514	0.0476
CE 220uF 50V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 10x12mm RM5	0.0923	0.0739	0.0675	0.0623	0.0577
CE 220uF 63V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 10x17mm RM5	0.1118	0.0895	0.0818	0.0755	0.0699
CE 220uF 63V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 10x17mm RM5	0.1425	0.1140	0.1042	0.0962	0.0891
CE 220uF 100V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 13x25mm RM5	0.2185	0.1966	0.1810	0.1685	0.1561
CE 220uF 100V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 13x25mm RM5	0.2336	0.2103	0.1936	0.1802	0.1669
CE 220uF 200V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 18x32mm RM7.5	0.5915	0.5324	0.4901	0.4563	0.4225
CE 330uF 10V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0645	0.0295	0.0225	0.0195	0.0184
CE 330uF 10V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 8x11mm RM3.5	0.0514	0.0339	0.0301	0.0278	0.0257
CE 330uF 16V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 8x11mm RM3.5	0.0493	0.0325	0.0288	0.0266	0.0246
CE 330uF 16V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 8x11mm RM3.5	0.0525	0.0346	0.0307	0.0283	0.0262
CE 330uF 25V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0584	0.0386	0.0342	0.0315	0.0292
CE 330uF 25V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 8x16mm RM3.5	0.0765	0.0505	0.0448	0.0413	0.0383
CE 330uF 35V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 10x17mm RM5	0.0977	0.0684	0.0635	0.0586	0.0543
CE 330uF 50V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 10x17mm RM5	0.1208	0.0966	0.0883	0.0815	0.0755
CE 330uF 50V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 10x20mm RM5	0.1425	0.1140	0.1042	0.0962	0.0891
CE 330uF 63V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 13x21mm RM5	0.1678	0.1511	0.1391	0.1295	0.1199
CE 330uF 63V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 13x21mm RM5	0.1896	0.1706	0.1571	0.1462	0.1354
CE 330uF 100V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 16x26mm RM7.5	0.3769	0.3393	0.3123	0.2908	0.2692
CE 330uF 100V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 16x25mm RM7.5	0.3674	0.3307	0.3044	0.2834	0.2624
CE 470uF 10V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.0661	0.0302	0.0230	0.0200	0.0189
CE 470uF 10V Fujicon TR	electrolyt. cap. RA, 20%, -40~85°C, 6.3x11mm RM2.5	0.1079	0.0755	0.0701	0.0647	0.0599
CE 470uF 10V Fujicon TR12	electrolyt. cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0593	0.0391	0.0347	0.0320	0.0296
CE 470uF 10V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 8x11mm RM3.5	0.0583	0.0385	0.0341	0.0315	0.0291
CE 470uF 16V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0523	0.0345	0.0306	0.0283	0.0262
CE 470uF 16V Fujicon TR	electrolyt. cap. RA, 20%, -40~85°C, 8x11mm RM3.5	0.0740	0.0488	0.0433	0.0399	0.0370
CE 470uF 16V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 8x12mm RM3.5	0.0542	0.0358	0.0317	0.0293	0.0271
CE 470uF 25V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 8x16mm RM3.5	0.0762	0.0503	0.0446	0.0412	0.0381
CE 470uF 25V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 8x16mm RM3.5	0.0837	0.0553	0.0490	0.0452	0.0419
CE 470uF 35V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 10x17mm RM5	0.0937	0.0750	0.0685	0.0633	0.0586
CE 470uF 35V Fujicon TR	electrolyt. cap. RA, 20%, -40~85°C, 10x12mm RM5	0.0995	0.0796	0.0728	0.0672	0.0622
CE 470uF 35V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 10x20mm RM5	0.1196	0.0957	0.0875	0.0807	0.0748
CE 470uF 50V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 13x21mm RM5	0.1497	0.1347	0.1240	0.1154	0.1069
CE 470uF 50V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 13x21mm RM5	0.1703	0.1545	0.1314	0.1216	
CE 470uF 63V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 13x25mm RM5	0.1953	0.1772	0.1507	0.1395	
CE 470uF 63V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 13x25mm RM5	0.2127	0.1929	0.1641	0.1519	
CE 470uF 100V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 16x26mm RM7.5	0.4294	0.3817	0.3403	0.3181	
CE 470uF 100V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 16x26mm RM7.5	0.4535	0.4031	0.3594	0.3359	
CE 470uF 200V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 22x40mm RM10	1.0464	0.9301	0.8293	0.7751	
CE 1000uF 6.3V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0590	0.0390	0.0345	0.0319	0.0295
CE 1000uF 6.3V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 8x12mm RM3.5	0.0689	0.0454	0.0403	0.0372	0.0344
CE 1000uF 10V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0655	0.0432	0.0383	0.0354	0.0327
CE 1000uF 10V Fujicon TR	electrolyt. cap. RA, 20%, -40~85°C, 8x12mm RM3.5	0.0807	0.0533	0.0472	0.0436	0.0403
CE 1000uF 10V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 8x16mm RM3.5	0.0801	0.0529	0.0469	0.0433	0.0401
CE 1000uF 16V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 8x16mm RM3.5	0.0827	0.0579	0.0537	0.0496	0.0459
CE 1000uF 16V Fujicon TR	electrolyt. cap. RA, 20%, -40~85°C, 8x16mm RM3.5	0.0887	0.0621	0.0576	0.0532	0.0493
CE 1000uF 16V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 10x17mm RM5	0.0936	0.0655	0.0608	0.0561	0.0520
CE 1000uF 25V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 10x17mm RM5	0.1031	0.0825	0.0754	0.0696	0.0645
CE 1000uF 25V Fujicon TR	electrolyt. cap. RA, 20%, -40~85°C, 10x17mm RM5	0.1134	0.0907	0.0829	0.0765	0.0709
CE 1000uF 25V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 10x20mm RM5	0.1254	0.1003	0.0917	0.0846	0.0783
CE 1000uF 35V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 13x21mm RM5	0.1606	0.1445	0.1330	0.1239	0.1147
CE 1000uF 35V Fujicon TR	electrolyt. cap. RA, 20%, -40~85°C, 13x21mm RM5	0.2292	0.1604	0.1490	0.1375	0.1273
CE 1000uF 35V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 13x21mm RM5	0.1981	0.1584	0.1448	0.1337	0.1238
CE 1000uF 50V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 13x25mm RM5	0.2298	0.2085	0.1773	0.1641	
CE 1000uF 50V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 13x25mm RM5	0.2566	0.2327	0.1979	0.1833	
CE 1000uF 63V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 16x26mm RM7.5	0.3265	0.2962	0.2519	0.2332	
CE 1000uF 63V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 16x31mm RM7.5	0.4271	0.3874	0.3295	0.3051	
CE 1000uF 100V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 18x40mm RM7.5	0.8670	0.7706	0.6872	0.6422	
CE 1000uF 100V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 18x40mm RM7.5	0.9035	0.8031	0.7161	0.6692	
CE 2200uF 10V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 10x16mm RM5	0.1069	0.0855	0.0782	0.0722	0.0668
CE 2200uF 10V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 10x20mm RM5	0.1066	0.0853	0.0779	0.0720	0.0666
CE 2200uF 16V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 13x21mm RM5	0.1537	0.1383	0.1273	0.1186	0.1098
CE 2200uF 16V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 13x21mm RM5	0.1551	0.1396	0.1285	0.1196	0.1108
CE 2200uF 25V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 13x25mm RM5	0.1835	0.1665	0.1416	0.1311	
CE 2200uF 25V Fujicon TR	electrolyt. cap. RA, 20%, -40~85°C, 13x25mm RM5	0.1943	0.1762	0.1499	0.1388	
CE 2200uF 25V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 13x25mm RM5	0.1982	0.1798	0.1529	0.1416	
CE 2200uF 35V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 16x26mm RM7.5	0.2868	0.2601	0.2212	0.2048	
CE 2200uF 35V Fujicon TR	electrolyt. cap. RA, 20%, -40~85°C, 16x26mm RM7.5	0.2994	0.2716	0.2310	0.2139	
CE 2200uF 35V 105C Fujicon	electrolyt. cap. RK, 20%, -40~105°C, 16x26mm RM7.5	0.3274	0.2970	0.2525	0.2338	
CE 2200uF 50V Fujicon	electrolyt. cap. RA, 20%, -40~85°C, 16x35mm RM7.5	0.4485	0.4069	0.3460	0.3204	

Electrolytic capacitors FUJICON

		1-9	10-99	100-499	500+	2000+
CE 2200uF 50V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 16x31mm RM7.5	0.5132	0.4655	0.3959	0.3665	
CE 2200uF 50V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 16x31mm RM7.5	0.4797	0.4351	0.3700	0.3426	
CE 2200uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 18x36mm RM7.5	0.7099	0.6310	0.5627	0.5259	
CE 2200uF 63V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 18x36mm RM7.5	0.9035	0.8031	0.7161	0.6692	
CE 3300uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x21mm RM5	0.1388	0.1249	0.1150	0.1071	0.0991
CE 3300uF 10V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 13x21mm RM5	0.1607	0.1446	0.1331	0.1239	0.1148
CE 3300uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x25mm RM5	0.1785	0.1619	0.1377	0.1275	
CE 3300uF 16V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 13x25mm RM5	0.2024	0.1836	0.1562	0.1446	
CE 3300uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x26mm RM7.5	0.2945	0.2762	0.2272	0.2104	
CE 3300uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x35mm RM7.5	0.4350	0.3946	0.3356	0.3107	
CE 3300uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 18x36mm RM7.5	0.6235	0.5656	0.4810	0.4453	
CE 3300uF 50V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 18x36mm RM7.5	0.6727	0.6102	0.5189	0.4805	
CE 3300uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 22x40mm RM7.5	1.2563	1.1167	0.9957	0.9306	
CE 4700uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 13x25mm RM5	0.2048	0.1858	0.1580	0.1463	
CE 4700uF 10V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 13x25mm RM5	0.2080	0.1887	0.1604	0.1486	
CE 4700uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x26mm RM7.5	0.2917	0.2646	0.2250	0.2084	
CE 4700uF 16V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 16x26mm RM7.5	0.3499	0.3174	0.2699	0.2499	
CE 4700uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 16x31mm RM7.5	0.3815	0.3461	0.2943	0.2725	
CE 4700uF 25V 105C Fujicon	electrolyt.cap. RK, 20%, -40~105°C, 16x31mm RM7.5	0.4051	0.3675	0.3125	0.2894	
CE 4700uF 35V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 18x36mm RM7.5	0.5927	0.5377	0.4573	0.4234	
CE 4700uF 35V Fujicon TR	electrolyt.cap. RA, 20%, -40~85°C, 18x36mm RM7.5	0.6750	0.6124	0.5207	0.4822	
CE 4700uF 50V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 22x40mm RM10	0.8495	0.7551	0.6733	0.6293	
CE 4700uF 63V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 25x40mm RM10	1.4100	1.2533	1.1175	1.0444	
CE 10000uF 10V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 18x36mm RM7.5	0.3965	0.3597	0.3059	0.2832	
CE 10000uF 16V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 18x36mm RM7.5	0.5712	0.5182	0.4407	0.4080	
CE 10000uF 25V Fujicon	electrolyt.cap. RA, 20%, -40~85°C, 22x35mm RM10	0.7848	0.6976	0.6221	0.5814	
CE 47uF 100V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 5x11mm RM2	0.0824	0.0330	0.0201	0.0175	0.0165
CE 10uF 50V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 5x11mm RM2	0.0757	0.0303	0.0185	0.0160	0.0151
CE 10uF 400V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 13x21mm RM5	0.2159	0.1943	0.1789	0.1665	0.1542
CE 22uF 400V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 13x25mm RM5	0.3018	0.2716	0.2501	0.2328	0.2156
CE 100uF 25V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 6.3x11mm RM2.5, 0.330Hm	0.1064	0.0426	0.0260	0.0226	0.0213
CE 100uF 35V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 8x12mm RM3.5, 0.260Hm	0.1056	0.0483	0.0368	0.0320	0.0302
CE 100uF 50V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 8x16mm RM3.5, 0.220Hm	0.1221	0.0590	0.0468	0.0431	0.0407
CE 100uF 63V 105C LOW ES	el.cap. TM, 20%, -40~105°C, 10x17mm RM5, 0.270Hm	0.1127	0.0789	0.0733	0.0676	0.0626
CE 220uF 25V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 8x12mm RM3.5, 0.250Hm	0.1179	0.0539	0.0411	0.0357	0.0337
CE 220uF 35V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 8x16mm RM3.5, 0.200Hm	0.1002	0.0661	0.0586	0.0541	0.0501
CE 220uF 50V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 10x17mm RM5, 0.160Hm	0.1209	0.0847	0.0786	0.0726	0.0672
CE 330uF 25V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 8x16mm RM3.5, 0.100Hm	0.1266	0.0612	0.0485	0.0447	0.0422
CE 330uF 35V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 10x17mm RM5	0.1079	0.0755	0.0701	0.0647	0.0599
CE 330uF 63V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 13x21mm RM5, 0.060Hm	0.1930	0.1737	0.1599	0.1489	0.1379
CE 470uF 16V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 10x12mm RM5, 0.100Hm	0.0964	0.0675	0.0627	0.0579	0.0536
CE 470uF 25V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 10x16mm RM5	0.1228	0.0860	0.0798	0.0737	0.0682
CE 470uF 35V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 8x20mm RM5	0.1413	0.1130	0.1033	0.0953	0.0883
CE 1000uF 6.3V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 10x12mm RM3.5, 0.100Hm	0.0944	0.0623	0.0553	0.0510	0.0472
CE 1000uF 16V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 10x20mm RM5, 0.0550Hm	0.1429	0.1000	0.0929	0.0857	0.0794
CE 1200uF 25V 105C LOW ES	el.cap. TM, 20%, -40~105°C, 13x21mm RM5	0.1635	0.1308	0.1196	0.1104	0.1022
CE 2200uF 6.3V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 10x20mm RM5, 0.070Hm	0.1371	0.1096	0.1002	0.0925	0.0857
CE 2200uF 16V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 13x25mm RM5, 0.040Hm	0.2019	0.1817	0.1673	0.1558	0.1442
CE 3300uF 6.3V 105C LOW ESR	el.cap. TM, 20%, -40~105°C, 13x21mm RM5, 0.0400Hm	0.1900	0.1710	0.1574	0.1466	0.1357
		1-9	10-99	100-499	500+	
CE 47uF 400V 105C SNAP-IN	el.cap. SK, -40~105°C, 22x25mm RM10	0.6831	0.6072	0.5414	0.5060	
CE 47uF 450V 105C SNAP-IN	el.cap. SK, -40~105°C, 22x25mm RM10	0.6831	0.6072	0.5414	0.5060	
CE 100uF 400V 105C SNAP-IN	el.cap. SK, -40~105°C, 22x30mm RM10	1.0442	0.9282	0.8276	0.7735	
CE 120uF 400V 105C SNAP-IN	el.cap. SK, -40~105°C, 30x25mm RM10	1.2730	1.1315	1.0089	0.9429	
CE 220uF 200V 105C SNAP-IN	el.cap. SK, -40~105°C, 22x25mm RM10	0.7708	0.6851	0.6109	0.5709	
CE 220uF 400V 105C SNAP-IN	el.cap. SK, -40~105°C, 25x45mm RM10	1.9234	1.7097	1.5244	1.4247	
CE 220uF 400V 105C 30x30 SNAP-IN	el.cap. SK, -40~105°C, 30x30mm RM10	1.9234	1.7097	1.5244	1.4247	
CE 470uF 400V 105C SNAP-IN	el.cap. SK, -40~105°C, 35x46mm RM10	3.7259	3.3119	2.9531	2.7599	
		1-9	10-99	100-499	500+	2000+
CE 1.0uF 63V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 4x7mm RM1.5	0.0486	0.0194	0.0119	0.0103	0.0097
CE 2.2uF 63V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 4x7mm RM1.5	0.0486	0.0194	0.0119	0.0103	0.0097
CE 4.7uF 63V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 4x7mm RM1.5	0.0486	0.0194	0.0119	0.0103	0.0097
CE 10uF 35V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 4x7mm RM1.5	0.0486	0.0194	0.0119	0.0103	0.0097
CE 10uF 63V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 6.3x7mm RM2.5	0.0609	0.0278	0.0212	0.0184	0.0174
CE 22uF 35V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 5x7mm RM2	0.0478	0.0218	0.0167	0.0145	0.0137
CE 22uF 63V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 6.3x7mm RM2.5	0.0635	0.0290	0.0221	0.0192	0.0181
CE 47uF 10V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 4x7mm RM1.5	0.0497	0.0199	0.0121	0.0105	0.0099
CE 47uF 16V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 4x7mm RM1.5	0.0497	0.0199	0.0121	0.0105	0.0099
CE 47uF 50V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 8x9mm RM3.5	0.1060	0.0512	0.0406	0.0374	0.0353
CE 100uF 16V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 6.3x7mm RM2.5	0.0609	0.0278	0.0212	0.0184	0.0174
CE 100uF 25V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 8x7mm RM3.5	0.1005	0.0486	0.0385	0.0355	0.0335
CE 100uF 35V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 8x9mm RM3.5	0.1068	0.0516	0.0410	0.0378	0.0356
CE 220uF 6.3V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 6.3x7mm RM2.5	0.0609	0.0278	0.0212	0.0184	0.0174
CE 220uF 10V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 6.3x7mm RM2.5	0.0609	0.0278	0.0212	0.0184	0.0174
CE 220uF 16V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 8x7mm RM3.5	0.1091	0.0499	0.0380	0.0330	0.0312
CE 220uF 25V 105C mini Fujicon	electrolyt.cap. RM, 20%, -40~105°C, 8x9mm RM3.5	0.1173	0.0536	0.0409	0.0355	0.0335

Electrolytic capacitors SMD FUJICON

		1-9	10-99	100-499	500+	2000+
CE 1.0uF 50V SMD Fujicon	el.cap. CS 20%, -40~85°C; D4xL5.4mm, base 4.3mm	0.0680	0.0310	0.0240	0.0210	0.0200
CE 2.2uF 50V SMD Fujicon	el.cap. CS 20%, -40~85°C; D4xL5.4mm, base 4.3mm	0.0680	0.0310	0.0240	0.0210	0.0200
CE 3.3uF 50V SMD Fujicon	el.cap. CS 20%, -40~85°C; D4xL5.4mm, base 4.3mm	0.0770	0.0370	0.0300	0.0270	0.0260
CE 3.3uF 50V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D4xL5.4mm, base 4.3mm	0.0810	0.0390	0.0310	0.0290	0.0270
CE 4.7uF 35V SMD Fujicon	el.cap. CS 20%, -40~85°C; D4xL5.4mm, base 4.3mm	0.0680	0.0310	0.0240	0.0210	0.0200
CE 4.7uF 50V SMD Fujicon	el.cap. CS 20%, -40~85°C; D4xL5.4mm, base 4.3mm	0.0840	0.0550	0.0490	0.0450	0.0420
CE 4.7uF 50V SMD 105C Fujicon	el.cap. CS 20%, -40~105°C; D6.3xL5.4mm, base 5.3mm	0.0620	0.0410	0.0360	0.0330	0.0310
CE 10uF 16V SMD Fujicon	el.cap. CS 20%, -40~85°C; D4xL5.4mm, base 4.3mm	0.0680	0.0310	0.0240	0.0210	0.0200
CE 10uF 16V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D6.3xL5.4mm, base 4.3mm	0.0690	0.0330	0.0260	0.0240	0.0230
CE 10uF 35V SMD Fujicon	el.cap. CS 20%, -40~85°C; D5xL5.4mm, base 5.3mm	0.0810	0.0390	0.0310	0.0280	0.0270
CE 10uF 35V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D5xL5.4mm, base 5.3mm	0.0640	0.0420	0.0370	0.0340	0.0320
CE 10uF 50V SMD Fujicon	el.cap. CS 20%, -40~85°C; D6.3xL5.4mm, base 6.6mm	0.0960	0.0640	0.0560	0.0520	0.0480
CE 10uF 50V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D6.3xL5.4mm, base 6.6mm	0.0850	0.0560	0.0500	0.0460	0.0430
CE 10uF 100V SMD Fujicon	el.cap. CS 20%, -40~85°C; D6.3xL7.7mm, base 6.6mm	0.1360	0.0950	0.0880	0.0820	0.0760
CE 10uF 100V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D6.3xL5.4mm, base 6.6mm	0.1360	0.0950	0.0880	0.0820	0.0760
CE 22uF 16V SMD Fujicon	el.cap. CS 20%, -40~85°C; D5xL5.4mm, base 5.3mm	0.0810	0.0390	0.0310	0.0280	0.0270
CE 22uF 35V SMD Fujicon	el.cap. CS 20%, -40~85°C; D6.3xL5.4mm, base 6.6mm	0.0790	0.0520	0.0460	0.0430	0.0390
CE 47uF 25V SMD Fujicon	el.cap. CS 20%, -40~85°C; D6.3xL5.4mm, base 6.6mm	0.0720	0.0480	0.0420	0.0390	0.0360
CE 47uF 25V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D6.3xL5.4mm, base 6.6mm	0.0810	0.0530	0.0470	0.0440	0.0410
CE 47uF 35V SMD Fujicon	el.cap. CS 20%, -40~85°C; D6.3xL5.4mm, base 6.6mm	0.0740	0.0490	0.0430	0.0400	0.0370
CE 47uF 50V SMD Fujicon	el.cap. CS 20%, -40~85°C; D6.3xL7.7mm, base 6.6mm	0.1040	0.0690	0.0610	0.0560	0.0520
CE 47uF 50V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D6.3xL7.7mm, base 6.6mm	0.1890	0.1320	0.1230	0.1130	0.1050
CE 100uF 16V SMD Fujicon	el.cap. CS 20%, -40~85°C; D6.3xL5.4mm, base 6.6mm	0.0720	0.0480	0.0420	0.0390	0.0360
CE 100uF 16V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D6.3xL5.4mm, base 6.6mm	0.0840	0.0550	0.0490	0.0450	0.0420
CE 100uF 25V SMD Fujicon	el.cap. CS 20%, -40~85°C; D6.3xL7.7mm, base 6.6mm	0.0990	0.0650	0.0580	0.0530	0.0490
CE 100uF 35V SMD Fujicon	el.cap. CS 20%, -40~85°C; D6.3xL7.7mm, base 6.6mm	0.0990	0.0650	0.0580	0.0530	0.0490
CE 220uF 10V SMD Fujicon	el.cap. CS 20%, -40~85°C; D6.3xL7.7mm, base 6.6mm	0.0990	0.0650	0.0580	0.0530	0.0490
CE 220uF 16V SMD Fujicon	el.cap. CS 20%, -40~85°C; D6.3xL7.7mm, base 6.6mm	0.0990	0.0650	0.0580	0.0530	0.0490
CE 220uF 16V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D6.3xL7.7mm, base 6.6mm	0.1370	0.0900	0.0800	0.0740	0.0680
CE 220uF 25V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D8xL10.5mm, base 8.3mm	0.2020	0.1610	0.1470	0.1360	0.1260
CE 220uF 35V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D8xL10.5mm, base 8.3mm	0.2020	0.1610	0.1470	0.1360	0.1260
CE 330uF 10V SMD Fujicon	el.cap. CS 20%, -40~85°C; D8xL10.5mm, base 8.3mm	0.1740	0.1390	0.1270	0.1170	0.1090
CE 330uF 16V SMD Fujicon	el.cap. CS 20%, -40~85°C; D8xL10.5mm, base 8.3mm	0.1740	0.1390	0.1270	0.1170	0.1090
CE 330uF 25V SMD Fujicon	el.cap. CS 20%, -40~85°C; D8xL10.5mm, base 8.3mm	0.1960	0.1370	0.1270	0.1170	0.1090
CE 330uF 25V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D10xL10.5mm, base 10.3mm	0.2300	0.2070	0.1910	0.1780	0.1650
CE 470uF 10V SMD Fujicon	el.cap. CS 20%, -40~85°C; D8xL10.5mm, base 8.3mm	0.1960	0.1370	0.1270	0.1170	0.1090
CE 470uF 10V SMD 105C Fujicon	el.cap. CS 20%, -40~105°C; D8xL10.5mm, base 8.3mm	0.2060	0.1650	0.1510	0.1390	0.1290
CE 470uF 16V SMD Fujicon	el.cap. CS 20%, -40~85°C; D10xL10.5mm, base 10.3mm	0.2400	0.2160	0.1990	0.1850	0.1710
CE 470uF 16V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D10xL10.5mm, base 10.3mm	0.2710	0.2440	0.2250	0.2090	0.1940
CE 470uF 25V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D10xL10.5mm, base 10.3mm	0.2770	0.2490	0.2300	0.2140	0.1980
CE 1000uF 16V SMD Fujicon	el.cap. CS 20%, -40~85°C; D10xL10.5mm, base 10.3mm	0.1900	0.1710	0.1570	0.1460	0.1360
CE 1000uF 16V SMD 105C Fujicon	el.cap. CK 20%, -40~105°C; D10xL10.5mm, base 10.3mm	0.2340	0.2110	0.1940	0.1810	0.1670
CE 47uF 35V SMD LZ Fujicon	el.cap. LZ 20%, -40~105°C; D6.3xL5.4mm, base 6.6mm	0.1270	0.0840	0.0740	0.0690	0.0630
CE 47uF 35V SMD KZ Fujicon	el.cap. KZ 20%, -40~105°C; D6.3xL5.4mm, base 6.6mm	0.1410	0.0990	0.0920	0.0850	0.0780
CE 47uF 35V SMD FZ Fujicon	el.cap. FZ 20%, -40~105°C; D6.3xL5.8mm, base 6.6mm	0.1540	0.1080	0.1000	0.0930	0.0860
CE 100uF 16V SMD KZ Fujicon	el.cap. KZ 20%, -40~105°C; D6.3xL5.4mm, base 6.6mm	0.1410	0.0990	0.0920	0.0850	0.0780
CE 330uF 6.3V SMD KZ Fujicon	el.cap. KZ 20%, -40~105°C; D6.3xL7.7mm, base 6.6mm	0.1740	0.1210	0.1130	0.1040	0.0960
CMB 0.1F 5.5V	Memory Back-up cap. 0.1 Farad 5.5V	1.314	1.125	1.052		
CMB 1F 5.5V	Memory Back-up cap. 1 Farad 5.5V	2.733	2.339	2.186		

Tantalum Capacitors

		1-9	10-99	100-499	500-1999	2000+
TANT 1.0uF 35V		0.095	0.086	0.079	0.073	0.068
TANT 2.2uF 16V		0.087	0.078	0.072	0.067	0.062
TANT 4.7uF 16V		0.103	0.093	0.085	0.079	0.074
TANT 4.7uF 35V		0.182	0.163	0.150	0.140	0.130
TANT 10uF 16V		0.114	0.103	0.094	0.088	0.081
TANT 22uF 16V		0.223	0.208	0.193	0.180	0.168
TANT 33uF 10V		0.223	0.208	0.193	0.180	0.168
TANT 47uF 16V		0.489	0.456	0.423	0.393	0.368

Tantalum Capacitors SMD

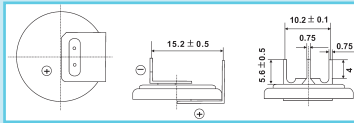
		1-9	10-99	100-499	500-1999	2000+
TANT A SMD 1uF 20V	1.0uF 20V A (1206) 0.5uA ESR 10 Ohm	0.1250	0.0798	0.0574	0.0549	0.0499
TANT A SMD 1uF 25V	1.0uF 25V A	0.1250	0.0798	0.0574	0.0549	0.0499
TANT B SMD 1uF 35V	1.0uF 35V B	0.1560	0.0998	0.0717	0.0686	0.0624
TANT A SMD 2.2uF 16V	2.2uF 16V A	0.1200	0.0765	0.0550	0.0526	0.0478
TANT B SMD 2.2uF 35V	2.2uF 35V B	0.1770	0.1131	0.0813	0.0778	0.0707
TANT A SMD 3.3uF 16V	3.3uF 16V A	0.1250	0.0798	0.0574	0.0549	0.0499
TANT A SMD 4.7uF 10V	4.7uF 10V A	0.1090	0.0699	0.0502	0.0480	0.0437
TANT A SMD 4.7uF 16V	4.7uF 16V A	0.1250	0.0798	0.0574	0.0549	0.0499
TANT B SMD 4.7uF 16V	4.7uF 16V B	0.1400	0.0898	0.0646	0.0618	0.0561
TANT P SMD 6.8uF 6.3V	6.8uF 6.3V 20% P 0.5uA	0.2190	0.1402	0.1008	0.0964	0.0876
TANT A SMD 6.8uF 16V	6.8uF 16V A	0.1560	0.0998	0.0717	0.0686	0.0624
TANT P SMD 10uF 6.3V	10uF 6.3V 20% P 0.6uA	0.2890	0.1849	0.1329	0.1271	0.1156
TANT A SMD 10uF 10V	10uF 10V A	0.1070	0.0682	0.0490	0.0469	0.0426
TANT B SMD 10uF 16V	10uF 16V B	0.1350	0.0865	0.0622	0.0595	0.0541
TANT C SMD 10uF 25V	10uF 25V C	0.2700	0.1730	0.1243	0.1189	0.1081
TANT C SMD 10uF 35V	10uF 35V C	0.3640	0.2329	0.1674	0.1601	0.1456
TANT A SMD 15uF 10V	15.0uF 10V A 1.5uA ESR 2.5 Ohm	0.2450	0.1568	0.1127	0.1078	0.0980
TANT B SMD 15uF 10V	15.0uF 10V B 1.5uA ESR 2.5 Ohm	0.2980	0.1906	0.1370	0.1310	0.1191
TANT A SMD 22uF 6.3V	22uF 6.3V A	0.1400	0.0896	0.0644	0.0616	0.0560
TANT B SMD 22uF 10V	22uF 10V B	0.1880	0.1206	0.0867	0.0829	0.0754

Tantalum Capacitors SMD

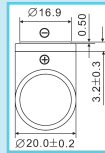
		1-9	10-99	100-499	500-1999	2000+
TANT B SMD 22uF 16V	22uF 16V B 3.52uA ESR 2.5 Ohm	0.1610	0.1031	0.0741	0.0709	0.0644
TANT C SMD 22uF 16V	22uF 16V C	0.2690	0.1723	0.1238	0.1184	0.1077
TANT B SMD 33uF 10V	33uF 10V B	0.2690	0.1723	0.1238	0.1184	0.1077
TANT D SMD 33uF 20V D	33uF 20V D	0.5170	0.3308	0.2378	0.2274	0.2067
TANT B SMD 47uF 6.3V	47uF 6.3V B	0.2010	0.1289	0.0926	0.0886	0.0805
TANT B SMD 47uF 10V	47uF 10V B	0.1900	0.1218	0.0875	0.0837	0.0761
TANT C SMD 47uF 10V	47uF 10V C	0.2960	0.1895	0.1362	0.1303	0.1184
TANT D SMD 47uF 16V	47uF 16V D	0.4950	0.3170	0.2279	0.2179	0.1981
TANT E SMD 47uF 35V	47uF 35V E	2.0140	1.2888	0.9263	0.8860	0.8055
TANT B SMD 68uF 6.3V	68uF 6.3V B	0.2800	0.1792	0.1288	0.1232	0.1120
TANT D SMD 68uF 16V	68uF 16V D	0.4740	0.3032	0.2179	0.2085	0.1895
TANT C SMD 100uF 10V	100uF 10V C	0.4150	0.2653	0.1907	0.1824	0.1658
TANT D SMD 100uF 10V	100uF 10V D	0.4740	0.3032	0.2179	0.2085	0.1895
TANT D SMD 100uF 16V	100uF 16V D	0.4950	0.3170	0.2279	0.2179	0.1981
TANT C SMD 150uF 6.3V	150uF 6.3V C	0.8320	0.5323	0.3826	0.3660	0.3327
TANT D SMD 150uF 10V	150uF 10V D	0.6190	0.3963	0.2848	0.2724	0.2477
TANT D SMD 220uF 10V	220uF 10V D	0.8050	0.5155	0.3705	0.3544	0.3222

Batteries

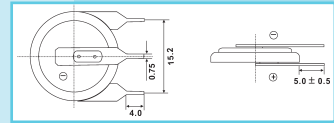
		1-9	10-99	100-499	500+
3.6V 60mAh	PCB Battery 3.6V 60mAh	1.374	1.272	1.150	1.018
CR1620	Lithium battery, 3V	0.287	0.266	0.240	0.212
CR2032	Lithium battery, 3V 210mAh	0.190	0.176	0.159	0.141
CR2032-H	Lithium battery, 3V 180mAh, horizontal mount	0.248	0.230	0.208	0.184
CR2032-V	Lithium battery, 3V 180mAh, vertical mount	0.263	0.244	0.220	0.195
CR2450	Lithium battery, 3V	0.861	0.798	0.721	0.638



CR2032-H



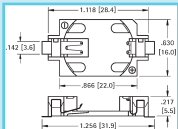
CR2032



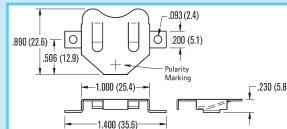
CR2032-V

Battery holders

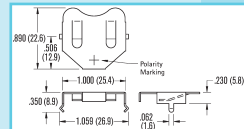
		1-9	10-99	100+	1000+
KEYSTONE 103	Coin cell PC battery holder, horizontal for CR2032	1.027	0.931	0.792	0.733
KEYSTONE 1060	Surf Mount Cell Holder, horizontal for CR2032	1.254	1.138	0.968	0.896
KEYSTONE 2990	PC battery contact "Negative"	0.056	0.051	0.043	0.040
KEYSTONE 3003	Coin cell PC battery holder, hor. for CR2032	0.251	0.228	0.194	0.180
KEYSTONE 3008	Coin cell PC battery holder, hor. for CR2450,SMD	0.427	0.387	0.329	0.305
KEYSTONE 3009	Coin cell PC battery holder, hor. for CR2450	0.398	0.361	0.307	0.285
KEYSTONE 55	Surface mount battery clip for "AAA"	0.191	0.173	0.147	0.136
KEYSTONE 637	PC button battery contact "+" for "AA"; "AAA"; "N"	0.099	0.090	0.076	0.071
KEYSTONE 629	PC spring battery contact "-" for "AA"; "AAA"; "N"	0.618	0.561	0.477	0.442
KEYSTONE 596	PC button battery contact "+" for "AA"; "N"	0.109	0.099	0.084	0.078
KEYSTONE 590	PC leaf-spring battery contact "-" for "AA"; "N"	0.109	0.099	0.084	0.078
KEYSTONE 597	PC button battery contact "+" for "AAA"	0.115	0.104	0.089	0.082
KEYSTONE 591	PC leaf-spring battery contact "-" for "AAA"	0.158	0.144	0.122	0.113
KEYSTONE 5226	Button battery contact "+" for "AAA"; "N"	0.078	0.071	0.061	0.056
KEYSTONE 5204	Spring battery contact "-" for "AAA"; "N"	0.131	0.119	0.101	0.093
KEYSTONE 5224	Button battery contact "+" for "AA"	0.078	0.071	0.061	0.056
KEYSTONE 5202	Spring battery contact "-" for "AA"	0.150	0.136	0.116	0.107
KEYSTONE 2242	9V battery snap	0.578	0.524	0.446	0.413
KEYSTONE 2460	Battery Holder for 1 "AA", PCB mounting	0.714	0.648	0.551	0.510
KEYSTONE 2462	Battery Holder for 2 "AA", PCB mounting	0.752	0.682	0.580	0.537
KEYSTONE 2463	Battery Holder for 2 "AA", wire leads	0.752	0.682	0.580	0.537
KEYSTONE 2465	Battery Holder for 3 "AA", wire leads	0.994	0.901	0.767	0.710
KEYSTONE 2474	Battery Holder for 2 "AA", snap-on connector	0.752	0.682	0.580	0.537
BH311P	Battery Holder for 1 "AA", PCB mounting	0.262	0.232	0.202	
BH322A	Battery holder for 2 "AA", wire leads	0.307	0.272	0.236	
BH341A	Battery holder for 4 "AA", wire leads	0.584	0.517	0.449	
BS-TC	9V battery snap (crimping type)	0.212	0.182	0.174	0.151



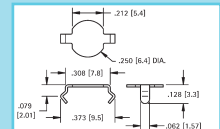
KEYSTONE 1060



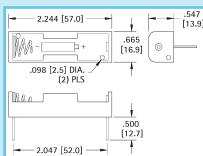
KEYSTONE 3008



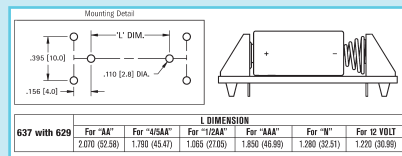
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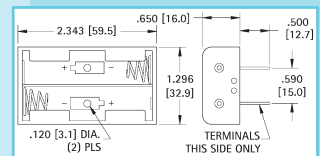
KEYSTONE 2990



KEYSTONE 2460



KEYSTONE 637 / KEYSTONE 629



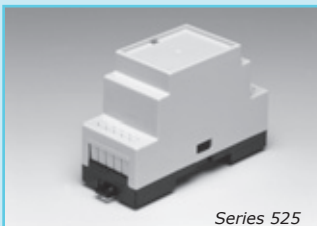
KEYSTONE 2990

Enclosures PACTEC		1-4	5-24	25-99	100+
C-23 PC BONE	enclosure W215.9xL234.95xH61.98	33.76	32.25	31.04	30.14
CF-125 BLACK	enclosure W212.34xL231.39xH41.91	22.26	21.13	20.00	18.86
CF-125 PC-BONE	enclosure W212.34xL231.39xH41.91	22.26	21.13	20.00	18.86
CM3-100 PC-BONE	enclosure W 84.6xL133.35xH31.75	11.31	10.73	10.16	9.58
CM69-120 PC-BONE	enclosure W160.8xL241.3xH35.1	17.91	16.99	16.08	15.17
CM69-120 GREY	enclosure W160.8xL241.3xH35.1	17.91	16.99	16.08	15.17
CNL-0000 PC-BONE	enclosure W 63.5 Blank end/Blank end	2.55	2.42	2.29	2.16
CNL-0006 PC-BONE	enclosure W 63.5 Blank end/DB-25(CC)	3.84	3.65	3.45	3.25
CNL-0101 BLACK	enclosure W 63.5 DB9 /DB9(CC)	2.55	2.42	2.29	2.16
CNM-0101 BLACK	enclosure W 63.5 DB9 /DB9(CC)	2.50	2.38	2.25	2.12
CNM-0407 PC BONE	enclosure W 63.5 DB9 /RJ11/45	2.50	2.38	2.25	2.12
CNS-0101 BLACK	enclosure W 63.5 DB9 /DB9(CC)	2.60	2.47	2.34	2.20
DM-2 BLACK	enclosure W264.2xL291.1xH60.5	36.01	34.40	33.12	32.15
DM-2 PC-BONE	enclosure W264.2xL291.1xH60.5	36.01	34.40	33.12	32.15
FLXT-2535-028 BLACK	enclosure W63.5xL88.9xH28.45	5.57	4.96	4.75	4.32
FLXT-2535-060 PC-BONE	enclosure W63.5xL88.9xH28.45	4.92	4.39	4.20	3.81
FLXT-4624-028 BLACK	enclosure W116.84xL60.96xH33.53	5.86	5.22	4.99	4.54
FLXT-4624-060 PC-BONE	enclosure W116.84xL60.96xH33.53	5.86	5.22	4.99	4.54
HM-9VB BLACK	enclosure W61.0xL96.5xH25.4 9V PANEL	4.93	4.40	4.21	3.82
HM-9VB PC-BONE	enclosure W61.0xL96.5xH25.4 9V PANEL	4.93	4.40	4.21	3.82
HML-9VB KIT BLACK	enclosure W69.9xL116.8xH25.4	6.85	6.10	5.84	5.31
HML-9VB KIT PC-BONE	enclosure W69.9xL116.8xH25.4	6.85	6.10	5.84	5.31
HP-000 BLACK	enclosure W91.4xL146.1xH257	7.39	6.59	6.31	5.73
HP-9VB BLACK	enclosure W91.4xL146.1xH257	8.06	7.19	6.88	6.25
HPL-4AA BLACK	enclosure W101.6xL190.5xH32.8	11.29	10.07	9.63	8.75
HPLS-4AA BLACK	enclosure W101.6xL190.5xH32.8/57.4	13.29	11.85	11.34	10.31
HPLS-9VB BLACK	enclosure W101.6xL190.5xH32.8/57.4	13.05	11.63	11.13	10.12
HPLS-9VB PC-BONE	enclosure W101.6xL190.5xH32.8/57.4	13.05	11.63	11.13	10.12
HPS-4AA BLACK	enclosure W144.7xL91.44.5xH32.8/57.4	11.44	10.20	9.76	8.87
HPS-9VB BLACK	enclosure W91.4xL146.1xH32.8/53.1	10.96	9.77	9.35	8.50
HPS-9VB PC-BONE	enclosure W91.4xL146.1xH32.8/53.1	10.96	9.77	9.35	8.50
HR-9VB BLACK	enclosure W82.6xL146.1xH24.1	6.87	6.12	5.85	5.32
HR-9VB PC-BONE	enclosure W82.6xL146.1xH24.1	6.87	6.12	5.85	5.32
HRP-9VB PC-BONE	enclosure W91.4xL146.1xH32.8/53.1	7.27	6.48	6.20	5.63
KEU-10 BLACK	enclosure W254.0xL204.0xH101.6	28.45	25.37	24.26	22.06
KEU-10LP BLACK	enclosure W254.0xL204.0xH51.8	22.68	20.22	19.34	17.58
KEU-10LP PC-BONE	enclosure W254.0xL204.0xH51.8	22.68	20.22	19.34	17.58
KEU-7 BLACK	enclosure W177.8xL127.0xH33	21.94	19.56	18.71	17.01
KEU-7 PC-BONE	enclosure W177.8xL127.0xH33	21.94	19.56	18.71	17.01
KEU-7LP BLACK	enclosure W177.8xL127.0xH33	15.09	13.45	12.87	11.70
KEU-7LP PC-BONE	enclosure W177.8xL127.0xH33	15.09	13.45	12.87	11.70
KEU-5LP BLACK	enclosure W137.2xL137.7xH40.4	12.43	11.08	10.60	9.64
KEU-5LP PC-BONE	enclosure W137.2xL137.7xH40.4	12.43	11.08	10.60	9.64
LH43-200 BLACK	enclosure W114.3xL76.2xH44.45	9.32	8.30	7.94	7.22
LH43-200 PC-BONE	enclosure W114.3xL76.2xH44.45	9.32	8.30	7.94	7.22
LH64-130 BLACK	enclosure W154.43xL108.2xH38.1	11.72	10.45	9.99	9.08
LH64-130 PC-BONE	enclosure W154.43xL108.2xH38.1	11.72	10.45	9.99	9.08
LH96-130 BLACK	enclosure W230.63xL159.0xH38.1	16.11	15.29	14.47	13.65
LH96-130 PC-BONE	enclosure W230.63xL159.0xH38.1	16.11	15.29	14.47	13.65
LH96-200 BLACK	enclosure W230.63xL159.0xH57.15	17.20	16.32	15.45	14.57
LH96-200 PC-BONE	enclosure W230.63xL159.0xH57.15	17.20	16.32	15.45	14.57
OD-45 PC BONE	enclosure W129.5xL78.7xH38.1	13.28	12.60	11.93	11.25
PS36-200 BLACK	enclosure W82.04xL148.59xH48.01	6.39	5.45	4.97	4.74
PT-8 BLACK	enclosure W16.76xL22.61xH6.68	24.22	20.63	18.84	17.94
PT-8 PC BONE	enclosure W16.76xL22.61xH6.68	24.22	20.63	18.84	17.94
PT-10 PC BONE	enclosure W18.80xL27.94xH7.62	29.15	24.83	22.67	21.59
PP-2AA GRAY/DARK GRAY	enclosure W8.18xL6.35xH2.79	9.28	7.91	7.22	6.87
PP GRAY/DARK GRAY	enclosure W8.18xL6.35xH2.79	8.60	7.33	6.69	6.37
PPL-2AA GRAY/DARK GRAY	enclosure W11.05xL6.27xH2.79	9.65	8.22	7.50	7.15
PPL-2AA GRAY/BLACK	enclosure W11.05xL6.27xH2.79	9.65	8.22	7.50	7.15
PPL GRAY/DARK GRAY	enclosure W11.05xL6.27xH2.79	9.02	7.68	7.01	6.68
PPL GRAY/BLACK	enclosure W11.05xL6.27xH2.79	9.02	7.68	7.01	6.68
RC-24-9VB/2AA PC BONE	enclosure W64.63xL78.7xH25.4	7.53	6.71	6.42	5.84
RC-37-2AA BLACK	enclosure W165.1xL78.7xH25.4	8.94	7.97	7.63	6.93
RM-178 BLACK	enclosure W431.8xL203.26xH43.18	38.64	36.91	35.53	34.50
RM-178 PC-BONE	enclosure W431.8xL203.26xH43.18	38.64	36.91	35.53	34.50
TR-9VB/2AA BLACK	enclosure W111.8xL195.66xH31.75	9.97	8.89	8.50	7.73
TR-9VB/2AA BLACK NEW	enclosure W111.8xL195.66xH31.75	9.97	8.89	8.50	7.73
TR-9VB/2AA PC BONE NEW	enclosure W111.8xL195.66xH31.75	9.87	8.80	8.41	7.65
TS BLACK	enclosure W83.57xL184.66xH31.75	12.83	11.43	10.94	9.94
TS PC-BONE	enclosure W83.57xL184.66xH31.75	12.83	11.43	10.94	9.94
TS-9VB/2AA BLACK	enclosure W83.57xL184.66xH34.29	13.42	11.97	11.45	10.41
TS-9VB/2AA PC-BONE	enclosure W83.57xL184.66xH34.29	13.42	11.97	11.45	10.41
TT BLACK	enclosure W112.8/83.6xL216.41xH29.2/38.1	14.53	12.95	12.39	11.27
TT PC-BONE	enclosure W112.8/83.6xL216.41xH29.2/38.1	14.53	12.95	12.39	11.27
TT-9VB/2AA BLACK	enclosure W112.8/83.6xL216.41xH29.2/38.1	15.11	13.47	12.89	11.72
TT-9VB/2AA PC-BONE	enclosure W112.8/83.6xL216.41xH29.2/38.1	15.11	13.47	12.89	11.72
XP PC BONE	enclosure W139.7xL91.5xH28	7.80	6.96	6.65	6.05
XP-9VB BLACK	enclosure W139.7xL91.5xH28	8.46	7.55	7.22	6.56
XPL-9VB PC BONE	enclosure W177.8xL101.6xH28	11.17	9.96	9.53	8.66
XPL PC BONE	enclosure W177.8xL101.6xH28	10.58	9.43	9.02	8.20
WM-46 PC-BONE	enclosure W95.25xL133.35xH25.40	6.78	6.04	5.78	5.25
WM-56 BLACK	enclosure W154.94xL129.54xH38.1	8.59	7.66	7.33	6.66

Enclosures BERNIC		1-4	5-24	25-99	100+
BE2069132001	Type 132 aluminium	57.63	50.71	47.95	46.10
Series 175:					
BE4969001750	Type 175 Complete	3.54	3.11	2.94	2.83
Series 200:					
BE2069203012	Type 203 ECO ABS clear/grey, % recess, f. 1/4 turn	6.23	5.48	5.18	4.98
BE2069203013	Type 203 ECO ABS grey/grey, % recess, f. 1/4 turn	6.23	5.48	5.18	4.98
BE2069212001	Type 212, grey body / lid	8.35	7.35	6.95	6.68
BE2069212002	Type 212, grey body / clear lid	8.35	7.35	6.95	6.68
BE2069212022	Type 212, grey body / clear lid 1/4turn	6.40	5.63	5.32	5.12
BE2069212111	Type 212, ECO ABS grey / grey 1/4 turn	6.40	5.63	5.32	5.12
BE2069212222	Type 212, ECO ABS grey /clear lid 1/4 turn, recess	6.40	5.63	5.32	5.12
BE2069214232	Type 214, grey body / clear lid	12.62	11.10	10.50	10.09
BE2069214342	Type 214, ECO ABS clear/grey 1/turn or M	12.68	11.16	10.55	10.14
BE2069222212	Type 222, ECO clear/grey without recess 1/4turn	12.74	11.21	10.60	10.19
BE2069258201	Type 258, Complete grey	9.50	8.36	7.90	7.60
BE2069265001	Type 265, grey body/lid	24.13	21.23	20.07	19.30
BE2069287001	Type 287, grey body/lid	37.78	33.25	31.43	30.22
Series 300:					
BE0669001303	Type 300, grey body / lid	4.96	4.36	4.13	3.97
Series 301:					
BE0669001301	Type 301, grey body / lid	4.47	3.93	3.72	3.57
Series 350:					
BE4969010350	Complete, closed, no terminals	5.12	4.51	4.26	4.10
BE4969010351	Complete, 257 for plugable	5.12	4.51	4.26	4.10
BE4969010352	Complete, 605 for fixed or screw-less term.	5.12	4.51	4.26	4.10
BE4969010354	Complete, knock-out, without lid	5.12	4.51	4.26	4.10
BE4969010355	Complete, 605 ventilated, without comb	5.12	4.51	4.26	4.10
BE4969010356	Complete, 257 ventilated	5.12	4.51	4.26	4.10
BE4969040355	Complete, 605 ventilated, without comb	5.12	4.51	4.26	4.10
BE4969001350	Transparent lid for type 350	0.78	0.69	0.65	0.63
BE4969002351	Base part for Type 350 plus clip	3.01	2.65	2.50	2.41
BE4972011259	Light conductor 37.9 mm	0.96	0.84	0.79	0.76
Series 400:					
BE2069401001	Type 401, grey, complete	3.71	3.27	3.09	2.97
BE2069403000	Type 403 black without end panels	2.93	2.58	2.44	2.34
BE2069403001	Type 403, grey, complete	3.74	3.29	3.11	2.99
BE2069403003	Type 403 black end panel for D-sub	0.41	0.36	0.34	0.33
BE2069403103	Type 403 black end panel without holes	0.41	0.36	0.34	0.33
BE2069404001	Type 404, grey, complete	4.45	3.91	3.70	3.56
BE2069407001	Type 407, grey, complete	4.87	4.29	4.05	3.90
BE2069410001	Type 410, grey, complete	5.25	4.62	4.37	4.20
BE2069413003	Type 413, grey, complete for self tapping screws	7.25	6.38	6.03	5.80
BE2069416001	Type 416, grey, complete	7.78	6.85	6.47	6.22
Series 450:					
BE4969003450	Complete, incl.DIN-rail clip,5+7 terminals	11.51	10.13	9.58	9.21
BE4969004450	Type 450 complete with wire guards	11.55	10.16	9.61	9.24
Series 500:					
BE2069000506	Type 500 complete	5.09	4.48	4.23	4.07
Series 525:					
BE4969004525	Complete with 14 terminals/screws	11.81	10.39	9.82	9.45
Series 600:					
BE669002600	Type 600 complete with knob	6.26	5.51	5.21	5.01
Series 601:					
BE669001602	Type 601 complete	5.84	5.14	4.86	4.67
Series 602:					
BE669002622	Type 602 complete	6.02	5.30	5.01	4.82
Series 700:					
BE4969010700	Complete, closed, no terminals	5.82	5.12	4.84	4.65
BE4969010701	Complete, 257 for plugable	5.82	5.12	4.84	4.65
BE4969010702	Complete, 605 for fixed or screw-less term.	5.82	5.12	4.84	4.65
BE4969010703	Complete, knock-out	5.82	5.12	4.84	4.65
BE4969010704	Complete, ventilated without lid	5.82	5.12	4.84	4.65
BE4969010705	Complete, 257 ventilated without lid	5.82	5.12	4.84	4.65
BE4969010707	Complete, knock-out, ventilated	5.82	5.12	4.84	4.65
BE4969001700	Transparent lid for type 700	0.89	0.78	0.74	0.71
Series 900:					
BE4969093901	Type 939, grey, ABS	5.55	4.88	4.62	4.44

Enclosures BERNIC

		1-4	5-24	25-99	100+
Series 1000:					
BE4969113102	Type 1131 ABS clear/grey	9.52	8.38	7.92	7.62
BE4969113101	Type 1131 ABS grey/grey	8.18	7.20	6.80	6.54
BE4969117101	Type 1171 ABS grey/grey	9.20	8.09	7.65	7.36
BE4969118102	Type 1181 ABS clear/grey	13.84	12.18	11.52	11.07
Series 1050:					
BE4969101051	Complete, 257 for plugable	7.05	6.20	5.87	5.64
BE4969101052	Complete, 605 for fixed or screw-less term.	7.05	6.20	5.87	5.64
BE4969101053	Type 1050, complete knock-out	7.05	6.20	5.87	5.64
BE4969101050	Complete, closed, no terminals	7.05	6.20	5.87	5.64
BE4969011050	Transparent lid for Type 1050	1.10	0.97	0.92	0.88
Series 1100:					
BE4969116801	Type 1168, Complete, Grey	7.42	6.53	6.17	5.94
BE4969116802	Type 1168, Complete, Black	7.42	6.53	6.17	5.94
BE4969118902	Type 1189, black	9.91	8.72	8.25	7.93
Series 1435, 1470					
BE4969014350	Type 1435, Complete	5.67	4.99	4.72	4.54
BE4969014700	Type 1470, Complete	7.20	6.34	5.99	5.76
Series 1570:					
BE4969101571	Complete, 257 for plugable	7.80	6.87	6.49	6.24
BE4969101572	Complete, 605 for fixed or screw-less term.	7.80	6.87	6.49	6.24
BE4969101573	Complete, type1570 knock-out	7.80	6.87	6.49	6.24
BE4969101575	Complete, type1570 / 605 ventilated	7.80	6.87	6.49	6.24
BE4969101577	Complete, type1570 ventil	7.80	6.87	6.49	6.24
BE4969101570	Complete, closed, no terminals	7.80	6.87	6.49	6.24
BE4969011570	Transparent lid for Type 1570	1.38	1.21	1.15	1.10
BE4969001570	Type 1570 top part grey/closed	4.01	3.53	3.34	3.21
Series 2000:					
BE4969832011	Type 2011S, grey, ABS	6.02	5.30	5.01	4.81
BE4969842011	Type 2011M, grey, ABS	6.73	5.92	5.60	5.38
BE4969852011	Type 2011L, grey, ABS	8.05	7.08	6.70	6.44
BE4969832051	Type 2051S, grey, ABS	7.78	6.85	6.48	6.23
BE4969842051	Type 2051M, grey, ABS	10.11	8.90	8.41	8.09
BE4969852051	Type 2051L, grey, ABS	12.59	11.08	10.47	10.07
BE4969832091	Type 2091M, grey, ABS	14.61	12.86	12.16	11.69
BE4969842091	Type 2091S, grey, ABS	16.38	14.41	13.63	13.10
BE4969852091	Type 2091L, grey, ABS	17.43	15.34	14.50	13.95
Series 2100:					
BE4969118302	Type 21183B, black	11.44	10.07	9.52	9.15
BE4969118801	Type 21188G, grey	11.73	10.32	9.76	9.38
Series 3000:					
BE4969863001	Type 3001, black, sealed	8.12	7.15	6.76	6.50
Series 3100:					
BE4969311501	Type 3115	3.82	3.36	3.18	3.06
BE4969316501	Type 3165	8.04	7.08	6.69	6.43
BE4969318501	Type 3185 grey/grey	11.40	10.03	9.48	9.12
Series 4000:					
BE4969014000	Type REX 4000 complete, grey/grey	19.27	16.96	16.04	15.42
Series 6000:					
BE4969601501	Type 6015	4.13	3.64	3.44	3.31
Series NOVA					
BE4969063001	Type NOVA63	9.29	8.26	7.36	6.88
BE4969883001	Type 3001, Grey, Sealed	8.60	7.64	6.82	6.37
Series GOLD					
BE4969020001	Type GOLD complete	6.47	5.75	5.13	4.80

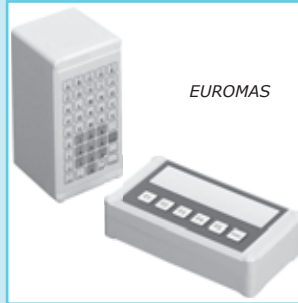


Enclosures BOPLA

		1-4	5-24	25+
BS 400 F-7035	Box BOS S-line;119.3x64.9x26.5mm;IP40;L Grey	11.21	10.76	
BS 402 F-7035	Box BOS S-line;119.3x64.9x26.5mm;IP65;L Grey	12.66	12.15	
BS 401 F-7035	Box BOS S-line;119.3x64.9x26.5mm;3xAAA;IP40;L Grey	14.29	13.72	
BS 403 F-7035	Box BOS S-line;119.3x64.9x26.5mm;3xAAA;IP40/65;L Grey	15.53	14.91	
BS 400 DIS-7035	Box BOS S-line;119.3x64.9x26.5mm;Disp Cut;IP40/65;L Grey	15.37	14.75	
BS 402 DIS-7035	Box BOS S-line;119.3x64.9x26.5mm; Disp Cut;IP65;L Grey	16.84	16.16	
BS 401 DIS-7035	Box BOS S-line;119.3x64.9x26.5mm; Disp Cut;3xAAA;IP40;L Grey	18.41	17.67	
BS 403 DIS-7024	Box BOS S-line;119.3x64.9x26.5mm;Disp Cut;3xAAA;IP40/165;Graph	19.67	18.88	
BS 400 DI-D-1003	BOS S-line 400;121.9x69x23.7mm;Décor Seal Yellow	8.72	8.37	
BS 400 DI-D-5005	BOS S-line 400;121.9x69x23.7mm;Décor Seal Blue	8.73	8.37	



BOS S-LINE



EUROMAS

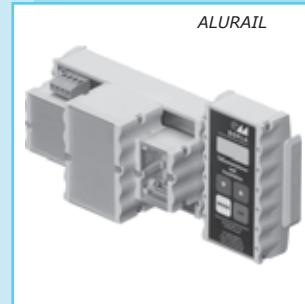


ALUBOS

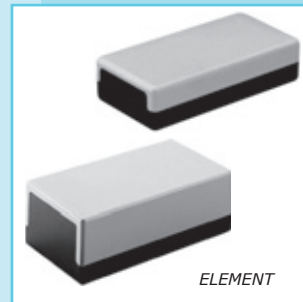
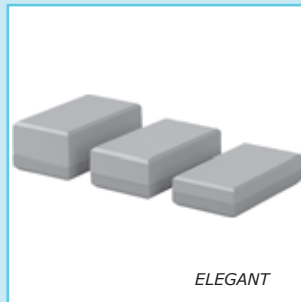
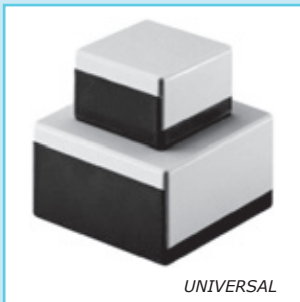
		1-4	5-24	25+
A 101	Box Euromas;Al;64x58x34mm;IP66;Silver Grey	16.80		
A 101 SIL	Euromas A101 Lid+Silicone Seal;Al;Silver Grey	18.67		
A 110	Box Euromas;Al;80x125x57mm;IP66;Silver Grey	32.00		
A 110 SIL	Euromas A110 Lid+Silicone Seal;Al;Silver Grey	34.27		
A 122	Box Euromas;Al;120x220x81mm;IP66;Silver Grey	66.28		
A 122 SIL	Euromas A122 Lid+Silicone Seal;Al;Silver Grey	72.92		
ABP 600 100mm	Box Alubos;Al; 100x57x32mm;IP65;Black	11.36	10.90	
ABP 600 150mm	Box Alubos;Al; 150x57x32mm;IP65;Black	17.00	16.32	
ABP 600 200mm	Box Alubos;Al; 200x57x32mm;IP65;Black	22.67	21.76	
ABD 600 SIL	Alubos ABP 600 Lid+Seal+Screws+Screw Covers	5.81	5.58	
ABP 800 100mm	Box Alubos;Al; 100x82x32mm;IP65;Black	12.10	11.61	
ABP 800 150mm	Box Alubos;Al; 150x82x32mm;IP65;Black	18.21	17.47	
ABP 800 200mm	Box Alubos;Al; 200x82x32mm;IP65;Black	24.24	23.27	
ABD 800 SIL	Alubos ABP 800 Lid+Seal+Screws+Screw Covers	6.04	5.80	
ABP 1000 150mm	Box Alubos;Al; 150x106x32mm;IP65;Black	20.01	19.20	
ABP 1000 200mm	Box Alubos;Al; 200x106x32mm;IP65;Black	26.61	25.54	
ABD 1000 SIL	Alubos ABP 1000 Lid+Seal+Screws+Screw Covers	7.18	6.47	
ARP 75/31-52,5	Box Alurail;52.5x75x33mm;Profil Anodised	3.82	3.46	3.30
ARP 75/31-70	Box Alurail;70x75x33mm;Profil Anodised	4.26	3.86	3.68
ARP 75/31-105	Box Alurail;105x75x33mm;Profil Anodised	5.23	4.73	4.51
ARP 75/31-140	Box Alurail;140x75x33mm;Profil Anodised	6.06	5.49	5.23
AR 75/31-KS1	Alurail;Caps Set for ARP 75/31;Drill Holes;Plastic	2.44	2.21	2.11
AR 75/31-KS2	Alurail; Caps Set for ARP 75/31;Plastic	2.47	2.24	2.13
AR 75/31-KS-AL	Alurail;Side Panels ARP 75/31;Al	8.68	7.86	7.49
AR 75-52,5 FP	Alurail;Front Panel AR 75-52,5 FP;Al	2.15	1.94	1.85
AR 75-70 FP	Alurail;Front Panel AR 75-70 FP;Al	2.54	2.30	2.19
AR 75-105	Alurail;Front Panel AR 75-105;Al	3.31	2.99	2.85
AR 75-140	Alurail;Front Panel AR 75-140;Al	4.09	3.70	3.52
ARP 105/31-52,5	Box Alurail;42.5x105x33mm;Profil Anodised	4.42	4.00	3.81
ARP 105/31-70	Box Alurail;60x105x33mm;Profil Anodised	5.01	4.54	4.32
ARP 105/31-105	Box Alurail;95x105x33mm;Profil Anodised	6.35	5.75	5.47
ARP 105/31-140	Box Alurail;130x105x33mm;Profil Anodised	7.68	6.95	6.62
AR 105/31-KS1	Alurail;Caps Set for ARP 105/31;Drill Holes;Plastic	2.97	2.69	2.56
AR 105/31-KS2	Alurail;Caps Set for ARP 105/31;Plastic	3.01	2.72	2.59
AR 105/31-KS-AL	Alurail;Side Panels ARP 105/31;A	10.27	9.29	8.85
AR 105-52,5 FP	Alurail;Front Panel AR 105-52,5;Al	2.27	2.05	1.96
AR 105-70 FP	Alurail;Front Panel AR 105-70;Al	2.67	2.42	2.30
AR 105-105	Alurail;Front Panel; AR 105-105;Al	3.45	3.12	2.97
AR 105-140	Alurail;Front Panel AR 105-140;Al	4.31	3.90	3.72
ARPMG 00/27-52,5	Module Profiles Alurail Set;42.5x27.5mm;Anodised	2.68	2.43	2.31
ARPMG 00/27-70	Module Profiles Alurail Set;60x27.5mm;Anodised	2.85	2.58	2.46
ARPMG 00/27-105	Module Profiles Alurail Set;95x27.5mm;Anodised	3.32	3.01	2.86
ARPMG 00/27-140	Module Profiles Alurail Set;130x27.5mm;Anodised	3.75	3.40	3.23
ARM 45/27	Alurail;Caps Set for ARPMG 00/27;Plastic	2.19	1.98	1.89
ARM 45-52,5	Alurail;Front Panel ARPMG 00/27-52,5;Al	1.82	1.65	1.57

Enclosures BOPLA

		1-4	5-24	25+
ARM 45-70	Alurail;Front Panel ARPMG 00/27-70;Al	2.10	1.90	1.81
ARM 45-105	Alurail;Front Panel ARPMG 00/27-105;Al	2.69	2.43	2.32
ARM 45-140	Alurail;Front Panel ARPMG 00/27-140;Al	3.41	3.09	2.94
AR 52,5 WB	Alurail;Wall Fixing Set AR 52,5;DIN Rail 42,5mm	4.35	3.93	3.75
AR 70 WB	Alurail;Wall Fixing Set AR 70;DIN Rail 60mm	4.46	4.04	3.85
AR 105 WB	Alurail;Wall Fixing Set AR 105;DIN Rail 95mm	4.55	4.12	3.92
AR 140 WB	Alurail;Wall Fixing Set AR 140;DIN Rail 130mm	4.66	4.22	4.02
UM 32009 L	Box Ultramas;157.5x62.2x198.9mm;IP40;Vent;Light Grey	30.88	29.63	
UM 52011 L	UM 52011 L;224.2x72.4x198.9mm;IP40;Vent;Light Grey	36.09	34.64	
AB 02003	Ultramas AB 02003;Extension sets UM32009L	10.29	9.88	
AB 02603	AB 02603;Extension sets UM32609L/UM5211L	10.92	10.48	
FPK 30009	Ultramas FPK 30009;Front Panel UM32009	2.84	2.56	
FPK 30012	Ultramas FPK 30012;Front Panel UM32009	2.91	2.62	
UM-AS	Ultramas Foot Set	3.42	3.08	
UM-ASK	Ultramas Foot Set Hinged	3.99	3.60	
BO 32006 L	Box Botego;174x49.96x196.9mm;IP30;Vent;Light Grey	22.87	21.95	
BO FP 30006	Botego Front Panel BO32006L;Al			
BO KS 1-7035	Botego Cap Set 1 BO;Light Grey	7.00	6.31	
BO KS 3-7035	Botego Cap Set 3 BO;Light Grey	9.89	9.49	
BO HS 30000	Botego Handle for BO 320xx (L)	20.94	20.10	



		1-4	5+
U 50	Box Universal;50x50x30mm;IP40;Light Grey/Graph	8.01	7.69
U 75	Box Universal;75x75x40mm;IP40;Light Grey/Graph	9.92	9.52
U 100	Box Universal;100x100x60mm;IP40;Light Grey/Graph	14.93	14.33
EG 1030	Box Elegant;100x54x30mm;IP40;Light Grey/Grey	10.01	9.60
EG 1030 L	Box Elegant;100x54x30mm;IP40;Vent;Light Grey/Grey	10.01	9.61
EG 1230	Box Elegant;125x67x30mm;IP40;Light Grey/Grey	11.81	11.34
EG 1230 L	Box Elegant;125x67x30mm;IP40;Vent;Light Grey/Grey	11.73	11.26
EG 1530	Box Elegant;150x82x30mm;IP40;Light Grey/Grey	14.47	13.88
EG 1530 L	Box Elegant;150x82x30mm;IP40;Vent;Light Grey/Grey	14.48	13.90
EG-SA	Elegant EG Screw Covers	1.42	1.36
EG-AK	Cover EG-AK set 2 pcs	1.01	0.97
E 406	Box Element;65x50x30mm;IP40;Light/Graphite Grey	8.15	7.82
E 406 VL	Box Element;65x50x30mm;IP30;Air Vents; Light/Graphite Grey	8.14	7.81
E 410	Box Element;100x50x25mm;IP40;Light/Graphite Grey	10.23	9.81
E 420	Box Element;100x50x40mm;IP40;Light/Graphite Grey	11.44	10.98
E 430	Box Element;120x65x40mm;IP40;Light/Graphite Grey	12.94	12.41
IC 5000	Box InterCard;212.3x198x165.7mm;IP65; Light Grey	69.41	66.62



Enclosures BOPLA

		1-4	5+
CC 500	CombiSet;68x136x224.5mm;Wall/Rail;Grey	35.07	33.66
CC 500 TK	CombiSet;68x136x252.5;IP65;Wall/Rail;Grey	44.29	42.51
ELP 620-0100 DW	Box BOS-Ecoline;100x57.5x22mm;IP40;Al	15.69	15.06
ELP 840-0150 D	Box BOS-Ecoline;150x80x42mm;IP40;Al	21.60	20.73
ELP 840-0100 DW	Box BOS-Ecoline;100x80x42mm;IP40;Al	17.76	17.04
BOS 400-ASC	Box BOS;100x65x24mm;IP40;9VBat;Clip;Black	7.19	6.90
BOS 401	Box BOS;100x65x24mm;IP40;Clip;Black	6.33	6.07
BOS 501	Box BOS;120x60x22mm;IP40;9V;Disp;Black	10.63	10.20
BOS 751	Box BOS;157x84x30mm;IP40;9V;Disp;Black	15.32	14.70
BOS 757	Box BOS;157x84x30mm;IP40;9V;Disp;Swtsch;Black	16.10	15.45
T 889 F	Box Futura/P;170x132x24.9/44.9mm;IP40;light grey	23.10	22.17
T 898 RO	Box Futura/P;195x151x25.2/49mm;IP40;light grey;Ventilated;Key area	30.84	29.60
T 899	Box Futura/P;125x150x15/30.7mm;IP40;light grey	20.13	19.32
ET 215-F	ET 215-F; EUROMAS II, ABS, 52x50x37mm	12.46	11.96
RCP 2500	RCP 2500 REGLO-CARD PLUS, ABS	63.78	61.20
RCP 1700	RCP 1700 REGLO-CARD PLUS, ABS	42.02	40.33



Enclosures CE

		1-49	50-99	100+
BX1/085/057/037/B	plastic box 85x57x37 black	1.76	1.68	1.58
BX1/085/057/037/W	plastic box 85x57x37 white	1.76	1.68	1.58
BX2/110/072/051/B	plastic box 110x72x51 black	2.63	2.51	2.37
BX3/070/042/026/B	plastic box 70x42x26 black	1.28	1.22	1.15
BX3/070/042/026/W	plastic box 70x42x26 white	1.28	1.22	1.15
BX4/102/059/046/BH	plastic box 102x59x46 black	1.89	1.81	1.71
BX4/102/059/046/WH	plastic box 102x59x46 white	1.89	1.81	1.71
BX5/102/059/034/BL	plastic box 102x59x34 black	1.76	1.68	1.58
BX5/102/059/034/WL	plastic box 102x59x34 white	1.76	1.68	1.58
BX9/057/036/020/B	plastic box 57x36x20 black	0.81	0.78	0.73
BX9/057/036/020/W	plastic box 57x36x20 white	0.81	0.78	0.73
BX12/110+HOLD/082/050/B	plastic box 110+x82x50 black	3.10	2.96	2.80
BX15/065+30/055/020+020/B	plastic box 65+2*15x55x20+20 black	1.77	1.69	1.60
ANGADAPTERBOX	plastic adapter box black for ANG18/24	2.92		
METAL BOX 7/TRP30	MET BOX w/TRANSF. / 250.5x250.5x90mm 30VA / 16.5V	28.79		
OT800S	enclosure for thermal printer 150x115x70			

Thermal printer mechanisms, moving heads, accessories, spare parts

		1-4	5-24	25-99	100+	1000+
MTP102-16B	16ch/line, 38mm paper width	34.633	33.087	31.850	30.922	☎
MTP201-24B	24ch/line, 58mm paper width	34.601	33.056	31.820	30.894	☎
MTP201G-166	166ch/line, 58mm paper width	69.014				
IFM001-01B	mtp series controller	53.869				
LB1256-E	motor driver IC, MTP series, symbol	1.429	1.290	0.682	0.662	☎
LB1257-E	motor driver IC, MTP series, graphic	2.686				
MTP102 PLATEN	Platen for MTP 102	4.343	3.775	3.508	3.341	
MTP201 PLATEN	Platen for MTP 201	4.343	3.775	3.508	3.341	
TH102	Thermal printer head MTP102	12.635	11.993	11.350	10.708	
TH201B	Thermal printer head MTP201B	12.635	11.993	11.350	10.708	
TH312	Thermal printer head STP312	15.102	14.334	13.566	12.798	
TH401B	Thermal printer head MTP401B	12.635	11.993	11.350	10.708	
TH401G	Thermal printer head MTP401G	13.371	12.691	12.011	11.331	
TH411B/G	Thermal printer head MTP401G	15.102	14.334	13.566	12.798	

Thermal printer mechanisms, moving heads, accessories, spare parts

		1-4	5-24	25-99	100+
FF25L6S	motor connector, streight, MTP series symbol	0.086	0.078	0.067	0.062
FF25L6R	motor connector, right, MTP series symbol	0.088	0.080	0.068	0.063
FF25L8R	thermal pr head conn. right, MTP series symbol	0.086	0.078	0.067	0.062
FF25L8S	thermal pr head conn. streight, MTP series symbol	0.085	0.077	0.066	0.061
FF25L9S	thermal pr head conn. streight, MTP series graphic	0.102	0.092	0.078	0.073
FF25L9R	thermal pr head conn. right, MTP series graphic	0.102	0.093	0.079	0.073

For more information about Flat Flexible Cable Connectors - page 141

Thermal printer mechanisms, fixed heads, accessories, spare parts

		1-9	10-99	100-499	500+
LTP1245R-C384-E	384 dot/l, 58mm paper, angled load, RoHS	43.379	41.443	39.894	38.732
LTP1245U-S384-E	384 dot/l, 58mm paper, streight load, feed knop RoHS	43.379	41.443	39.894	38.732
LTP2342C-S576	576 dot/l, 58mm paper,	79.191	75.656	72.828	70.706
LTP2442C-S832	832 dot/l, 58mm paper,	95.021	90.779	87.386	84.841
LTPH245D-C384-E	384 dot/l, 58mm paper, easy operation	39.466	37.705	36.295	35.238
LTP2245B-C384-E	384 dot/l, 58mm paper, easy operation	29.376	28.065	27.016	26.229
LTP2245U-C384-E	384 dot/l, 58mm paper, easy operation, 2sensors	22.246	21.253	20.458	19.862

LB1836M motor driver IC for LTP1245K 4.434

LB1843V motor driver IC for LTP1245 4.434

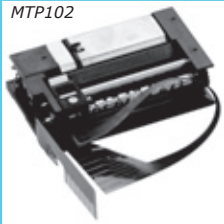
		1-9	10-99	100-499	500+
FF10Z9R	conn right 9P PCB for motor and sensor LTP1245	0.139	0.126	0.107	0.099
FF10Z9S	conn streight 9P PCB for motor and sensor LTP1245	0.137	0.125	0.106	0.098
FF12Z20R	conn right 20P PCB for therm head LTP1245	0.542	0.492	0.418	0.387
FF12Z20S	conn streight 20P PCB for therm head LTP1245	0.542	0.492	0.418	0.387

For more information about Flat Flexible Cable Connectors - page 141

Thermal printers, accessories, spare parts

		1+
DPU414-30B	320 dot/l, 112 mm paper, ser/par. Portable	174.433
BP-4005	battery for DPU 414	42.292
PW-4007-E1	AC adapter for DPU414(220V)	47.400

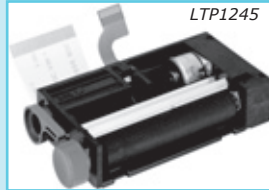
MTP102



MTP201



LTP1245



LTPC245



LTPZ245



LTP2342



LTPH245



DPU414



Tools, equipment, consumables

**Tools
Cutters TRONEX**

1+

TRONEX 5111
 TRONEX 5112
 TRONEX 5113
 TRONEX 5121
 TRONEX 5122
 TRONEX 5111L / 5511
 TRONEX 5112L / 5512
 TRONEX 5113L / 5513
 TRONEX 5121L / 5521
 TRONEX 5211
 TRONEX 5212
 TRONEX 5213
 TRONEX 5221
 TRONEX 5222
 TRONEX 5223
 TRONEX 5321 / 5311
 TRONEX 5322 / 5312
 TRONEX 5323 / 5313
 TRONEX 7111
 TRONEX 7112
 TRONEX 7113
 TRONEX 7121
 TRONEX 7122
 TRONEX 7111L / 7511
 TRONEX 7112L / 7512
 TRONEX 7113L / 7513
 TRONEX 7121L / 7521
 TRONEX 7211
 TRONEX 7212
 TRONEX 7213
 TRONEX 7221
 TRONEX 7222
 TRONEX 7223
 TRONEX 7321 / 7311
 TRONEX 7322 / 7312
 TRONEX 7323 / 7313
 TRONEX 7272 / 5072
 TRONEX 7172 / 7072
 TRONEX 7274 / 5074
 TRONEX 7174 / 7074
 TRONEX 7275 / 5075
 TRONEX 7175 / 7075
 TRONEX 7282 / 5082
 TRONEX 7182 / 7082
 TRONEX 7283 / 5083
 TRONEX 7183 / 7083
 TRONEX 7249 / 5049
 TRONEX 7270 / 5070
 TRONEX 7170 / 7070
 TRONEX 7271 / 5071
 TRONEX 7171 / 7071
 TRONEX 7288 / 5088
 TRONEX 7230 / 5030
 TRONEX 7130 / 7030

cutters, oval head, semi-flush, standard
 cutters, oval head, flush, standard
 cutters, oval head, opt. flush, standard
 cutters, oval relief head, semi-flush, st.
 cutters, oval relief head, flush, standard
 cutters, large oval head, semi-flush, st.
 cutters, large oval head, flush, standard
 cutters, large oval head, opt. flush, st.
 cutters, large oval relief, semi-flush, st.
 cutters, taper head, semi-flush, stand.
 cutters, taper head, flush, standard
 cutters, taper head, opt. flush, standard
 cutters, taper relief, semi-flush, stand.
 cutters, taper relief head, flush, stand.
 cutters, taper relief head, opt. flush, st.
 cutters, mini-oval head, semi-flush, st.
 cutters, mini-oval head, flush, standard
 cutters, mini-oval head, opt. flush, stand.
 cutters, oval head, semi-flush, erg.
 cutters, oval head, flush, ergonomic
 cutters, oval head, opt. flush, ergonomic
 cutters, oval relief head, semi-flush, erg.
 cutters, oval relief head, flush, erg.
 cutters, large oval head, semi-flush, erg.
 cutters, large oval head, flush, erg.
 cutters, large oval head, opt. flush, erg.
 cutters, large oval relief, semi-flush, erg.
 cutters, taper head, semi-flush, erg.
 cutters, taper head, flush, ergonomic
 cutters, taper head, opt. flush, erg.
 cutters, taper relief, semi-flush, erg.
 cutters, taper relief head, flush, erg.
 cutters, taper relief head, opt. flush, erg.
 cutters, mini-oval head, semi-flush, erg.
 cutters, mini-oval head, flush, ergonomic
 cutters, mini-oval head, opt. flush, erg.
 cutters, angulated, opt. flush, standard 500
 end cutter, opt. flush, ergonomic 500
 end cutter, opt. flush, standard
 cutters, angulated, opt. flush, standard 500
 cutters, angulated, opt. flush, ergonomic 500
 cutters, angulated, opt. flush, standard 500
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 cutters, angulated, opt. flush, ergonomic 700
 cutters, taper relief mini-head, opt. flush
 tip cutter, opt. flush, standard
 tip cutter, opt. flush, ergonomic
 tip cutter, opt. flush, standard
 tip cutter, opt. flush, ergonomic
 tip cutter, opt. flush, standard
 end cutter, opt. flush, standard
 end cutter, opt. flush, ergonomic

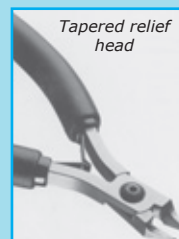
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 65.55
 62.24
 63.89
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 59.00
 57.35
 59.00
 54.05
 59.00
 63.89
 65.55
 57.35
 62.38
 78.01



Oval head



Tapered head



Tapered relief head



Tip cutter



Shear cutter



Angulated cutter

Electronic service cases BERNSTEIN

1+

BERNSTEIN1200 PRESTIGE	Service Case PRESTIGE with 38 tools	877.69
BERNSTEIN1500 HANDY	Service Case HANDY with 41 tools	607.24
BERNSTEIN2200 ANTISTATIC	Service Set ANTISTATIC with 12 tools	295.59
BERNSTEIN2250 CARAT	Service Set CARAT with 9 conductive tools	203.38
BERNSTEIN2270 ACCENT	Service Set ACCENT with 9 conductive tools	146.53
BERNSTEIN2400 RADIO-TV	Radio-TV-Service Tool Roll with 24 tools	331.69
BERNSTEIN2600 EUROline	Service Set EUROline with 22 tools	362.54
BERNSTEIN2700 NETWORK	Service Set NETWORK with 23 tools	417.16
BERNSTEIN3000 MASTER	Service Case MASTER with 19 tools	307.45
BERNSTEIN3010 MASTER	Service Case MASTER without soldering iron	273.00
BERNSTEIN3015 MASTER	MASTER service case without tools	104.22
BERNSTEIN3000 DATA	Service Case DATA with 34 tools	632.52
BERNSTEIN6400 TECHNIK	Service Case TECHNIK with 82 tools	1171.11
BERNSTEIN6600 TELECOM	Service Case TELECOM with 118 tools	1900.82
BERNSTEIN6700 TELEDATA	Service Case TELEDATA with 80 tools	1022.85
BERNSTEIN8160 VDE	VDE Tool Set with 12 tools	304.02

Adjusting tools BERNSTEIN

1+

BERNSTEIN1750	13-piece set ceramic adjusting screwdrivers	191.25
BERNSTEIN1853	Adjusting screwdriver with ceramic blades 110mm	16.11
BERNSTEIN1184	Double-ended adjusting key	8.21
BERNSTEIN1185	Double-ended adjusting key bronze	11.50
BERNSTEIN1531	Crosspoint adjusting key, 2.4 x 0.4mm	6.76
BERNSTEIN1532	Crosspoint adjusting key, 2.7 x 0.8mm	6.76
BERNSTEIN1533	Crosspoint adjusting key, 3.0 x 0.8mm	6.76
BERNSTEIN1534	Crosspoint adjusting key, 4.0 x 1.5mm	6.76
BERNSTEIN1551	Screwdriver adjusting key, 1.4 x 0.4mm	6.00
BERNSTEIN1552	Screwdriver adjusting key, 2.0 x 0.4mm	6.00
BERNSTEIN1553	Screwdriver adjusting key, 2.4 x 0.5mm	6.00
BERNSTEIN1554	Screwdriver adjusting key, 2.7 x 0.5mm	6.00
BERNSTEIN1555	Screwdriver adjusting key, 3.0 x 0.6mm	6.00
BERNSTEIN1160	7-piece set television adjusting screwdrivers	40.23
BERNSTEIN1153	Adjusting screwdriver with blade from sp.plastic	6.19
BERNSTEIN1154	Adjusting screwdriver with blade from sp.plastic	6.25
BERNSTEIN1150	7-piece set adjusting screwdrivers	49.20
BERNSTEIN1300	7-piece set adjusting screwdrivers bronze tips	65.56
BERNSTEIN1180	7-piece set adjusting screwdrivers	56.40
BERNSTEIN1190	7-piece set adjusting tools in a leather case	58.61
BERNSTEIN1970	21-piece adjusting tools	145.02
BERNSTEIN1200	12-piece set special and adjusting tools in a case	114.32
BERNSTEIN1250	12-piece set special and adjusting tools in a case	130.05
BERNSTEIN22651	Test prods red	8.65
BERNSTEIN22652	Test prods black	8.65
BERNSTEIN2125	Desoldering lever, slotted at both ends	8.65
BERNSTEIN2127	Tin knife ceramic blade for PCB paths cutting	10.86
BERNSTEIN2152	Tool holder	9.47
BERNSTEIN2155	Claw-type gripper	17.87
BERNSTEIN2157	Flexible claw-type gripper	24.51
BERNSTEIN2165	Contact cleaner Ni	1.04
BERNSTEIN2166	Glass fibre contact cleaner brush	5.62
BERNSTEIN1909	Engineer's mirror with extension	14.84
BERNSTEIN1978	Engineer's mirror with screwdriver blade	15.03
BERNSTEIN2275	Repair mirror	10.36
BERNSTEIN2281	Double-jointed mirror	18.89
BERNSTEIN2282	Telescopic mirror	21.73
BERNSTEIN2285	Inspection mirror	35.05
BERNSTEIN2291	Plastic magnifying glass, Ø30mm, 5x	8.15
BERNSTEIN2293	Hand magnifier, Ø65mm, 3x	46.23
BERNSTEIN2295	Hand magnifier with light, Ø35mm, 4x	36.07
BERNSTEIN2655	Pocket lamp laser spot fiber bent optic adaptor	29.81
BERNSTEIN265580	Pocket lamp laser spot fiber straight optic adaptor	34.49
BERNSTEIN2130	6-piece set of spring hooks	37.71
BERNSTEIN2131	Spring hook 205mm	10.36
BERNSTEIN2132	Spring hook 175mm	9.60
BERNSTEIN2601	IC-tweezers	7.07
BERNSTEIN2620	PLCC-extractor	8.97
BERNSTEIN2705	Contact-free voltage detector	24.63
BERNSTEIN2751	Test headphones	193.90

Cutters, pliers BERNSTEIN

1+

BERNSTEIN365114	Side cutters, 120mm, rounded head	41.75
BERNSTEIN365114DR	Side cutters, 120mm, with wire retaining spring	48.07
BERNSTEIN365214	Side cutters, 120mm, pointed head	40.99
BERNSTEIN365314	Side cutters, 120mm, with flat cutting edge	41.88
BERNSTEIN365414	Side cutters, 125mm, rounded head	38.65
BERNSTEIN365514	Side cutters, 125mm, rounded head	38.65
BERNSTEIN365614	Side cutters, 125mm, pointed head	41.12
BERNSTEIN365714	Side cutters, 125mm, pointed head	41.12
BERNSTEIN367114	End cutters, 130mm, without side face	74.91

Cutters, pliers BERNSTEIN

1+

BERNSTEIN367214	End cutters, 130mm, without side face, angular	74.91
BERNSTEIN367314	End cutters, 130mm, without side face, angular	87.67
BERNSTEIN367414	End cutters, 130mm, without side face, angular	84.89
BERNSTEIN368114	Round nose pliers, 130mm	32.91
BERNSTEIN368214	Flat nose pliers 130mm	32.28
BERNSTEIN368314	Snipe nose pliers, 130mm	32.28
BERNSTEIN3670	4-piece set of EUROline pliers in a case	223.84
BERNSTEIN365115	Mini side cutters conductive, 120mm	42.63
BERNSTEIN365115DR	Mini side cutters conductive, 120mm	48.95
BERNSTEIN365215	Mini side cutters conductive, 120mm	41.81
BERNSTEIN365315	Mini side cutters conductive, 120mm	42.76
BERNSTEIN365415	Side cutters, 125mm, rounded head conductive	39.48
BERNSTEIN365515	Side cutters, 125mm, rounded head conductive	39.48
BERNSTEIN365615	Side cutters, 125mm, pointed head conductive	42.00
BERNSTEIN365715	Side cutters, 125mm, pointed head conductive	42.00
BERNSTEIN367115	End cutters, 130mm, conductive	75.73
BERNSTEIN367215	End cutters, 130mm, conductive, angular	75.73
BERNSTEIN367315	End cutters, 130mm, conductive, angular	88.49
BERNSTEIN367415	Top cutters, 130mm, conductive	85.77
BERNSTEIN367515	Oblique top cutters, 115mm, conductive	50.72
BERNSTEIN368115	Round nose pliers, 130mm, conductive	33.79
BERNSTEIN368215	Flat nose pliers, 130mm, conductive	33.10
BERNSTEIN368315	Snipe nose pliers, 130mm, conductive	33.10
BERNSTEIN3680	4-piece set of pliers conductive in a case	227.19
BERNSTEIN363313	Snipe nose pliers, 120mm, conductive	25.14
BERNSTEIN363413	Snipe nose pliers, angular, 120mm, conductive	26.97
BERNSTEIN3650	5-piece set conductive pliers in a table support	136.87
BERNSTEIN390113	Side cutters, 125mm, rounded head, conductive	31.20
BERNSTEIN324513	Telephone pliers, 200mm, conductive	35.98
BERNSTEIN373213	Combination pliers with wire cutter, 165mm, conductive	30.62
BERNSTEIN30612	Side cutters, without side face, insulation, 125mm	43.27
BERNSTEIN31112	Side cutters, 120mm, with flat cutting edge	30.70
BERNSTEIN31122	Side cutters, 120mm, rounded head	30.70
BERNSTEIN31292	Slimline top cutters, 115mm	40.49
BERNSTEIN34352	Micro round nose pliers, 120mm	29.94
BERNSTEIN34452	Micro flat nose pliers, 120mm	29.31
BERNSTEIN34552	Micro snipe nose pliers, 120mm	29.24
BERNSTEIN34622	Flat nose pliers, 130mm	31.52
BERNSTEIN34722	Flat nose pliers, 145mm	35.24
BERNSTEIN34632	Snipe nose pliers, 130mm	31.52
BERNSTEIN34732	Snipe nose pliers, 145mm	35.24
BERNSTEIN31311	Side cutters, swedish design, insulation, 120mm	26.03
BERNSTEIN31331	Side cutters, swedish design, insulation, 145mm	28.83
BERNSTEIN32351	Telephone pliers with wire cutters, 145mm	24.62
BERNSTEIN3255	Telephone pliers, 200mm, long bent jaws	34.38
BERNSTEIN32551	Telephone pliers, 200mm, bent jaws, insulation	37.06
BERNSTEIN35111	Flat pliers, 120mm	19.77
BERNSTEIN37321	Combination pliers with wire cutter, 165mm	29.79
BERNSTEIN3565	Water pump pliers, 130mm	15.76
BERNSTEIN3815	Wire stripper with adjusting screw, 155mm	23.54
BERNSTEIN38151	Wire stripper with adjusting screw, 155mm, insul.	26.22
BERNSTEIN38352	Wire strippers, 160mm	46.04
BERNSTEIN38756	Pressing pliers for multicore cable end 0.5-16mm ²	31.76
BERNSTEIN3940	4-piece pliers set, burnished, in a wallet	96.07
BERNSTEIN390112	Side cutters, 120mm, with slim rounded head	20.65
BERNSTEIN390612	End cutters, 125mm, without side face	24.38
BERNSTEIN36018	Side cutters, 120mm, with slim rounded head	27.29
BERNSTEIN36038	Side cutters, 120mm, with slim pointed head	27.60
BERNSTEIN36068	End cutters, 120mm, without side face	34.36
BERNSTEIN36318	Round nose pliers, 120mm	25.14
BERNSTEIN3142VDE	Power side cutters, 165mm, VDE safety insulation	42.99
BERNSTEIN3244VDE	Telephone pliers, 165mm, VDE safety insulation	37.44
BERNSTEIN3245VDE	Telephone pliers, 205mm, VDE safety insulation	41.46
BERNSTEIN3255VDE	Telephone pliers, 205mm, long bent jaws, VDE	43.76
BERNSTEIN3545VDE	Flat nose pliers, 185mm, VDE safety insulation	35.47
BERNSTEIN3733VDE	Combination pliers, 185mm, VDE insulation	39.10
BERNSTEIN3815VDE	Wire stripper with adjusting screw, 160mm, VDE	34.70
BERNSTEIN13906VDE	Side cutters, 160mm, VDE safety insulation	19.07
BERNSTEIN13915VDE	Telephone pliers, 160mm, straight, VDE insulation	18.68
BERNSTEIN13926VDE	Round nose pliers, 160mm, VDE safety insulation	19.71
BERNSTEIN13946VDE	Wire strippers, 160mm, VDE safety insulation	21.38
BERNSTEIN13106VDE	Side cutters, 160mm, multilayered, VDE insulation	28.70
BERNSTEIN13207VDE	Telephone pliers, 205mm, straight, VDE insulation	31.64
BERNSTEIN13506VDE	Round nose pliers, 165mm, VDE insulation	26.28
BERNSTEIN13707VDE	Combination pliers, 190mm, VDE insulation	30.21
BERNSTEIN13806VDE	Wire strippers, 165mm, VDE insulation	30.87
BERNSTEIN30605	Crimping pliers 6P/6C, 6P/4C, 6P/2C and 8P/8C	34.40
BERNSTEIN30608	Universal crimping pliers for connectors	26.34
BERNSTEIN30609	Universal crimping pliers for connectors	103.91
BERNSTEIN30856	Crimp tool	7.07
BERNSTEIN30645	Stripping side cutters, 125mm	5.20

Screwdrivers BERNSTEIN

1+

BERNSTEIN41055	Engineer's screwdriver, 6x1.0mm, 200mm	6.96
BERNSTEIN4142	Screwdriver to DIN 5265 size 4x0.8mm, 100mm	4.90
BERNSTEIN4151	Swiss screwdriver Chrome Vanadium size 0, 80mm	4.27
BERNSTEIN4152	Swiss screwdriver Chrome Vanadium size 1, 90mm	4.57
BERNSTEIN4153	Swiss screwdriver Chrome Vanadium size 2, 100mm	5.09
BERNSTEIN4154	Swiss screwdriver Chrome Vanadium size 3, 120mm	6.57
BERNSTEIN4155	Swiss screwdriver Chrome Vanadium size 4, 140mm	7.67
BERNSTEIN4156	Swiss screwdriver Chrome Vanadium size 5, 160mm	8.85
BERNSTEIN4157	Swiss screwdriver Chrome Vanadium size 6, 180mm	10.24
BERNSTEIN4255	Cross recess screwdriver PH size 0, 60mm	3.51
BERNSTEIN4256	Cross recess screwdriver PH size 1, 80mm	4.57
BERNSTEIN4257	Cross recess screwdriver PH size 2, 100mm	6.24
BERNSTEIN4258	Cross recess screwdriver PH size 3, 150mm	8.34
BERNSTEIN4271	Cross recess screwdriver PZ, size 0, 60mm	4.02
BERNSTEIN4272	Cross recess screwdriver PZ, size 1, 80mm	4.90
BERNSTEIN4273	Cross recess screwdriver PZ, size 2, 100mm	6.89
BERNSTEIN4274	Cross recess screwdriver PZ, size 3, 150mm	8.80
BERNSTEIN4222	Very long screwdriver, 3.0x0.5mm, 260mm	5.35
BERNSTEIN4223	Very long screwdriver, 4.0x1.0mm, 260mm	6.51
BERNSTEIN4224	Very long screwdriver, 5.5x1.2mm, 300mm	8.13
BERNSTEIN4227	Very long cross recess screwdriver PH size1,300mm	8.82
BERNSTEIN4228	Very long cross recess screwdriver PH size2,300mm	10.73
BERNSTEIN4229	Very long cross recess screwdriver PH size3,300mm	14.63
BERNSTEIN4322	Chubby screwdriver, 6.5x1.2mm, 25mm	5.15
BERNSTEIN4301	Miniature screwdriver 1.8x0.5mm, 40mm	0.31
BERNSTEIN4311	Screwdriver for grub screws 2.8x0.6mm, 80mm	1.16
BERNSTEIN4331	Assembly screwdriver, 6x1.0mm, 45mm	2.15
BERNSTEIN4504	Workshop screwdriver, 5x1.0mm, 100mm	5.99
BERNSTEIN4506	Workshop screwdriver, 6x1.2mm, 125mm	7.15
BERNSTEIN4508	Workshop screwdriver, 7x1.2mm, 150mm	8.52
BERNSTEIN4509	Workshop screwdriver, 8x1.2mm, 175mm	9.46
BERNSTEIN4522	Ectrician screwdriver, 3x0.5mm, 75mm	4.70
BERNSTEIN4523	Ectrician screwdriver, 4x0.8mm, 100mm	5.15
BERNSTEIN4524	Ectrician screwdriver, 5x1.0mm, 150mm	6.31
BERNSTEIN4532	Cross recess screwdriver PH size 0, 60mm	5.04
BERNSTEIN4533	Cross recess screwdriver PH size 1, 80mm	5.73
BERNSTEIN4534	Cross recess screwdriver PH size 2, 100mm	6.63
BERNSTEIN4542	Cross recess screwdriver PZ, size 0, 60mm	5.17
BERNSTEIN4543	Cross recess screwdriver PZ, size 1, 80mm	5.86
BERNSTEIN4544	Cross recess screwdriver PZ, size 2, 100mm	6.83
BERNSTEIN4545	Cross recess screwdriver PZ, size 3, 150mm	9.72
BERNSTEIN4602	Screwdriver 1.2x0.25mm, 50mm, conductive material	5.62
BERNSTEIN4606	Screwdriver 2.5x0.4mm, 60mm, conductive material	4.86
BERNSTEIN4620	6-piece screwdriver set, conductive material	37.83
BERNSTEIN4652	Cross recess screwdriver PH size 1, 80mm, ESD	6.12
BERNSTEIN6679	TORX-screwdriver T4	6.95
BERNSTEIN6681	TORX-screwdriver T5	6.88
BERNSTEIN6682	TORX-screwdriver T6	6.32
BERNSTEIN6683	TORX-screwdriver T7	6.32
BERNSTEIN6684	TORX-screwdriver T8	6.32
BERNSTEIN4180	6-piece screwdriver set	39.98
BERNSTEIN4530	6-piece screwdriver set EUROline Power	41.56
BERNSTEIN4370	6-piece watchmaker's screwdriver set	37.40
BERNSTEIN4391	Watchmaker's screwdriver	8.27
BERNSTEIN4407	Screw holder blade, 4x4mm, 110mm	14.27
BERNSTEIN14603VDE	VDE screwdriver, 4x0.6mm, 100mm	4.66
BERNSTEIN14600VDE	7-piece VDE screwdriver set	40.77

Tweezers, files and knives BERNSTEIN

1+

BERNSTEIN5006	Component tweezers, 140mm, Ni-plated	9.35
BERNSTEIN5007	Component tweezers, 140mm, Ni-plated	8.97
BERNSTEIN5008	Component tweezers, 140mm, Ni-plated	9.03
BERNSTEIN5013	Component tweezers, 120mm, antimagnetic	14.65
BERNSTEIN5107	Tweezers, 150mm, bent tips, nickel-plated	9.03
BERNSTEIN51071	Tweezers, 150mm, bent tips, antiallergical coat	9.85
BERNSTEIN51076	Tweezers, 150mm, bent tips, PVC-insulated	10.11
BERNSTEIN5115	Heat dissipating tweezers, 165mm, nickel-plated	23.81
BERNSTEIN5117	Tweezers, 145mm, Ni-plated, straight-flat-wide	8.15
BERNSTEIN51171	Tweezers, 145mm, straight-flat,antiallergical coat	8.97
BERNSTEIN51176	Tweezers, 145mm, straight-flat,Ni-plated, PVC	9.22
BERNSTEIN5119	Jewelleries tweezers	8.72
BERNSTEIN5121	Tweezers, 120mm, straight pointed tips, Ni-plated	5.68
BERNSTEIN51211	Tweezers, 120mm, straight tips,antiallergical coat	6.51
BERNSTEIN5095	Tweezers with ceramic tips, 130mm, slim pointed	45.48
BERNSTEIN5096	Tweezers with ceramic tips,130 mm, slim,2 mm	45.48
BERNSTEIN5131	Watchmaker's tweezers 110mm	15.41
BERNSTEIN5134	Watchmaker's tweezers 115mm	17.05
BERNSTEIN5155	Crossed tweezers, 160mm, nickel-plated	13.01
BERNSTEIN51551	Crossed tweezers, 160mm, antiallergical coating	13.83
BERNSTEIN5156	Crossed soldering tweezers, 160mm, nickel-plated	17.81
BERNSTEIN5031	Titan watchmaker 's tweezers, 110mm, sharp	21.41

Tweezers, files and knives BERNSTEIN

1+

BERNSTEIN5035	Titan tweezers, 120mm, sharply pointed	23.56
BERNSTEIN5036	Titan tweezers, 145mm, straight-round-wide	23.69
BERNSTEIN5037	Titan tweezers, 150mm, fine bent tips	27.35
BERNSTEIN5049	Tweezers for SMT, 110mm, straight	14.53
BERNSTEIN5051	Tweezers for SMT, 115mm, stainless, ACID resist	13.07
BERNSTEIN505113	Tweezers for SMT, 115mm, ESD coating	14.59
BERNSTEIN5052	Tweezers for SMT, 110mm, stainless, ACID resist	15.35
BERNSTEIN505213	Tweezers for SMT, 110mm, ESD coating	16.86
BERNSTEIN5053	Tweezers for SMT, 110mm, stainless, ACID resist	16.67
BERNSTEIN5054	Tweezers for SMT, 120mm, stainless, ACID resist	16.67
BERNSTEIN5055	Tweezers for SMT, 120mm	15.16
BERNSTEIN5057	Tweezers for SMT, 120mm, stainless, ACID resist	17.12
BERNSTEIN5058	Tweezers for SMT, 120mm, stainless, ACID resist	19.20
BERNSTEIN5061	Special tweezers for SMT115mm, stainless, ACIDres.	13.14
BERNSTEIN5062	Special tweezers for SMT115mm, stainless, ACIDres.	15.35
BERNSTEIN5071	Special tweezers for SMT, 85mm, stainless, ACIDres.	12.76
BERNSTEIN5075	Special tweezers for SMT135mm, stainless, ACIDres.	28.23
BERNSTEIN5190	6-piece set ESD/EGB tweezers	118.24
BERNSTEIN5030	3-piece set tweezers form titan	78.38
BERNSTEIN5050	6-piece set tweezers for SMT	99.67
BERNSTEIN5210	Needle file set, 6 pcs	17.24
BERNSTEIN5240	Needle file set, 6 pcs	10.37
BERNSTEIN5261	Contact file	1.10
BERNSTEIN5301	Special scissors, 110mm	12.38
BERNSTEIN5306	Universal cutting shears, 180mm	12.18
BERNSTEIN5308	Telephone and cable shears, 125mm	8.68
BERNSTEIN5307	Ribbon cable cutter, 220mm	68.44
BERNSTEIN5309	Cable stripping shears, 190mm	26.03
BERNSTEIN5304	Combination cutters, 190mm	17.86
BERNSTEIN5511	Pocket knife	8.93
BERNSTEIN5515	Universal blade knife	0.97
BERNSTEIN5516	Set of blades (10 pieces) for 5-515	2.02
BERNSTEIN50605	Universal stripping tool	12.89
BERNSTEIN5531	Automatic wire stripper Super	21.30

Wrenches BERNSTEIN

1+

BERNSTEIN6661	TORX-screwdriver T5	6.38
BERNSTEIN6663	TORX-screwdriver T7	5.94
BERNSTEIN6660	6-piece TORX-screwdriver-set	46.55
BERNSTEIN6634	Wrench key 1.5mm, conductive material	6.13
BERNSTEIN6635	Wrench key 2.0mm, conductive material	5.87
BERNSTEIN6630	6-piece wrench key set	44.02
BERNSTEIN6621	Socket wrenches 5.5mm, conductive material 90mm	7.58
BERNSTEIN6610	6-piece socket wrenches set	52.17
BERNSTEIN6104	Socket wrenches, long, with handle 5.0mm, 140mm	7.92
BERNSTEIN6105	Socket wrenches, long, with handle 5.5mm, 140mm	7.92
BERNSTEIN6107	Socket wrenches, long, with handle 7.0mm, 140mm	8.63
BERNSTEIN6108	Socket wrenches, long, with handle 8.0mm, 140mm	8.63
BERNSTEIN6150	8-piece socket wrenches set	52.24
BERNSTEIN6440	7-piece torx-bit-box set	27.48
BERNSTEIN6812	Wrench key, 1.0mm	1.20
BERNSTEIN6825	Wrench key, 7.0mm	1.18
BERNSTEIN6820	8-piece wrech key set	4.42
BERNSTEIN6880	8-piece wrech key set (imperial dimensions)	4.84
BERNSTEIN6964	TORX-screwdriver T9	7.46
BERNSTEIN6965	TORX-screwdriver T10	7.65
BERNSTEIN6971	TORX-screwdriver T30	10.44
BERNSTEIN7102	Engineer's hammer 100g.	3.71
BERNSTEIN7104	Engineer's hammer 200g.	4.61
BERNSTEIN7112	Engineer's hammer 100g. to DIN 1041	15.14
BERNSTEIN7121	Plastic hammer 100g.	6.02
BERNSTEIN7122	Plastic hammer 200g.	7.57
BERNSTEIN7123	Plastic hammer 300g.	10.32
BERNSTEIN7281	Centre-punch to DIN 7250	5.38
BERNSTEIN7421	ESD/EGB conductive brush round ϕ 6mm	15.41
BERNSTEIN7422	ESD/EGB conductive brush flat 20mm	19.83
BERNSTEIN7435	Oiler	16.93
BERNSTEIN7505	Tape measure 1 m.	4.34
BERNSTEIN7515	Feeler gauge 0.10-2.0mm.	11.90
BERNSTEIN7521	Scriber	3.96
BERNSTEIN7523	Square for mechanics 150x100mm.	17.43
BERNSTEIN7615	Pocket hack saw "Puk"	5.52
BERNSTEIN7617	Hack saw blade for 7-615	0.52

Special equipment BERNSTEIN

1+

BERNSTEIN9101	Magnifying lamp with bracket (table) standard	319.65
BERNSTEIN9105	Magnifying lamp with adjustable bracket	344.80
BERNSTEIN9107	Additional lens 4 diopter, magnification 1: 2 3/4	107.58
BERNSTEIN9108	Additional lens 8 diopter, magnification 1: 3 3/4	107.58
BERNSTEIN9109	Fluorescent ring lamp 22W, white	19.54

TOOLS BERNSTEIN

BERNSTEIN



BERNSTEIN

Special equipment BERNSTEIN		1+			
BERNSTEIN9251	Universal clamp mounting ball joint base	106.49			
BERNSTEIN9252	Screw- on mounting vice	86.75			
BERNSTEIN9361	ESD - handling set	127.21			
BERNSTEIN9335	Grid mat conductive 625x375x20mm	109.29			
BERNSTEIN9323/10	SMD box 41x37x15mm 10 pieces	18.89			
BERNSTEIN9320	Cabinet for SMD boxes	63.05			
BERNSTEIN9133	Fluorescent lamp with bracket	252.91			
BERNSTEIN8135	ERSA soldering iron 15W, 220V	36.25			
BERNSTEIN8143	Tip for ERSa / BERNSTEIN8135 soldering iron	4.48			
HU/PHU CRIMP TOOL	Crimping Tool for HU/PHU	18.36			
YAC-4	Crimping Tool	29.72			
Lead forming equipment OLAMEF		1+			
OLAMEF 20.OL01	TP6 man.cutting,bending machine for axial comp.	☞			
OLAMEF 30.OL11	TP6/R11 man.cutting taped comp.P=12.7	☞			
OLAMEF 40.OL05	TP6/PR-B cutting,bending,forming axial comp.	☞			
OLAMEF 100.0002	SEP1M - motorized PCB separator machine	☞			
OLAMEF 74.OL22	TP/TC4 cuttingmach for loose, taped,stickd comp.	☞			
OLAMEF 8301.072	COUNTY element counter	☞			
OLAMEF 8301.018	SMD County adapter	☞			
OLAMEF 8301.023	Complete support for rolled bandolier	☞			
OLAMEF 8301.025	Bandolier handle	☞			
OLAMEF 8301.028	New SMD reel support	☞			
OLAMEF 8301.030	Handle for new SMD reel support	☞			
SMT technological equipment - DIMA SMT SYSTEMS		1+			
DIMA FP-500	complete Finline pick&place	☞			
DIMA FP-600	finline pick&place, dispense	☞			
DIMA FA-1000	motor drive with foot pedal	☞			
DIMA FA-1100	color camera+monitor stand	☞			
DIMA FT-0807	tape feeder 8mm 7"reel	☞			
DIMA FT-0814	tape feeder 8mm 14"reel	☞			
DIMA FT-1207	tape feeder 12mm 7"reel	☞			
DIMA FT-1214	tape feeder 12mm 14"reel	☞			
DIMA FT-1607	tape feeder 16mm 7"reel	☞			
DIMA FS-0100	stick feeder SO 6,2/15,2 mm	☞			
DIMA FS-2800	stick feeder PLCC-28	☞			
DIMA FS-4400	stick feeder PLCC-44	☞			
DIMA FS-6800	stick feeder PLCC-68	☞			
DIMA FB-200	base plate for 20 feeders 20mm	☞			
DIMA FL-200	light guided PCB holder	☞			
DIMA FL-2200	ledbar with 20LED's for FL-200	☞			
DIMA FL-2400	carousel motor drive with LED's	☞			
DIMA SP-200	manual printer 250x350mm	☞			
DIMA SP-2500	stencil frame 250x350mm	☞			
DIMA DO-1500	foot pedal	☞			
DIMA DO-2000	barrel holder	☞			
DIMA RO-402	reflow oven Zepher	☞			
DIMA RO-403	reflow oven Breeze leadfree	☞			
DIMA RO-4010	plateau for end of oven 400 mm	☞			
Accessories for dispensers VIP		1-4	5-9	10-19	20+
VIPE011011	steel tip 0.15 mm GA30, lavender colour	0.31	0.28	0.27	0.25
VIPE011081	steel tip 0.51 mm GA21, 1/2"long	0.68	0.63	0.59	0.56
VIPE011091	steel tip 0.58 mm GA20, 1/2"long	0.68	0.63	0.59	0.56
VIPE012101	steel tip 0.69 mm GA19, 1" long	0.73	0.67	0.64	0.60
VIPE012111	steel tip 0.84 mm GA18, 1" long	0.73	0.67	0.64	0.60
VIPE012131	steel tip 1.19 mm GA16, 1" long	0.73	0.67	0.64	0.60
VIPE012141	steel tip 1.32 mm GA15, 1" long	0.73	0.67	0.64	0.60
VIPE012151	steel tip 1.6 mm GA14, 1" long	0.73	0.67	0.64	0.60
VIPA014051	barrel 10 cc	0.58	0.53	0.50	0.47
VIPA016051	barrel 30 cc	0.95	0.88	0.83	0.78
VIPA644000	barrel cup 10 cc	0.17	0.16	0.15	0.14
VIPA646000	barrel cup 30 cc	0.24	0.22	0.21	0.20
VIPA600031	barrel cap for 10-55cc	0.17	0.15	0.15	0.14
VIPE415151	tapered tip,GA14,1.6 mm	0.38	0.35	0.33	0.31
VIPE415131	tapered tip,GA16,1.19 mm	0.38	0.35	0.33	0.31
VIPE415041	tapered tip,GA25,0.25 mm, red	0.34	0.32	0.30	0.28
VIPE415111	tapered tip,GA18,0.84 mm	0.38	0.35	0.33	0.31
VIPE415091	tapered tip,GA20,0.58 mm	0.38	0.35	0.33	0.31
VIPE415071	tapered tip,GA22, 0.41mm	0.38	0.35	0.33	0.31
VIPAS14401	piston 10 cc	0.47	0.43	0.41	0.39
VIPAS16401	piston 30 cc	0.55	0.51	0.48	0.45



Sony Manufacturing Systems Corporation

Sony SI-V200



NEW

Sony SI-P350



NEW

Sony SI-G200



NEW

Sony SI-F209

Compact-sized Fine-pitch Electronic Part Mouter

- ◆ Accuracy of 40 μ m at 4 σ (VQFP 48Pin);
- ◆ Speed: **7 350 CPH**;
- ◆ Max. 40 front feeders, 2x40 trays in the rear.



Sony SI-F130

Compact-sized Electronic Part Mouter

- ◆ Accuracy of 50 μ m at 4 σ (0603);
- ◆ Speed: **25 900 CPH**;
- ◆ Max. 40 feeders in the front & 40 feeders in the rear.



Sony SI-1C1500



PWB Visual Inspection
Machine

Equipped with High
Resolution Color CCD Camera
Resolution 15.5 or 22.0 $\mu\text{m}/\text{pixel}$

Sony TechnoLOOK

Video microscopes
TW-TL1V and TW-TL10V
High performance CCD camera
Power LED Illumination
Optional 7" TFT Display
Can be connected to standard PC



Sony CAST-PROII

Versatile desktop robot

3-axis and 4-axis models available

Sony SI-C500

PWB Visual Inspection Machine

Equipped with High Resolution
Monochrome CCD Camera
Resolution 19.0 $\mu\text{m}/\text{pixel}$



Sony Manufacturing Systems Corporation

Soldering materials INTERFLUX

		1+	10+
IF8001FLUXPEN	FluxPen cont. flux IF8001	32.24	☞
IFSTNCLN	Stencil Clean pre-saturated wipes	19.21	☞
IFSTNCLN_REFILL	Stencil Clean pre-saturated wipes (refill 100pcs)	17.01	☞
IFADHREM	Adhesive Remover pre-saturated wipes	20.31	☞
IFADHREM_REFILL	Adhesive Remover pre-saturated wipes (refill 100pcs)	18.11	☞
IF TABLE CLEAN WIPES	Table Clean pre-saturated wipes	21.55	☞
IFISC8020 Stencil Clean 10L	Stencil Cleaning Fluid, alcohol based	83.17	☞
IF710	Peelable soldermask 225g tubes	11.92	☞
IF711	Peelable soldermask 250g tubes	11.92	☞
IFGLASSPLATE	Glassplate for solder wave adjustment	204.34	☞
IF8001FLUX	Flux,low-residue,synthetic, for repair 1 liter	36.30	☞
IF8001FLUX 0.5L	Flux,low-residue,synthetic, for repair 0.5 liter	18.56	☞
IF8300BGA10	Flux paste,no-clean,low-res.,10cc	21.61	☞
IF8300BGA30	Flux paste,no-clean,low-res.,30cc	23.25	☞
IF Purgel 30cc Syringe	Dispense valve cleaner/conditioner	25.60	☞
IF910	De-Oxidation Oil 1l	27.21	☞
IFANTIOX250	Anti-Oxidant Pellets 250g flacons	38.27	☞
IFANTIOX250 Lead-free	Anti-Oxidant Pellets 250g for Lead-free	50.52	☞
IF2009MLF 10L	LF Flux,no-clean,VOC free,water based,3.7%solids	123.76	☞
IFIC2010F25L	Flux,no-clean,VOC free,water based,25l	278.47	☞
IF2005C10L	No-res flux,alcoh.based,100-130°C,10l	148.47	☞
IF2005M25L	No-res flux,alcoh.based,100-130°C,25l	371.17	☞
IF2005M10L	No-res flux,alcoh.based,100-130°C,10l	148.47	☞
IFT2005M10L	Thinner,100-130°C,10l	123.76	☞
IFT2005M25L	Thinner,100-130°C,25l	309.41	☞
IFTS1810L	No-clean flux,alcoh.based,1.8%,70-120°C	112.75	☞
IFTS3310L	No-clean flux,alcoh.based,3.3%,70-120°C	92.93	☞
IFT1000	Thinner,70-120°C,10l	66.42	☞
IF9009LTK 0.5kg	Sn62Pb36Ag2;25-45um;179°C;89.5%metal	52.85	☞
IF9009LTKS 10CC	Sn62Pb36Ag2;25-45um;179°C;84%metal,10cc	15.97	☞
IFDelphine5503 405 10cc	Sn95.5Ag4Cu0.5; 25-45um;217°C;84%metal,10cc	19.83	☞
IFDelphine5503 305 10cc	Sn96.5Ag3Cu0.5; 25-45um;217°C;84%metal,10cc	19.43	☞
IFDelphine5504 305 10cc	Sn96.5Ag3Cu0.5; 25-45um;217°C;84%metal,10cc	20.59	☞
IF9009LTKS 30CC	Sn62Pb36Ag2;25-45um;179°C;84%metal,30cc	25.32	☞
IFDELPHINE5502 SAC405 LF	0.5kg Sn95.5Ag4Cu0.5;25-45um;217°C;88%metal	73.08	☞
IFDELPHINE5503 SAC405 LF	0.5kg Sn95.5Ag4Cu0.5;25-45um;217°C;88%metal	73.08	☞
IFDELPHINE5503 SAC305 LF	0.5kg Sn96.5Ag3Cu0.5;25-45um;217°C;88%metal	71.66	☞
IFDELPHINE5504 SAC305 LF	0.5kg Sn96.5Ag3Cu0.5;25-45um;217°C;88%metal	71.66	☞
IFDELPHINE5503 305 0.25LF	0.25kg Sn96.5Ag3Cu0.5;25-45um;217°C;88%metal	35.83	☞
IFNX9900IK 0,5kg	Sn62Pb36Ag2;25-45um;90%metal	58.66	☞
IFWSP2006 SnPbAg 0,5kg	Sn62Pb36Ag2;25-45um;88%metal,water soluble	59.79	☞
IFDENSITYMETER	Density meter with temp. compensation	103.92	☞
IFGLASSHOLDER	Glassholder for densitymeter	20.22	☞

Solderwire INTERFLUX

		1-4	5-9	10-19	20+
IF14-10 0.5mm 0.5kg	Sn63Pb37,no-clean,low-res,1.0%flux,183°C	25.17	24.05	23.15	22.48
IF14-10 0.7mm 0.5kg	Sn63Pb37,no-clean,low-res,1.0%flux,183°C	23.59	22.54	21.70	21.06
IF14-10 1.0mm 0.5kg	Sn63Pb37,no-clean,low-res,1.0%flux,183°C	23.52	22.47	21.63	21.00
IF14-10 1.5mm 0.5kg	Sn63Pb37,no-clean,low-res,1.0%flux,183°C	22.60	21.59	20.78	20.18
IF14-06 1.0mm 0.5kg	Sn63Pb37,no-clean,no-res,0.6%flux,183°C	23.62	22.57	21.73	21.09
IF14-06Ag2 0.5mm 0.5kg	Sn62Pb36Ag2,no-clean,n.res,0.6%fl.,188°C	42.96	41.04	39.51	38.36
IF14-09Ag2 1.0mm 0.5kg	Sn62Pb36Ag2,no-clean,l.res,0.9%fl.,188°C	21.88	20.90	20.12	19.54
IF14-09 0.35mm 0.1kg	Sn63Pb37,no-clean,low residue,0.9%flux,183°C	20.58	19.66	18.92	18.37
IFR88 0.5mm 0.5kg	Sn63Pb37,no-clean,coloph,0.88%fl.,183°C	30.50	29.14	28.05	27.23
IFR88 0.7mm 0.5kg	Sn63Pb37,no-clean,coloph,0.88%fl.,183°C	26.29	25.11	24.18	23.47
IFR88 1.0mm 0.5kg	Sn63Pb37,no-clean,coloph,0.88%fl.,183°C	23.81	22.75	21.89	21.26
IF14 Sn62Pb36Ag2 0.35mm	0.1kg Sn62Pb36Ag2 no-clean,1.4% flux,188°C	21.45	20.49	19.73	19.15
IF14 Ag2 0.5mm 0.5kg	Sn62Pb36Ag2,no-clean,1.4%flux,188°C	40.27	38.48	37.04	35.96
IF14 Ag2 0.7mm 0.5kg	Sn62Pb36Ag2,no-clean,1.4%flux,188°C	36.36	34.73	33.43	32.46
IF14 Ag2 1.0mm 0.5kg	Sn62Pb36Ag2,no-clean,1.4%flux,188°C	34.74	33.19	31.95	31.02
IF14 Ag2 1.5mm 0.5kg	Sn62Pb36Ag2,no-clean,1.4%flux,188°C	33.93	32.42	31.21	30.30
IF14 Sn5Pb93.5Ag1.5 1mm	0.5kg Sn5Pb93.5Ag1.5 1.4% flux,300°C	23.63	22.58	21.73	21.10
IF14 Sn63Pb37 0.35mm	0.1kg Sn63Pb37 no-clean,1.4% flux,183°C	21.45	20.49	19.73	19.15
IF14 Sn60Pb40 0.35mm	0.1kg Sn60Pb40 no-clean,1.4% flux,185°C	21.45	20.49	19.73	19.15
IF14 Sn60Pb40 0.5mm 0.5kg	Sn60Pb40 no-clean,1.4% flux,185°C	28.12	26.86	25.86	25.10
IF14 Sn60Pb40 0.7mm 0.5kg	Sn60Pb40 no-clean,1.4% flux,185°C	24.13	23.06	22.19	21.55
IF14 Sn60Pb40 1.0mm 0.5kg	Sn60Pb40 no-clean,1.4% flux,185°C	21.79	20.81	20.04	19.45
IF14-22Sn96.5Ag3.5 0.35mm	0.1kg Sn96.5Ag3.5 no-clean,2.2% flux,221°C	30.73	29.35	28.26	27.43
IF14 Sn99.3Cu0.7 0.5mmLF	Sn99.3Cu0.7 0.5kg, 1.6% flux, 227°C - leadfree	39.00	37.26	35.86	34.82
IF14 Sn99.3Cu0.7 0.7mmLF	Sn99.3Cu0.7 0.5kg, 1.6% flux, 227°C - leadfree	34.93	33.38	32.13	31.19
IF14 Sn99.3Cu0.7 1.0mmLF	Sn99.3Cu0.7 0.5kg, 1.6% flux, 227°C - leadfree	32.59	31.14	29.97	29.10
IF14 SnCu 0.35mm	0.1kg Sn99.3Cu0.7 no-clean,1.6% flux,227°C	30.73	29.35	28.26	27.43
IF14-22Sn99.3Cu0.7 0.7mm	Sn99.3Cu0.7 0.5kg, 2,2% flux, 227°C - leadfree	34.93	33.38	32.13	31.19
IF14 Sn96.5Ag3.5 0.5mmLF	Sn96.5Ag3.5 0.5kg, 1.6% flux, 221°C - leadfree	57.42	54.85	52.80	51.26
IF14 Sn96.5Ag3.5 0.7mmLF	Sn96.5Ag3.5 0.5kg, 1.6% flux, 221°C - leadfree	53.35	50.97	49.07	47.64
IF14 Sn96.5Ag3.5 1.0mmLF	Sn96.5Ag3.5 0.5kg, 1.6% flux, 221°C - leadfree	51.01	48.73	46.91	45.54
IF14 Sn96.5Ag3Cu0.5 0.35mm	0.1kg LF Sn96.5Ag3Cu0.5,no-clean,1.6% flux,217°C	31.28	29.89	28.77	27.93
IF14 Sn96.5Ag3Cu0.5 0.5mm	0.45kg LF Sn96.5Ag3Cu0.5,no-clean,1.6% flux,217°C	50.30	48.06	46.26	44.91



Let us gear up your production

Manufacturing machines and tools for the Electronic Industry: Pick and place, Reflow, Dispensing, Printing and Coating machines are products that DIMA successfully developed.

DIMA HYBRID HP-110

- ◆ Full vision Pick & Place machine;
- ◆ Accuracy 50μ at 3σ ;
- ◆ Speed: 4600 CPH (IPC 9850 rated);
- ◆ Fully SMEMA compatible interface;
- ◆ Intelligent feeding system;
- ◆ 80 feeders slots (8 or 12mm) - front and rear side;
- ◆ Offline version available (HP-100, 132 feeder slots max. expandable 4 sides).



DIMA HYBRID HS-100

- ◆ Semi-automatic stencil printer;
- ◆ ESI Correctplace vision system for PCB alignment;
- ◆ Print area 450x400mm;
- ◆ PCB size from 40x40mm to 520x400mm.

DIMA Hybrid Selective Conformal Coater HC-100 and HC-200

HC-100 - 3 axis controlled + tilt coating machine. Inline and offline available.

HC-200 - 4 axis controlled + tilt coating machine. Inline and offline versions available.

DIMA DD-500 Dispense Master



- ◆ Semi-automatic Desktop dispenser;
- ◆ Suitable for dispensing solder pastes, SMT adhesives, Conformal coating etc.;
- ◆ Dot speed 12,000 dots/hour, line speed 80mm/sec.

DIMA RO-500 Solano

- ◆ Reflow oven, lead-free approved. 2250mm Tunnel length;
- ◆ 5 independent controlled heating zones, internal cooling zone;
- ◆ 500mm wide mesh conveyor;
- ◆ Solano RO-510 with mesh and pin conveyor available.



DIMA RO-403 Breeze



- ◆ Reflow oven, lead-free capable;
- ◆ 8 independent controlled heating zones and 1 cooling zone with ionizer;
- ◆ 400mm wide mesh conveyor.



Let us gear up your production

Solderwire INTERFLUX		1-4	5-9	10-19	20+
IF14 Sn96.5Ag3Cu0.5 0.7mm	0.45kg LF Sn96.5Ag3Cu0.5,no-clean,1.6% flux,217°C	46.65	44.56	42.90	41.65
IF14 Sn96.5Ag3Cu0.5 1mm	0.45kg LF Sn96.5Ag3Cu0.5,no-clean,1.6% flux,217°C	44.53	42.54	40.95	39.76
IFFlexSol 903 SAC305 0.5mm	LF 0.5kg Sn96.5Ag3Cu0.5 ,2.2%rosin flux,217°C	51.22	48.93	47.10	45.73
IFFlexSol 903 SAC305 0.7mm	LF 0.5kg Sn96.5Ag3Cu0.5 ,2.2%rosin flux,217°C	49.66	47.45	45.67	44.34
IFFlexSol 903 SAC305 1.0mm	LF 0.5kg Sn96.5Ag3Cu0.5 ,2.2%rosin flux,217°C	48.11	45.96	44.24	42.96
IFFFlexSol 903 SnCu 0.5mm	LF 0.5kg Sn99.3Cu0.7 , 2.2% rosin flux,227°C	34.46	32.93	31.70	30.77
IFFFlexSol 903 SnCu 0.7mm	LF 0.5kg Sn99.3Cu0.7 , 2.2% rosin flux,227°C	32.52	31.07	29.91	29.04
IFFFlexSol 903 SnCu 1.0mm	LF 0.5kg Sn99.3Cu0.7 , 2.2% rosin flux,227°C	31.01	29.63	28.52	27.69
IFSOLDERBARS Sn96.5Ag3.5	Sn96.5Ag3.5, 1kg solderbar, 221°C - leadfree	37.08			
IFSOLDERBARS SAC305 LF	Sn96,5Ag3Cu0,5, 1kg solderbar, 217°C - leadfree	45.74			
IFSOLDERBARS	Sn63Pb37,solderbars+AB6993, 183°C	25.01			
Soldering equipment JBC - irons		1+			
JBC0192880	Heating element for 14S Iron 220V	31.81			
JBC0302885	Heating element for 30S Iron 220V	23.86			
JBC2192052	Soldering iron 14S, 230V	50.89			
JBC0290100	US1000 stand	31.81			
JBC0290110	LS1100 stand for 14S Soldering Iron	31.81			
JBC0150805	Tip B-05D d=1mm	13.52			
JBC0150409	Tip B-10D d=1.5mm	13.52			
JBC0150508	Tip B-20D 2x1.2 mm	13.52			
JBC0150607	Tip B-40D 3x1.5 mm	13.52			
JBC0550200	Tip C-05D d=1 mm	14.31			
JBC0150900	Minispoon MS-10D	22.27			
JBC3302056	Soldering iron 25W, 30S, 230V	41.67			
JBC2020200	Soldering iron SL2020, 230V	101.79			
JBC0150300	Tip B-03D d=0.5 mm	12.88			
JBC0300707	Tip PH-12D d=1.2 mm	11.93			
JBC0390401	Tip R-05D d=1 mm	12.72			
JBC0300905	Tip R-10D d=1.5 mm	11.13			
JBC0300400	Tip B-15D d=2.2 mm	11.13			
JBC0400200	Tip B-16D d=2.3 mm	11.13			
JBC0400309	Tip B-21D d=3 mm	11.13			
JBC0400705	Tip T-10D 3x1.5 mm	10.60			
JBC0300806	Tip TL-3D d=3 mm	14.31			
JBC0400804	Tip T-05D 1.5x1 mm	14.31			
JBC0550100	Tip C-03D d=1mm angle	13.63			
JBC0300509	Tip T-20D 3x1.5 mm	11.13			
JBC0300608	Tip T-40D 4.5x1.5 mm	11.13			
JBC3652054	Soldering iron 32W, 65S, 230V	45.49			
JBC0650903	Tip R-20D d=2 mm	14.31			
JBC0650606	Tip T-25D 3x1.5 mm	14.31			
JBC0650408	Tip T-65D 6x2 mm	14.31			
JBC0114108	Tip inserter/extractor clip	44.53			
JBC0502020	Soldering iron 70W 230V 50 S LD	114.51			
JBC0500405	50D long- life tip	13.36			
JBC0802020	Soldering iron 95W 230V 80 S LD	125.64			
JBC0800409	80D long- life tip	14.79			
JBC0182020	Soldering iron 150W 230V 150 S LD	147.43			
JBC0180420	150D long- life tip	26.24			
JBC0187300	SS 7300 stand	104.97			
JBC0119107	Desoldering pump	63.62			
JBC0119560	Replacement nozzele d=2.4 mm	4.93			
Soldering equipment JBC - stations		1+			
JBC2860200	DI2860 1 tool control unit	588.45			
JBC2860256	KIT DI2860-DR5650 desoldering station	1717.63			
JBC3000200	DI 3000 Digital control unit	620.26			
JBC3210200	IB3210 Soldering Station with 50W Soldering Iron	357.84			
JBC4300200	AD 4300 Dual control unit	787.25			
JBC5400200	TE5400 Hot Air Station with accessories	2210.65			
JBC5410200	TE5400WE Hot Air Station without accessories	1606.30			
JBC5600000	DR 5600 desoldering iron	429.41			
JBC5600001	Desoldering tip 5600-001 for AR 5600	27.04			
JBC5600002	Desoldering tip 5600-002 for AR 5600	27.04			
JBC5600003	Desoldering tip 5600-003 for AR 5600	27.04			
JBC5600004	Desoldering tip 5600-004 for AR 5600	27.04			
JBC5600005	Desoldering tip 5600-005 for AR 5600	27.04			
JBC5600006	Desoldering tip 5600-006 for DR 56xx	27.26			
JBC5600007	Desoldering tip 5600-007 for DR 56X0 d=2,5mm	27.26			
JBC5600011	Pad cleaning tip 5600-011 for DR56X0 d=0,6mm	27.26			
JBC5600012	Pad cleaning tip 5600-012 for DR56X0 d=0,8mm	27.26			
JBC5600013	Pad cleaning tip 5600-013 for DR56X0 d=1mm	27.26			
JBC5700200	DD5700 dual control unit	922.43			
JBC5700230	DD5700 KIT Soldering&Desoldering station	2425.36			
JBC5700232	DD5700 2 tools kit	1475.89			
JBC6850200	AM 6850 Rework station, leadfree	4135.04			
JBC7710200	JT7700 900W Hot Air Station without accessories	2003.90			
JBC7700200	JT7700 900W Hot Air Station with desold. accessories	2655.97			

JBC



AL 2500



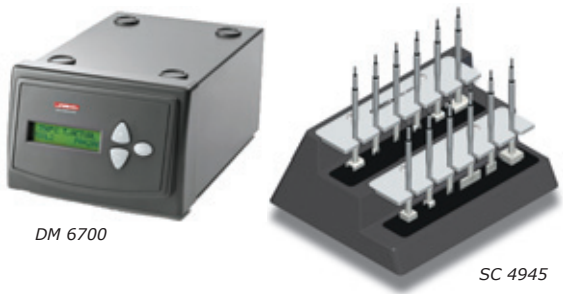
TE 5400



JT 7750



DD 5700

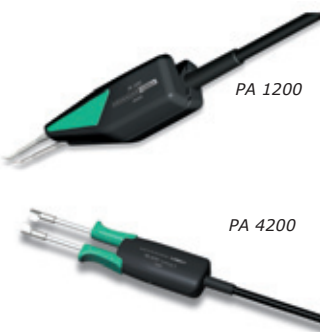


DM 6700

SC 4945



HD 4700



PA 1200

PA 4200



AP 1300



AM 6850

Soldering equipment JBC - stations

1+

JBC6700230	DM6700 4 Tools kit	3471.84
JBC9001000	MS 9001 monitor	954.24
JBC9002200	MS 9002 power supply	715.68
JBC9003000	MS 9003 stands block	1749.44
JBC9004000	MS 9004 desoldering pump	477.12
JBC0788930	MS 8930 stand submodul for 2210 soldering iron	119.28
JBC0788950	MS 8950 stand submodul for 2245 soldering iron	119.28
JBC0788970	MS 8970 stand submodul for AP1300 sold.feed iron	119.28
JBC0788910	MS 8910 stand submodul for PA1200 tweezers	119.28
JBC0788940	MS 8940 stand submodul for PA4200 tweezers	119.28
JBC0788960	MS 8960 stand submodul for DR5600 desold.iron	119.28
JBC0788990	SE8990 Sponge Stand	119.28
JBC2210000	AD 2210 Handpiece 25 W	92.24
JBC2210001	Cartridge 2210-001	41.35
JBC2210002	Cartridge 2210-002	41.35
JBC2210003	Cartridge 2210-003	41.35
JBC2210004	Cartridge 2210-004	41.35
JBC2210006	Cartridge 2210-006	41.35
JBC2210007	Cartridge 2210-007	41.35
JBC2210008	Cartridge 2210-008	41.35
JBC2210009	Cartridge 2210-009	41.35
JBC2210013	Cartridge 2210-013 d=0.5mm	44.53
JBC2245000	AD 2245 Handpiece 45 W	97.01
JBC2245110	2245110 Comfort hand pieces 45 W	103.38
JBC0788211	AD 8211 Stand for 2210 handpieces	166.99
JBC0788245	AD 8245 Stand for 2245 handpieces	135.18
JBC2245001	Cartridge 2245-001	37.87
JBC2245003	Cartridge 2245-003	30.29
JBC2245004	Cartridge 2245-004	42.94
JBC2245006	Cartridge 2245-006	31.81
JBC2245007	Cartridge 2245-007	39.76
JBC2245008	Cartridge 2245-008	39.76
JBC2245009	Cartridge 2245-009	55.66
JBC2245010	Cartridge 2245-010	55.66
JBC2245011	Cartridge 2245-011	39.38
JBC2245016	Cartridge 2245-016	55.66
JBC2245017	Cartridge 2245-017	55.66
JBC2245018	Cartridge 2245-018	55.66
JBC2245019	Cartridge 2245-019	55.66
JBC2245029	Cartridge 2245-029	42.94
JBC2245030	Cartridge 2245-030	42.94
JBC2245031	Cartridge 2245-031	55.66
JBC2245032	Cartridge 2245-032	37.87
JBC2245035	Cartridge 2245-035	42.94
JBC2245036	Cartridge 2245-036	42.94
JBC2245037	Cartridge 2245-037	36.58
JBC2245039	Cartridge 2245-039	55.66
JBC2245043	Cartridge 2245-043	39.76
JBC2245057	Cartridge 2245-057 d=0.6mm	42.94
JBC2245065	Cartridge 2245-065 minispoon 1.8mm	53.01
JBC2245013 / 2245213	Cartridge 2245-013 / 2245-213	63.62
JBC2245014 / 2245214	Cartridge 2245-014 / 2245-214	63.62
JBC2245015 / 2245215	Cartridge 2245-015 / 2245-215	63.62
JBC2245020 / 2245220	Cartridge 2245-020 / 2245-220	63.62
JBC2245021 / 2245221	Cartridge 2245-021 / 2245-221	63.62
JBC2245022 / 2245222	Cartridge 2245-022 / 2245-222	63.62
JBC2245023 / 2245223	Cartridge 2245-023 / 2245-223	63.62
JBC2245024 / 2245224	Cartridge 2245-024 / 2245-224	63.62
JBC2245027 / 2245227	Cartridge 2245-027 / 2245-227	63.62
JBC2245028 / 2245228	Cartridge 2245-028 / 2245-228	63.62
JBC2245901	Cartridge 2245-901 d=0.8mm	46.96
JBC2245903	Cartridge 2245-903	49.30
JBC2245906	Cartridge 2245-906	49.30
JBC2245907	Cartridge 2245-907	49.30
JBC2245930	Cartridge 2245-930	49.30
JBC2245932	Cartridge 2245-932 d=0,6mm LF	46.96
JBC2245935	Cartridge 2245-935 d=0,8mm angle LF	48.47
JBC2245938	Cartridge 2245-938 minispoon 3.8mm	60.59
JBC2245939	Cartridge 2245-939 bevel edge tip 0.2x6mm	63.62
JBC2245944	Cartridge 2245-944	49.30
JBC2245957	Cartridge 2245-957 d=0,8mm lead-free	50.89
JBC1300000	AP 1300 solder feed iron	151.09
JBC1300402	Cartridge for AP1300 d=0.8mm LF	43.93
JBC1300404	Cartridge for AP1300 1.2x0.7mm LF	43.93
JBC1300403	Cartridge for AP1300 d=1.2mm LF	43.93
JBC0552315	Reel with 50g. 1mm 60/40 solder for AP1300	7.95
JBC0788130	AP 8130 Stand for AP 1300 solder feed iron	135.18
JBC2245204	Cartridge 2245-204	47.71
JBC1200000	PA 1200 Micro hot tweezers	154.27
JBC0748110	PA 8110 Stand for PA 1200 tweezers	135.18
JBC0788111	PA 8111 Stand for PA 1200 tweezers	166.99
JBC1200001	Cartridge 1200-001 for PA 1200 tweezers	52.48

Soldering equipment JBC - stations

1+

JBC1200002	Cartridge 1200-002 for PA 1200 tweezers	49.98
JBC1200003	Cartridge 1200-003 for PA 1200 tweezers	52.48
JBC1200004	Cartridge 1200-004 for PA 1200 tweezers	49.98
JBC1200005	Cartridge 1200-005 for PA 1200 tweezers	49.98
JBC1200006	Cartridge 1200-006 0.5x3mm for PA 1200 tweezers	49.98
JBC1200902	Cartridge for PA 1200 tweezers	57.56
JBC1200906	Cartridge for PA 1200 tweezers	57.56
JBC4200000	PA 4200 Hot tweezers	141.55
JBC0748120	PA 8120 Stand for PA 4200 tweezers	135.18
JBC2245271	Cartridge 2245-271 for PA 4200 tweezers	60.44
JBC2245272	Cartridge 2245-272 for PA 4200 tweezers	60.44
JBC2245273	Cartridge 2245-273 for PA 4200 tweezers	68.39
JBC2245274	Cartridge 2245-274 for PA 4200 tweezers	68.39
JBC2245275	Cartridge 2245-275 for PA 4200 tweezers L=8mm	65.13
JBC2245276	Cartridge 2245-276 for PA 4200 tweezers L=10mm	65.13
JBC2245277	Cartridge 2245-277 for PA 4200 tweezers	68.39
JBC2245278	Cartridge 2245-278 for PA 4200 tweezers	68.39
JBC2245279	Cartridge 2245-279 for PA 4200 tweezers	71.57
JBC2245280	Cartridge 2245-280 for PA 4200 tweezers	71.57
JBC2245281	Cartridge 2245-281 for PA 4200 tweezers	68.39
JBC2245282	Cartridge 2245-282 for PA 4200 tweezers	68.39
JBC0490100	SC4945 Cartridge stand	198.80
JBC9400000	TT 9400 tip cleaner	9.54
JBC9900000	TT 9900 tip cleaner	11.13
JBC2600000	AC 2600 Console	365.79
JBC2800000	TI 2800 Thermometer	397.60
JBC2800010	Sensor thermometer	55.66
JBC0780413 / 0001069	Sponge for the stand of the AD 2200 / 2700 station	1.75
JBC0780415	Sponge for the AD8220,DR8500,PA8120 stands	1.75
JBC0780612	Sponge for the MS8990 stand	3.98
JBC0780840	Filter 0780840 for desoldering iron DR 5600	4.79
JBC0786620	Filter 0786620	8.30
JBC0861540	Spare parts nozzle d=0.8 angle for MP 2260	4.77
JBC0861560	Spare parts nozzle d=0.9 angle for MP 2260	4.77
JBC0861580	Spare parts nozzle d=1.2 angle for MP 2260	4.77
JBC0901512	Spare parts nozzle d=0.7 for MP 2260	4.29
JBC0901520	Spare parts nozzle d=0.9 for MP 2260	4.29
JBC0901538	Spare parts nozzle d=1.2 for MP 2260	4.29
JBC0930110	set of 4 suction cups for extractor	6.74
JBC0965970	set of tools	29.01

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ELME 157-G ESD BENCHMAT	ESD benchmat roll 1.2x10m, grey colour, 2mm thick	865.67
ELME 157-B ESD BENCHMAT	ESD benchmat roll 1.2x10m, beige colour, 2mm thick	865.67
ELME ESD 157/4060B KIT	ESD kit: bench mat+ wire+ one touch band wrist	54.48
ELME ESD 157/6090G KIT	ESD kit: bench mat+ wire+ one touch band wrist	83.50
ELME ESD 157+749 DUO KIT	ESD benching and flooring kit	304.37
ELME WIRE BOTTONE 10-RING	Ground cord bottone 10mm-ring, 3m length, 1MOhm	10.69
ELME ESD GND CPG 1010	Earth bonding point with 1Mohm resistor	20.04
ELME ESD GND CPG 2000	Earth bonding point with 1Mohm resistor	56.14
ELME ESD GND CPG 3000	Earth bonding point with 1Mohm resistor	39.92
ELME ESD ONE TOUCH BAND/4	One touch wrist band antiallergic for EPA 4mm snap	7.99
ELME ESD ONE TOUCH BAND10	One touch wrist band antiallergic for EPA 10mm snap	7.99
ELME ESD STRAPPO/4	Strapto wrist band antiallergic for EPA 4mm snap	4.54
ELME WIRE BANANA 15-4	Wrist band ground cord banana 4mm, 1.5m length	5.54
ELME WIRE BOTTONE 15-4	Wrist band ground cord bottone 10mm, 1.5m length	5.80
ELME WIRE BOTTONE 15-10	Wrist band ground cord bottone 10mm-10mm, 1.5m length	5.80
ELME ESD 2000 BLACK SET	2000 black set with metal wrist band	38.65
ELME CLEAN COVERSHOE-2	ESD covershoes, washable	1.65
ELME ZAD 9000-B ESD SHOES	ESD Shoes	91.99
ELME FOOT GND STV-U/R2	Man heelgrinder with 2Mohm resistor	10.03
ELME FOOT GND STV-D/R2	Woman heelgrinder with 2Mohm resistor	9.93
ELME ESD PEQ 901	ESD PEQ for woman	48.63
ELME PEQ 905/W - L	ESD man white short coat, size L, man shape	47.03
ELME PEQ 905/W - XL	ESD man white short coat, size XL, man shape	47.03
ELME PEQ 905/W - XXL	ESD man white short coat, size XXL, man shape	47.03
ELME PEQ 909/W - L	ESD man white long coat, size L, man shape	48.21
ELME PEQ 909/W - XL	ESD white long coat, size XL, man shape	48.21
ELME PEQ 909/B - XL	ESD blue long coat, size XL, man shape	49.38
ELME PEQ 909/B - XXL	ESD blue long coat, size XXL, man shape	49.38
ELME GNC 9003/S	ESD gloves size S	8.32
ELME GNC 9003/M	ESD gloves size M	8.32
ELME GNC 9003/L	ESD gloves size L	8.32
ELME GNC RUBBER/S	ESD gloves size S	8.57
ELME GNC RUBBER/M	ESD gloves size M	8.57
ELME GNC RUBBER/L	ESD gloves size L	8.57
ELME GNK-ESD-DOT/S	ESD gloves size S	6.05
ELME GNK-ESD-DOT/M	ESD gloves size M	6.05
ELME GNK-ESD-DOT/L	ESD gloves size L	6.05
ELME ESD COTTON GLOVES	ESD cotton gloves	2.13
ELME CIC-36 ESD DRAWER	ESD drawer 307x420x146mm with 36 drawers	234.11

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ELME CIC-36/DIV	<i>set of 48 dividers size 35x64mm for CIC-36 drawers</i>	23.51
ELME ESD CHAIR VERA K1-P	<i>ESD chair VERA K1-P</i>	273.19
ELME ESD CHAIR CLEAN K2-R	<i>ESD chair CLEAN K2-R</i>	337.79
ELME ESD SIT COVER SET	<i>ESD seat cover set for chair</i>	65.52
ELME WARN. SIGN EAL-1025	<i>ESD warning label 100/250mm, pack of 4pcs.</i>	23.94
ELME WARN. SIGN EAL-3060	<i>ESD warning sign 300/600mm, engl. language</i>	37.30
ELME FLUXPEN	<i>Fluxpen</i>	8.37
ELME BONPEN 102	<i>Fluxpen</i>	18.28
ELME FLUXBOTTLE	<i>Fluxbottle</i>	14.97
ELME FLUXTIP SCREWDRIVER	<i>Fluxtip, screwdriver type</i>	2.22
ELME EMR MINI MIRRORS SET	<i>EMR vision set ESD, handle+3 probes+ glasswipe</i>	137.24
ELME VAMPIRE CLASSIC SET	<i>Vacuum pick up "VAMPIRE" for SMD devices</i>	41.17
ELME VYPER DESOLD.PUMP	<i>Desoldering pump "Viper" ESD</i>	8.82
ELME MINI DESOLD.PUMP	<i>Desoldering pump "MINI"</i>	7.63
ELME ZIPP-ZAPP TOOL	<i>Opening IC-tubes tool "ZIPP-ZAPP"</i>	11.60
ELME CW 20-16 WICK	<i>Desolder copper wick 2mm/1.6m</i>	3.68
ELME ESD EB30 BRUSH	<i>ESD cond. abrasive brush EB30</i>	9.48
ELME EB PRO ESD BRUSH	<i>ESD cond. abrasive brush EB PRO</i>	34.93
ELME ESD 749/B Cu tape	<i>ESD grounding copper tape for mats 10mm x 16.5m</i>	50.40
ELME ESD LABEL EAL-3232	<i>self adhesive ESD floor label diam 32mm</i>	19.89
ELME ESD REA EPA50 Tape	<i>ESD marking tape 50mm X 33m</i>	23.12
ELME ESD LABEL EAS-0205	<i>ESD warning labels 20/50mm, roll of 1000pcs.</i>	96.70
ELME ESD LABEL EAS-0408	<i>ESD warning labels 40/80mm, roll of 1000pcs.</i>	99.24
ELME SHIELD BAG SM-1525	<i>Static shielding bag 152x250mm</i>	0.22
ELME SHIELD BAG SM-2530	<i>Static shielding bag 250x300mm</i>	0.39
ELME SHIELD BAG SM-3040	<i>Static shielding bag 300x400mm</i>	0.52
ELME SHIELD BAG SM-4560	<i>Static shielding bag 450x610mm</i>	1.08
ELME SHIELD BAG SMZ-1520	<i>Static shielding bag with zip150x200mm</i>	0.49
ELME PINK A/S BAG SA-1520	<i>Antistatic bag 150x200mm, pink</i>	0.12
ELME PINK A/S BAG SA-1015	<i>Antistatic bag 100x150mm, pink</i>	0.04
ELME PINK A/S BAG SA-1525	<i>Antistatic bag 150x200mm, pink</i>	0.10
ELME PINK A/S BAG SA-2530	<i>Antistatic bag 250x300mm, pink</i>	0.18
ELME PINK A/S BAG SA-2535	<i>Antistatic bag 250x350mm, pink</i>	0.21
ELME PINK A/S BAG SA-3040	<i>Antistatic bag 300x400mm, pink</i>	0.27
ELME PINK A/S BAG SA-5066	<i>Antistatic bag 500x660mm, pink</i>	0.58
ELME PLAC 9000	<i>Antistatic bubble film- roll 1.25x200m</i>	1.96
ELME FE-AS30 Stretch Foil	<i>Antistatic strtch foil 0.5x300m roll</i>	87.12
ELME ESD WALL TESTER	<i>ESD shoes & wristband wall mount tester</i>	353.96
ELME MAT SNAP 604/F10	<i>10mm female snap for grounding ESD mats</i>	0.49
ELME MAT SNAP 604/M10	<i>10mm male snap for grounding ESD mats</i>	0.49
ELME ZAD 9000 size 36	<i>ESD clogs, white colour, size 36</i>	50.19
ELME ZAD 9000 size 37	<i>ESD clogs, white colour, size 37</i>	50.19
ELME ZAD 9000 size 38	<i>ESD clogs, white colour, size 38</i>	50.19
ELME ZAD 9000 size 39	<i>ESD clogs, white colour, size 39</i>	50.19
ELME ZAD 9000 size 40	<i>ESD clogs, white colour, size 40</i>	50.19
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ELME ZAD 9000 size 42	<i>ESD clogs, white colour, size 42</i>	50.19
ELME ZAD 9000 size 43	<i>ESD clogs, white colour, size 43</i>	50.19
ELME ZAD 9000 size 44	<i>ESD clogs, white colour, size 44</i>	50.19
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