

KangTai Profile

Shenzhen Kangtai Songlong Electronic Technology Co.,Ltd. was established in 2011.The company originated in Kangtai,Taiwanin (1981) and the history more than 40 years. It focuses on research, development, production, and sales of components for overvoltage and overcurrent protection.

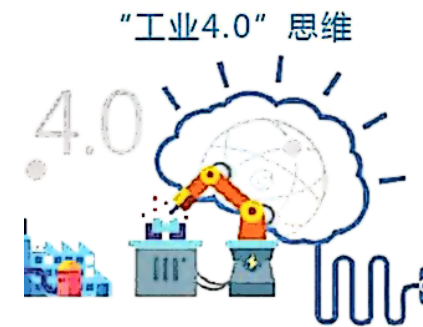
Our company has dozens of patents, maste formulas for chip cores, and three packaging techniques :semiconductor packaging, lamination, and plug-in.Our products are exported to Korea, Japan, Southeast Asia, the United States, India, Europe, and other countries.

In order to avoid the risk of damage to the product caused by high voltage during circuit operation, Kangtai introduced a series of overvoltage protection products.The products can be applied to various sources of energy, household appliances, controllers , lighting fixtures, communication , automobiles, security, signals, etc.

Kangtai's products have certainreputation in the industry, and our advanced manufacturing technology can provide te chnical solutions and services for more customers.

Automotive applications are designed specifically for harsh working environments and offer customers avariety of optional working temperatures, in compliance with the AEC-Q requirements of the Autom otive Electronics Committee.

Kangtai provides smaller volume,chip varistors, chip thermistors, ESD series, and TVS tubes for ultrath in and miniaturized applications.



Sufficient Capacity

We are a professional factory with full range of product qualification (0201~3220) and capacity up to 1000KK/month, it is currently the largest supplier of over voltage components in Taiwan, so our price is more competitive.

Wide Application

Our products are used in various fields, including LED lighting, communications, security, and automotive etc. We can cater to voltage requirements of customers ranging from high to low, and we offer FAE technical support t o assist customers in problem-solving.

Excellent Technology

We have a professional r&d team that can develop products with the same grade and qualityas GDT, TVS, MOV and NTC, and can makeproducts according to customer requirements.

High Quality Service

We are always committed to meeting the needs of our customers and treat customers' complaints in VMI, delivery, delivery, etc., and cooperate with customers to solve problems.



Workshop



Stamping



Film Casting



Prill Tower



Welding



Appearance Sorting



Sintering Furnace



Injection Molding



Screen Printing



Test Sorting



Testand Packaging



Testand Packaging



Automatic Production Line

Contents

• Varistor

ChipVaristor ----- 5

ESD ChipVaristor ----- 13

SMD Plastic Varistor ----- 15

DIP Varistor ----- 23

• Thermistor

Chip Thermistor(NTC) ----- 29

SMD Plastic Thermistor(NTC) ----- 41

SMD Plastic Thermistor(PTC) ----- 49

DIP Thermistor(NTC) ----- 53

DIP Temerature Sensor ----- 59

DIP Thermistor(PTC) ----- 73

• Transient Voltage Suppressors

TVS(SMD/ESD/DIP) ----- 79

• Fuse

SMD Disposable Fuse ----- 80

SMD Resettable Fuse ----- 81

Three Terminal Fuse ----- 82

DIP Fuse ----- 83

• Gas DischargeTube

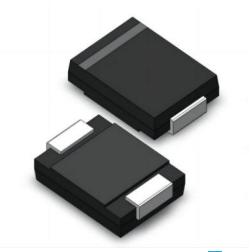
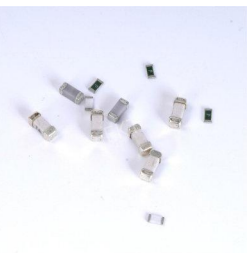
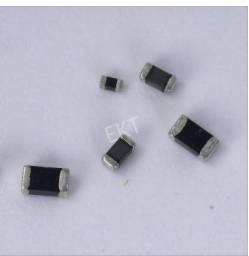
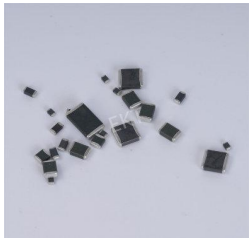
SMD GDT ----- 84

DIP GDT ----- 85

• Capacitor

SMD Multilayer Ceramic Capacitor ----- 86

SMD Plastic Safty Capacitor Y Series ----- 87



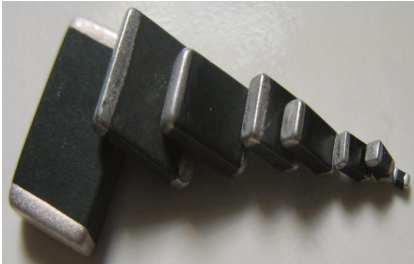
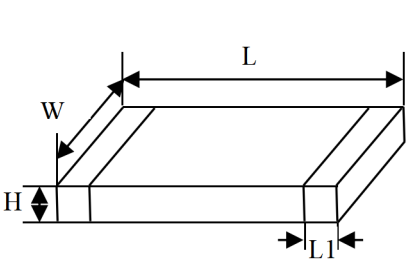
EKT Multilayer Chip Varistor

Features

- Series size from 0402 to 2220, (3220) 08CH
- Working Voltage from 2V to 560V dc
- Lowcap design (0.2pf) for fast data transmission
- Fast response time(<0.5ns)
- Low leakage current
- High surge current ability
- Suitable for ESD protection
- Bidirectional clamping,high energy
- Wide Operating temperaturer ange from-55℃-125℃ Good Temperature Coefficient

Size

Model	0402 (1005)	0603 (1608)	0805 (2012)	0806(2017)	1206 (3216)	1210 (3225)	1812 (4532)	2220 (5650)	3220(8050)
L	1.00±0.15	1.60±0.20	2.00±0.20	2.00±0.20	3.20±0.30	3.20±0.30	4.50±0.35	5.60±0.40	8.00±0.40
W	0.50±0.15	0.80±0.20	1.20±0.20	1.70±0.20	1.60±0.20	2.50±0.30	3.20±0.30	5.00±0.40	5.00±0.40
H	0.70max	0.90max	1.30max	1.80max	2.00max	2.50max	2.40max	3.50max	3.50max



High Surge Absorption Series

MVR	2220	-	8R0	G/H
Series name	Chip Size	Separate	Varistor voltage (Breakdown voltage)	G: General surge H: High surge
	0603(1608)			
	0604(1610)		8R0=8V	
	0805(2012)		270=27V	
	0806(2017)		471=470V	
	1206(3216)			
	1210(3225)			
	1812(4532)			
	2220(5750)			
	3220(8050)			
	4032(1080)			

Electrical Characteristics

0603 Size

Part Number		Working Voltage		Breakdown Voltage		Peak Current	Clamping Voltage		Surge Voltage V
		AC	DC	@ 1mA DC		8/20uS	8/20uS		
		V _{AC}	V _{DC}	VB		I _p	A	V	
0603	MVR0603-3R3G	1.4	2	3.0	2.4-3.6	20A	1	9	100V
	MVR0603-5R0G	2.4	3.3	5	4.0-6.0	20A	1	12	
	MVR0603-8R0G	4	5.5	8.0	6.6-9.9	30A	1	18	
	MVR0603-120G	7	9	12	10.2-13.8	30A	1	24	
	MVR0603-180G	11	14	18	15.3-21.7	30A	1-10	30	
	MVR0603-220G	12	16	22	19.8-24.2	30A	1-10	36	
	MVR0603-240G	14	18	24	21.6-26.4	30A	1-10	38	
	MVR0603-270G	17	22	27	24.3-29.7	30A	1-10	44	
	MVR0603-300G	18	24	30	27.2-33.0	30A	1-10	48	
	MVR0603-330G	20	26	33	29.7-36.3	30A	1-10	54	
	MVR0603-360G	22	28	36	32.7-39.6	30A	1-10	59	
	MVR0603-390G	25	30	39	35.1-42.9	30A	1-10	65	
	MVR0603-420G	26	33	42	38.1-46.2	30A	1-10	72	
	MVR0603-470G	30	38	47	42.3-51.7	30A	1-10	77	

0604 Size

Part Number		Working Voltage		Breakdown Voltage		Peak Current	Clamping Voltage		Surge Voltage V
		AC	DC	@ 1mA DC		8/20uS	8/20uS		
		V _{AC}	V _{DC}	VB		I _p	A	V	
0604	MVR0604-151G	95	125	150	136-165	30A	1-2	250	300V & 1000V
	MVR0604-241G	150	200	240	216-264	30A	1-2	395	
	MVR0604-271G	175	225	270	243-297	30A	1-2	455	
	MVR0604-431G	275	350	430	387-473	30A	1-2	710	

0805 Size

Part Number		Working Voltage		Breakdown Voltage		Peak Current	Clamping Voltage		Surge Voltage V
		AC	DC	@ 1mA DC		8/20uS	8/20uS		
		V _{AC}	V _{DC}	VB		I _p	A	V	
0805	MVR0805-3R3G	1.4	2	3.0	2.4-3.6	80A	1-10	9	300V
	MVR0805-5R0G	2.4	3.3	5	4.0-6.0	80A	1-10	12	
	MVR0805-8R0G	4	5.5	8.0	6.6-9.9	80A	1-10	18	
	MVR0805-120G	7	9	12	10.2-13.8	100A	1-10	24	
	MVR0805-180G	11	14	18	15.3-21.7	100A	1-10	30	
	MVR0805-220G	12	16	22	19.8-24.2	100A	1-10	36	
	MVR0805-240G	14	18	24	21.6-26.4	100A	1-10	38	
	MVR0805-270G	17	22	27	24.3-29.7	100A	1-10	44	
	MVR0805-300G	18	24	30	27.2-33.0	100A	1-10	48	
	MVR0805-330G	20	26	33	29.7-36.3	100A	1-10	54	
	MVR0805-360G	22	28	36	32.7-39.6	100A	1-10	59	
	MVR0805-390G	25	30	39	35.1-42.9	100A	1-10	65	
	MVR0805-420G	26	33	42	38.1-46.2	100A	1-10	72	
	MVR0805-470G	30	38	47	42.3-51.7	100A	1-10	77	
	MVR0805-560G	35	45	56	50.4-61.6	80A	1-10	90	
0805	MVR0805-121G	75	100	120	108-132	100A	1-10	200	600V & 1000V
	MVR0805-171G	110	140	170	154-187	100A	1-10	300	
	MVR0805-201G	140	180	220	198-242	100A	1-10	360	
	MVR0805-241G	150	200	240	216-264	100A	1-10	395	
	MVR0805-271G	175	225	270	243-297	100A	1-10	455	
	MVR0805-361G	230	300	360	324-396	50A	1-10	595	
	MVR0805-391G	250	320	270	351-429	50A	5-10	650	
	MVR0805-431G	275	350	430	387-473	50A	5-10	710	
	MVR0805-471G	300	385	470	423-517	50A	5-10	775	

0806 Size

Part Number		Working Voltage		Breakdown Voltage		Peak Current	Clamping Voltage		Surge Voltage V
		AC	DC	@ 1mA DC		8/20uS	8/20uS		
		V _{AC}	V _{DC}	VB		I _p	A	V	
0806	MVR0806-151G	95	125	150	136-165	200A	1-10	250	600V & 2000V
	MVR0806-241G	150	200	240	216-264	200A	1-10	395	
	MVR0806-271G	175	225	270	243-297	200A	1-10	455	
	MVR0806-431G	275	350	430	387-473	100A	1-10	710	
	MVR0806-471G	300	385	470	427-517	70A	1-10	770	
	MVR0806-511G	320	415	470	463-561	70A	1-10	845	

1206 Size

Part Number		Working Voltage		Breakdown Voltage		Peak Current	Clamping Voltage		Surge Voltage V
		AC	DC	@ 1mA DC		8/20uS	8/20uS		
		V _{AC}	V _{DC}	VB		I _p	A	V	
1206	MVR1206-5R0G	2.4	3.3	5	4.0-6.0	100A/200A	1-10	12	≥500V
	MVR1206-8R0G	4	5.5	5.5	6.6-9.9	100A/200A	1-10	18	
	MVR1206-120G	7	9	12	10.2-13.8	120A/200A	1-10	24	
	MVR1206-180G	11	14	18	15.3-21.7	120A/200A	1-10	30	
	MVR1206-220G	12	16	22	19.8-24.2	120A/200A	1-10	36	
	MVR1206-240G	14	18	24	21.6-26.4	120A/200A	1-10	38	
	MVR1206-270G	17	22	27	24.3-29.7	120A/200A	1-10	44	
	MVR1206-300G	18	24	30	27.2-33.0	120A/200A	1-10	48	
	MVR1206-330G	20	26	33	29.7-36.3	120A/200A	1-10	54	
	MVR1206-360G	22	28	36	32.7-39.6	120A/200A	1-10	59	
	MVR1206-390G	25	30	39	35.1-42.9	120A/200A	1-10	65	
	MVR1206-420G	26	33	42	38.1-46.2	120A/200A	1-10	72	
	MVR1206-470G	30	38	47	42.3-51.7	120A/200A	1-10	77	
	MVR1206-560G	35	45	56	50.4-61.6	120A/200A	1-10	90	
	MVR1206-680G	40	56	68	61.2-74.8	120A/200A	1-10	110	
	MVR1206-760G	45	60	76	69.1-83.6	120A/200A	1-10	126	
	MVR1206-820G	50	65	82	73.8-90.2	120A/200A	1-10	135	
	MVR1206-101G	60	85	100	90-110	100A/200A	1-10	165	
1206 High V	MVR1206-121G	75	100	120	108-132	200A	1-10	200	600V & 2000V
	MVR1206-171G	110	140	170	154-187	200A	1-10	300	
	MVR1206-201G	130	170	200	185-225	200A	1-10	340	
	MVR1206-221G	140	180	220	198-242	200A	1-10	360	
	MVR1206-241G	150	200	240	216-264	200A	1-10	395	
	MVR1206-271G	175	225	270	243-297	200A	1-10	455	
	MVR1206-391G	250	320	270	351-429	100A	1-10	650	
	MVR1206-431G	275	350	430	387-473	100A	1-10	710	
	MVR1206-471G	300	385	470	423-517	100A	1-10	775	
	MVR1206-391H	250	320	270	351-429	200A	1-10	650	
	MVR1206-431H	275	350	430	387-473	200A	1-10	710	

1210 Size

Part Number		Working Voltage		Breakdown Voltage		Peak Current	Clamping Voltage		Surge Voltage V
		AC	DC	@ 1mA DC		8/20uS	8/20uS		
		V _{AC}	V _{DC}	VB		I _p	A	V	
1210	MVR1210-5R0G/H	2.4	3.3	5	4.0-6.0	250A/400A	1-10	12	600V & 2000V
	MVR1210-8R0G/H	4	5.5	5.5	6.6-9.9	250A/400A	1-10	18	
	MVR1210-120G/H	7	9	12	10.2-13.8	250A/400A	1-10	24	
	MVR1210-180G/H	11	14	18	15.3-21.7	250A/400A	1-10	30	
	MVR1210-220G/H	12	16	22	19.8-24.2	250A/400A	1-10	36	
	MVR1210-240G/H	14	18	24	21.6-26.4	250A/400A	1-10	38	
	MVR1210-270G/H	17	22	27	24.3-29.7	250A/400A	1-10	44	
	MVR1210-300G/H	18	24	30	27.2-33.0	250A/400A	1-10	48	
	MVR1210-330G/H	20	26	33	29.7-36.3	250A/400A	1-10	54	
	MVR1210-360G/H	22	28	36	32.7-39.6	250A/400A	1-10	59	
	MVR1210-390G/H	25	30	39	35.1-42.9	250A/400A	1-10	65	
	MVR1210-420G/H	26	33	42	38.1-46.2	250A/400A	1-10	72	
	MVR1210-470G/H	30	38	47	42.3-51.7	250A/400A	1-10	77	
	MVR1210-560G/H	35	45	56	50.4-61.6	250A/400A	1-10	90	
	MVR1210-680G/H	40	56	68	61.2-74.8	250A/400A	1-10	110	
	MVR1210-760G/H	45	60	76	69.1-83.6	250A/400A	1-10	126	
	MVR1210-820G/H	50	65	82	73.8-90.2	250A/400A	1-10	135	
	MVR1210-101G/H	60	85	100	90-110	250A/400A	1-10	165	
1210 High V	MVR1210-121G	75	100	120	108-132	200A	5-10	200	600V & 2000V
	MVR1210-171G	110	140	170	154-187	200A	5-10	300	
	MVR1210-201G	130	170	200	185-225	200A	5-10	340	
	MVR1210-221G	140	180	220	198-242	200A	5-10	360	
	MVR1210-241G	150	200	240	216-264	200A	5-10	395	
	MVR1210-271G	175	225	270	243-297	200A	5-10	455	
	MVR1210-391G	250	320	270	351-429	200A	5-10	650	
	MVR1210-431G	275	350	430	387-473	200A	5-10	710	600V & 2000V
	MVR1210-471G	300	385	470	423-517	200A	5-10	775	
	MVR1210-221H	140	180	220	198-242	500A	5-10	360	
	MVR1210-241H	150	200	240	216-264	500A	5-10	395	
	MVR1210-271H	175	225	270	243-297	500A	5-10	455	
	MVR1210-391H	250	320	270	351-429	400A	5-10	650	
	MVR1210-431H	275	350	430	387-473	400A	5-10	710	
	MVR1210-471H	300	385	470	423-517	400A	5-10	775	

1812 Size

Part Number		Working Voltage		Breakdown Voltage		Peak Current	Clamping Voltage		Surge Voltage V
		AC	DC	@ 1mA DC		8/20uS	8/20uS		
		V _{AC}	V _{DC}	VB		I _p	A	V	
1812	MVR1812-8R0G/H	4	5.5	5.5	6.6-9.9	500A/800A	1-10	18	1000V & 2000V
	MVR1812-120G/H	7	9	12	10.2-13.8	500A/800A	1-10	24	
	MVR1812-180G/H	11	14	18	15.3-21.7	500A/800A	1-10	30	
	MVR1812-220G/H	12	16	22	19.8-24.2	500A/800A	1-10	36	
	MVR1812-240G/H	14	18	24	21.6-26.4	500A/800A	1-10	38	
	MVR1812-270G/H	17	22	27	24.3-29.7	500A/800A	1-10	44	
	MVR1812-300G/H	18	24	30	27.2-33.0	500A/800A	1-10	48	
	MVR1812-330G/H	20	26	33	29.7-36.3	500A/800A	1-10	54	
	MVR1812-360G/H	22	28	36	32.7-39.6	500A/800A	1-10	59	
	MVR1812-390G/H	25	30	39	35.1-42.9	500A/800A	1-10	65	
	MVR1812-420G/H	26	33	42	38.1-46.2	500A/800A	1-10	72	
	MVR1812-470G/H	30	38	47	42.3-51.7	500A/800A	1-10	77	
	MVR1812-560G/H	35	45	56	50.4-61.6	500A/800A	1-10	90	
	MVR1812-680G/H	40	56	68	61.2-74.8	500A/800A	1-10	110	
	MVR1812-760G/H	45	60	76	69.1-83.6	500A/800A	1-10	126	
	MVR1812-820G/H	50	65	82	73.8-90.2	500A/800A	1-10	135	
	MVR1812-101G/H	60	85	100	90-110	500A/800A	1-10	165	
	MVR1812-121G/H	75	100	120	108-132	500A/800A	1-10	200	
1812 High V	MVR1812-171G	110	140	170	154-187	500A	5-10	300	1000V & 2000V
	MVR1812-201G	130	170	200	185-225	500A	5-10	340	
	MVR1812-221G	140	180	220	198-242	500A	5-10	360	
	MVR1812-241G	150	200	240	216-264	500A	5-10	395	
	MVR1812-271G	175	225	270	243-297	500A	5-10	455	
	MVR1812-391G	250	320	270	351-429	500A	5-10	650	
	MVR1812-431G	275	350	430	387-473	500A	5-10	710	
	MVR1812-471G	300	385	470	423-517	500A	5-10	775	1000V & 2000V
	MVR1812-511G	320	415	510	459-561	400A	5-10	845	
	MVR1812-221H	140	180	220	198-242	800A	5-10	360	
	MVR1812-241H	150	200	240	216-264	1000A	5-10	395	
	MVR1812-271H	175	225	270	243-297	1000A	5-10	455	
	MVR1812-391H	250	320	270	351-429	1000A	5-10	650	
	MVR1812-431H	275	350	430	387-473	1000A	5-10	710	
	MVR1812-471H	300	385	470	423-517	1000A	5-10	775	

2220 Size

Part Number		Working Voltage		Breakdown Voltage		Peak Current	Clamping Voltage		Surge Voltage V
		AC	DC	@ 1mA DC		8/20uS	8/20uS		
		V _{AC}	V _{DC}	VB		I _p	A	V	
2220	MVR2220-240G/H	14	18	24	21.6-26.4	800A/1200A	1-10	38	2000V & 2500V
	MVR2220-270G/H	17	22	27	24.3-29.7	800A/1200A	1-10	44	
	MVR2220-300G/H	18	24	30	27.2-33.0	800A/1200A	1-10	48	
	MVR2220-330G/H	20	26	33	29.7-36.3	800A/1200A	1-10	54	
	MVR2220-360G/H	22	28	36	32.7-39.6	800A/1200A	1-10	59	
	MVR2220-390G/H	25	30	39	35.1-42.9	800A/1200A	1-10	65	
	MVR2220-420G/H	26	33	42	38.1-46.2	800A/1200A	1-10	72	
	MVR2220-470G/H	30	38	47	42.3-51.7	800A/1200A	1-10	77	
	MVR2220-560G/H	35	45	56	50.4-61.6	800A/1200A	1-10	90	
	MVR2220-680G/H	40	56	68	61.2-74.8	800A/1200A	1-10	110	
	MVR2220-760G/H	45	60	76	69.1-83.6	800A/1200A	1-10	126	
	MVR2220-820G/H	50	65	82	73.8-90.2	800A/1200A	1-10	135	
	MVR2220-101G/H	60	85	100	90-110	800A/1200A	1-10	165	
2220 High V	MVR2220-201G	130	170	200	185-225	500A	5-10	340	1000V
	MVR2220-221G	140	180	220	198-242	500A	5-10	360	
	MVR2220-241G	150	200	240	216-264	500A	5-10	395	
	MVR2220-271G	175	225	270	243-297	500A	5-10	455	
	MVR2220-391G	250	320	270	351-429	500A	5-10	650	
	MVR2220-431G	275	350	430	387-473	500A	5-10	710	
	MVR2220-471G	300	385	470	423-517	500A	5-10	775	
	MVR2220-511G	320	415	510	459-561	400A	5-10	845	
	MVR2220-221H	140	180	220	198-242	800A	5-10	360	2000V
	MVR2220-241H	150	200	240	216-264	1000A	5-10	395	
	MVR2220-271H	175	225	270	243-297	1000A	5-10	455	
	MVR2220-391H	250	320	390	351-429	1000A	5-10	650	
	MVR2220-431H	275	350	430	387-473	1000A	5-10	710	
	MVR2220-471H	300	385	470	423-517	1000A	5-10	775	
	MVR2220-511H	320	415	510	459-561	1000A	5-10	845	
	MVR2220-561H	350	460	620	558-682	1000A	5-10	920	
	MVR2220-391H152	250	320	390	351-429	1500A	5-20	650	3000V
	MVR2220-391H202	250	320	390	351-429	2000A	5-20	650	4000V
MVR2220-471H152	300	385	470	423-517	1500A	5-20	710	3000V	
MVR2220-471H202	300	385	470	423-517	2000A	5-20	710	4000V	

3220 Size

Part Number		Working Voltage		Breakdown Voltage		Peak Current	Clamping Voltage		Surge Voltage V
		AC	DC	@ 1mA DC		8/20uS	8/20uS		
		VAC	VDC	VB		Ip	A	V	
3220 High V	MVR3220-201G	130	170	200	185-225	500A	5-10	340	1000V
	MVR3220-221G	140	180	220	198-242	500A	5-10	360	
	MVR3220-241G	150	200	240	216-264	500A	5-10	395	
	MVR3220-271G	175	225	270	243-297	500A	5-10	455	
	MVR3220-391G	250	320	270	351-429	500A	5-10	650	
	MVR3220-431G	275	350	430	387-473	450A	5-10	710	
	MVR3220-471G	300	385	470	423-517	450A	5-10	775	
	MVR3220-511G	320	415	510	459-561	450A	5-10	845	
	MVR3220-221H	140	180	220	198-242	800A	5-10	360	2000V
	MVR3220-241H	150	200	240	216-264	1000A	5-10	395	
	MVR3220-271H	175	225	270	243-297	1000A	5-10	455	
	MVR3220-391H	250	320	270	351-429	1000A	5-10	650	
	MVR3220-431H	275	350	430	387-473	1000A	5-10	710	
	MVR3220-471H	300	385	470	423-517	1000A	5-10	775	
	MVR3220-511H	320	415	510	459-561	1000A	5-10	845	
	MVR3220-561H	350	460	620	558-682	1000A	5-10	920	
	MVR3220-471H152	300	385	470	423-517	1500A	5-20	710	3000V
	MVR3220-471H302	300	385	470	423-517	3000A	5-20	710	6000V

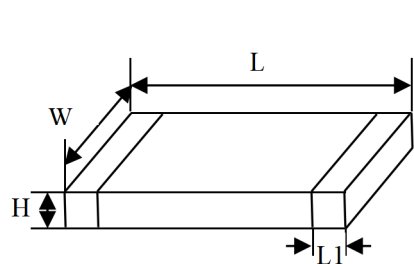
EKT Multilayer Chip Varistor ESD

Features

- Compliant with IEC61000-4-2 contact +/-30 KV
- Quick response time <0.5 ns
- Low reverse leakage current (<0.1uA)
- Operating temperature exceeds 125 °C
- Bi-directional
- SMD package
- Products with Lead-Free
- Different capacitance values correspond to the different speed signal bus (CAN Bus)
- Compatible with (ISO7637-2: 2004(E)
- Pulse 1 (max. -50 V)/ Pulse 2 (max. 125 V)
- Pulses 3a and 3b

Size

Model	0201 (0603)	0402 (1005)	0603 (1608)	0805(2012)	0806 (2012)	1206 (3216)
L	0.60±0.1	1.00±0.15	1.60 ±0.20	2.00±0.20	2.00±0.20	3.20±0.30
W	0.30±0.05	0.50±0.15	0.80 ±0.20	1.20±0.20	1.20±0.20	1.60 ±0.20
H	0.50max	0.70max	0.90max	1.30max	1.80max	2.00max



High Surge Absorption Series

MVR	2220	-	8R0	E	0R2
Series name	Chip Size	Separate	Varistor voltage (Breakdown voltage)	ESD Solutions Suppressor series	Capacitance value
	0603(1608)				
	0604(1610)		8R0=8V		0R2=0.2pF
	0805(2012)		270=27V		2R5=2.5pF
	0806(2017)		471=470V		121=120pF
	1206(3216)				
	1210(3225)				
	1812(4532)				
	2220(5750)				
	3220(8050)				
	4032(1080)				

Electrical Characteristics

Part Number		Working Voltage	Clamping Voltage	Peak Current	Capacitance	Maximum ESD IEC61000-4-2
		DC	8/20uS 1A	8/20uS	@ 1KHz	
		VDC	VC(MAX)	Ip	pF	
0201	MVR0201-5R5E100	5.5	50	1	10	Contact Discharge Air Gap Discharge Voltage: 8 KV Voltage: 15 KV
	MVR0201-120E330	18	26	1	33	
0402 0603	MVR****-5R5E002	5.5	250	1	0.02	
	MVR****-5R5E0R2	5.5	300	1	0.2	
	MVR****-240E005	24	250	1	0.05	
	MVR****-240E0R2	24	300	1	0.2	
	MVR****-5R5E100	5.5	50	1	10	
	MVR****-5R5E220	5.5	34-52	1	22	
	MVR****-5R5E330	5.5	34-52	1	33	
	MVR****- 120E330	12	55	1	33	
	MVR****-5R5E500	5.5	45	10	50	
	MVR****- 120E560	12	55	20	56	
	MVR****- 120E101	12	55	20	100	
	MVR****-240E2R5	24	125	1	2.5	
	MVR****-240E330	24	50	20	33	
	MVR****-240E560	24	55	20	56	
	MVR****-470E0R2	47	250	1	0.2	
	MVR****-470E2R5	47	125	1	2.5	
0805	MVR0805-120E101	12	60	1	100	
1206	MVR1206-850HE151	85	165	1	200	
	MVR1206-8R0HE501	8	18	1	500	

Specification (XXXX=0402or0603size)

1.This Clamping Voltage at which the device stabilized during the transition from high to low impedance 8/20 μs waveform current 1A.2. All capacitance tests are under 1MHzand the Leakage current is measured at working voltage

※ More Working Voltage range 5.5V~30V.

EKT 2220 SMD Disk Varistors

Features

- Improved component design in a compact case
- High surge current capability of up to 500A-1000A
- Superior performance at high temperature
- White package design without shadow in LED lighting application
- SMD mountable disk varistors, suitable for lead-free reflow / wave soldering

Applications

- Power supplies for telecommunication systems
- Protection for LED circuits
- Protection for consumer, industrial equipment
- Protection for automotive electronics

Applicable Standards

- UL1449 (in progress)
- TUV RH IEC61051-1 (in progress)



Type Code Designation

EKT	2220	-	471	G/H
Logo	Size	Separate	Varistor voltage	
	2220(5750)		180=18V	G: General absorption H: High absorption
	3220(8050)		471=470V	
	3225(8060)		102=1000V	
	4032(1008)			
	5650(1412)			

General Technical Data

Parameter	Value	Unit
Operating temperature	-55 to +125	℃
Storage temperature	-55 to +150	℃
Electric strength	≥2.5	kV _{RMS}
Insulation resistance	≥100	MΩ

Electrical Characteristics

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge Current		Energy 10/1000 μS		Rated Power (W)	Typical Capacitance (Reference) @1 KHzPF
	AC (V)	DC (V)		IP(A)	VC(V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge		
EKT2220-180G/H	11	14	18(15.3~20.7)	1	40	100	250	0.4	0.6	0.01	1400
EKT2220-220G/H	14	18	22(19.8~24.2)	1	48	100	250	0.5	0.7	0.01	1150
EKT2220-270G/H	17	22	27(24.3~29.7)	1	60	100	250	0.6	0.9	0.01	930
EKT2220-330G/H	20	26	33(29.7~36.3)	1	73	100	250	0.8	1.1	0.01	760
EKT2220-390G/H	25	31	39(35.1~42.9)	1	80	100	250	0.9	1.2	0.01	640
EKT2220-470G/H	30	38	47(42.3~51.7)	1	104	100	250	1.1	1.5	0.01	530
EKT2220-560G/H	35	45	56(50.4~61.6)	1	123	100	250	1.3	1.8	0.01	450
EKT2220-680G/H	40	56	68(61.2~74.8)	1	145	100	250	1.6	2.2	0.01	370
EKT2220-820G/H	50	65	82(73.8~90.2)	5	150	400	800	2.5	4.0	0.1	300
EKT2220-101G/H	60	85	100(90~110)	5	177	400	800	3.0	4.1	0.1	250
EKT2220-121G/H	75	100	120(108~132)	5	210	400	800	4.0	4.9	0.1	210
EKT2220-151G/H	95	125	150(135~165)	5	260	400	800	4.1	6.5	0.1	165
EKT2220-181G/H	115	150	180(162~198)	5	320	400	800	4.9	7.5	0.1	140
EKT2220-201G/H	130	170	200(185~225)	5	355	400	800	6.5	8.5	0.1	125
EKT2220-221G/H	140	180	220(198~242)	5	380	400	800	7.5	9.0	0.1	110
EKT2220-241G/H	150	200	240(216~264)	5	415	400	800	8.0	10.5	0.1	100
EKT2220-271G/H	175	225	270(243~297)	5	475	400	800	8.5	11.0	0.1	95
EKT2220-301G/H	190	250	300(270~330)	5	520	400	800	9.0	12.0	0.1	85
EKT2220-331G/H	210	275	330(297~363)	5	570	400	800	9.5	13.0	0.1	75
EKT2220-361G/H	230	300	360(324~396)	5	620	400	800	10.0	16.0	0.1	70
EKT2220-391G/H	250	320	390(351~429)	5	675	400	800	12.0	17.0	0.1	65
EKT2220-431G/H	275	350	430(387~473)	5	745	400	800	13.0	20.0	0.1	60
EKT2220-471G/H	300	385	470(423~517)	5	810	400	800	15.0	21.0	0.1	55
EKT2220-511G/H	320	415	510(459~561)	5	845	400	800	16.0	22.5	0.1	50
EKT2220-561G/H	350	460	560(504~616)	5	920	400	800	16.5	24.0	0.1	45
EKT2220-621G/H	385	505	620(558~682)	5	1025	400	800	21.0	25.0	0.1	40
EKT2220-681G/H	420	560	680(612~748)	5	1120	400	800	22.0	29.0	0.1	35
EKT2220-751G/H	460	615	750(675~825)	5	1240	400	800	22.4	32.0	0.1	30

EKT 3220 SMD Disk Varistors

Features

- Improved component design in a compact case
- High surge current capability of up to 250A-1750A
- Superior performance at high temperature
- White package design without shadow in LED lighting application
- SMD mountable disk varistors, suitable for lead-free reflow / wave soldering

Applications

- Power supplies for telecommunication systems
- Protection for LED circuits
- Protection for consumer, industrial equipment
- Protection for automotive electronics

Applicable Standards

- UL1449
- TUV RH IEC61051-1



Type Code Designation

EKT	3220	-	471	G/H
Logo	Size	Separate	Varistor voltage	G: General absorption H: High absorption
	2220(5750)		180=18V	
	3220(8050)		471=470V	
	3225(8060)		102=1000V	
	4032(1008)			
	5650(1412)			

General Technical Data

Parameter	Value	Unit
Operating temperature	-55 to +125	°C
Storage temperature	-55 to +150	°C
Electric strength	≥2.5	kV _{RMS}
Insulation resistance	≥100	MQ

Electrical Characteristics

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge Current		Energy 10/1000 μS		Rated Power (W)	Typical Capacitance (Reference) @1 KHzPF
	AC (V)	DC (V)		IP(A)	VC(V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge		
EKT3220-180G/H	11	14	18(15.3~20.7)	2.5	36	250	500	0.9	2.0	0.02	2800
EKT3220-220G/H	14	18	22(19.8~24.2)	2.5	43	250	500	1.1	2.4	0.02	2300
EKT3220-270G/H	17	22	27(24.3~29.7)	2.5	53	250	500	1.4	3.0	0.02	1800
EKT3220-330G/H	20	26	33(29.7~36.3)	2.5	65	250	500	1.7	3.5	0.02	1500
EKT3220-390G/H	25	31	39(35.1~42.9)	2.5	77	250	500	2.1	4.0	0.02	1300
EKT3220-470G/H	30	38	47(42.3~51.7)	2.5	93	250	500	2.5	5.0	0.02	1100
EKT3220-560G/H	35	45	56(50.4~61.6)	2.5	110	250	500	3.1	6.0	0.02	890
EKT3220-680G/H	40	56	68(61.2~74.8)	2.5	135	250	500	3.6	7.0	0.02	740
EKT3220-820G/H	50	65	82(73.8~90.2)	10	135	1000	1500	5.5	10	0.25	600
EKT3220-101G/H	60	85	100(90~110)	10	165	1000	1500	6.5	12	0.25	500
EKT3220-121G/H	75	100	120(108~132)	10	200	1000	1500	7.8	12	0.25	420
EKT3220-151G/H	95	125	150(135~165)	10	250	1000	1500	9.7	13	0.25	330
EKT3220-181G/H	115	150	180(162~198)	10	300	1000	1500	11.7	16	0.25	280
EKT3220-201G/H	130	170	200(185~225)	10	330	1000	1500	13	17	0.25	250
EKT3220-221G/H	140	180	220(198~242)	10	360	1000	1500	14	19	0.25	230
EKT3220-241G/H	150	200	240(216~264)	10	395	1000	1500	15	21	0.25	210
EKT3220-271G/H	175	225	270(243~297)	10	455	1000	1500	18	24	0.25	185
EKT3220-301G/H	190	250	300(270~330)	10	505	1000	1500	20	26	0.25	165
EKT3220-331G/H	210	275	330(297~363)	10	550	1000	1500	23	28	0.25	150
EKT3220-361G/H	230	300	360(324~396)	10	595	1000	1500	25	32	0.25	140
EKT3220-391G/H	250	320	390(351~429)	10	650	1000	1500	25	35	0.25	130
EKT3220-431G/H	275	350	430(387~473)	10	710	1000	1500	28	40	0.25	110
EKT3220-471G/H	300	385	470(423~517)	10	775	1000	1500	30	42	0.25	105
EKT3220-511G/H	320	415	510(459~561)	10	845	1000	1500	30	45	0.25	100
EKT3220-561G/H	350	460	560(504~616)	10	920	1000	1500	30	49	0.25	90
EKT3220-621G/H	385	505	620(558~682)	10	1025	1000	1500	33	55	0.25	80
EKT3220-681G/H	420	560	680(612~748)	10	1120	1000	1500	33	60	0.25	75
EKT3220-751G/H	460	615	750(675~825)	10	1240	1000	1500	65	67	0.25	70
EKT3220-781G/H	485	640	780(702~858)	10	1290	1000	1500	65	67	0.25	70
EKT3220-821G/H	510	670	820(738~902)	10	1355	1000	1500	65	70	0.25	60

EKT 4032 SMD Disk Varistors

Features

- Improved component design in a compact case
- High surge current capability of up to 2.5 kA-3.5KA
- Superior performance at high temperature
- White package design without shadow in LED lighting application
- SMD mountable disk varistors, suitable for lead-free reflow / wave soldering

Applications

- Power supplies for telecommunication systems
- Protection for LED circuits
- Protection for consumer, industrial equipment
- Protection for automotive electronics

Applicable Standards

- UL1449
- TUV RH IEC61051-1



Type Code Designation

EKT	4032	-	471	G/H
Logo	Size	Separate	Varistor voltage	G: General absorption H: High absorption
	2220(5750)		180=18V	
	3220(8050)		471=470V	
	3225(8060)		102=1000V	
	4032(1008)			
	5650(1412)			

General Technical Data

Parameter	Value	Unit
Operating temperature	-55 to +125	℃
Storage temperature	-55 to +150	℃
Electric strength	≥2.5	kV _{RMS}
Insulation resistance	≥100	MQ

Electrical Characteristics

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge Current		Energy 10/1000 μS		Rated Powe (W)	Typical Capacitance (Reference) @1 KHzPF
	AC (V)	DC (V)		IP(A)	VC(V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge		
EKT4032-180G/H	11	14	18(15.3~20.7)	5	36	500	1000	2.1	3	0.05	5600
EKT4032-220G/H	14	18	22(19.8~24.2)	5	43	500	1000	2.5	5	0.05	4500
EKT4032-270G/H	17	22	27(24.3~29.7)	5	53	500	1000	3.0	6	0.05	3700
EKT4032-330G/H	20	26	33(29.7~36.3)	5	65	500	1000	4.0	7	0.05	3000
EKT4032-390G/H	25	31	39(35.1~42.9)	5	77	500	1000	4.6	9	0.05	2400
EKT4032-470G/H	30	38	47(42.3~51.7)	5	93	500	1000	5.5	11	0.05	2100
EKT4032-560G/H	35	45	56(50.4~61.6)	5	110	500	1000	7.0	13	0.05	1800
EKT4032-680G/H	40	56	68(61.2~74.8)	5	135	500	1000	8.2	15	0.05	1500
EKT4032-820G/H	50	65	82(73.8~90.2)	25	135	2000	2500	12	17	0.4	1200
EKT4032-101G/H	60	85	100(90~110)	25	165	2000	2500	15	18	0.4	1000
EKT4032-121G/H	75	100	120(108~132)	25	200	2000	2500	18	21	0.4	830
EKT4032-151G/H	95	125	150(135~165)	25	250	2000	2500	22	25	0.4	670
EKT4032-181G/H	115	150	180(162~198)	25	300	2000	2500	27	30	0.4	560
EKT4032-201G/H	130	170	200(185~225)	25	330	2000	2500	30	35	0.4	500
EKT4032-221G/H	140	180	220(198~242)	25	360	2000	2500	32	39	0.4	450
EKT4032-241G/H	150	200	240(216~264)	25	395	2000	2500	35	42	0.4	420
EKT4032-271G/H	175	225	270(243~297)	25	455	2000	2500	37	49	0.4	370
EKT4032-301G/H	190	250	300(270~330)	25	505	2000	2500	40	54	0.4	330
EKT4032-331G/H	210	275	330(297~363)	25	550	2000	2500	43	58	0.4	300
EKT4032-361G/H	230	300	360(324~396)	25	595	2000	2500	47	65	0.4	280
EKT4032-391G/H	250	320	390(351~429)	25	650	2000	2500	60	70	0.4	260
EKT4032-431G/H	275	350	430(387~473)	25	710	2000	2500	65	80	0.4	230
EKT4032-471G/H	300	385	470(423~517)	25	775	2000	2500	67	85	0.4	210
EKT4032-511G/H	320	415	510(459~561)	25	845	2000	2500	69	90	0.4	200
EKT4032-561G/H	350	460	560(504~616)	25	920	2000	2500	70	92	0.4	180
EKT4032-621G/H	385	505	620(558~682)	25	1025	2000	2500	72	95	0.4	160
EKT4032-681G/H	420	560	680(612~748)	25	1120	2000	2500	75	98	0.4	150
EKT4032-751G/H	460	615	750(675~825)	25	1240	2000	2500	77	100	0.4	140
EKT4032-781G/H	485	640	780(702~858)	25	1290	2000	2500	80	105	0.4	130
EKT4032-821G/H	510	670	820(738~902)	25	1355	2000	2500	85	110	0.4	120
EKT4032-911G/H	550	745	910(819~1001)	25	1500	2000	2500	93	130	0.4	110
EKT4032-102G/H	625	825	1000(900~1100)	25	1650	2000	2500	102	140	0.4	100
EKT4032-112G/H	680	895	1100(990~1210)	25	1812	2000	2500	115	150	0.4	90

EKT 5650 SMD Disk Varistors

Features

- Wide operating voltage (V1mA) range from 18V to 1800V.
- Fast responding to transient over-voltage.
- Large absorbing transient energy capability.
- Low clamping ratio and no follow-on current.



Applications

- Transistor, Diode, IC, Thyristor or Triac semiconductor protection.
- Surge protection in consumer electronics.
- Surge protection in industrial electronics.
- Surge protection in electronic home appliances, gas and petroleum appliances.

Applicable Standards

- UL1449
- TUV RH IEC61051-1

Type Code Designation

EKT	5650	-	471	G/H
Logo	Size	Separate	Varistor voltage	G: General absorption H: High absorption
	2220(5750)		180=18V	
	3220(8050)		471=470V	
	3225(8060)		102=1000V	
	4032(1008)			
	5650(1412)			

General Technical Data

Parameter	Value	Unit
Operating temperature	-55 to +125	℃
Storage temperature	-40 to +150	℃
Electric strength	≥2.5	kV _{RMS}
Insulation resistance	≥100	MQ

Electrical Characteristics

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		With standing Surge Current		Energy 10/1000μS		Rated Powe	Typical Capacitance (Reference)
	AC (V)	DC (V)		IP(A)	VC(V)	I(A) Standard	(A) High Surge	I(J) Standard	I(J) High Surge		
EKT5650-180G/H	11	14	18(15.3~20.7)	10	36	1000	2000	4	7	0.1	11000
EKT5650-220G/H	14	18	22(19.8~24.2)	10	43	1000	2000	5	8	0.1	9100
EKT5650-270G/H	17	22	27(24.3~29.7)	10	53	1000	2000	6	10	0.1	7400
EKT5650-330G/H	20	26	33(29.7~36.3)	10	65	1000	2000	8	12	0.1	6100
EKT5650-390G/H	25	31	39(35.1~42.9)	10	77	1000	2000	9	13	0.1	5100
EKT5650-470G/H	30	38	47(42.3~51.7)	10	93	1000	2000	10	17	0.1	4300
EKT5650-560G/H	35	45	56(50.4~61.6)	10	110	1000	2000	11	20	0.1	3600
EKT5650-680G/H	40	56	68(61.2~74.8)	10	135	1000	2000	14	24	0.1	2900
EKT5650-820G/H	50	65	82(73.8~90.2)	50	135	3500	5000	29	30	0.6	2400
EKT5650-101G/H	60	85	100(90~110)	50	165	3500	5000	34	35	0.6	2000
EKT5650-121G/H	75	100	120(108~132)	50	200	3500	5000	40	42	0.6	1700
EKT5650-151G/H	95	125	150(135~165)	50	250	3500	5000	75	79	0.6	1300
EKT5650-181G/H	115	150	180(162~198)	50	300	3500	5000	58	74	0.6	1100
EKT5650-201G/H	130	170	200(185~225)	50	330	3500	5000	57	70	0.6	1000
EKT5650-221G/H	140	180	220(198~242)	50	360	3500	5000	60	78	0.6	830
EKT5650-241G/H	150	200	240(216~264)	50	395	3500	5000	63	84	0.6	740
EKT5650-271G/H	175	225	270(243~297)	50	455	3500	5000	70	99	0.6	670
EKT5650-301G/H	190	250	300(270~330)	50	505	3500	5000	77	108	0.6	610
EKT5650-331G/H	210	275	330(297~363)	50	550	3500	5000	85	115	0.6	560
EKT5650-361G/H	230	300	360(324~396)	50	595	3500	5000	93	130	0.6	510
EKT5650-391G/H	250	320	390(351~429)	50	650	3500	5000	100	140	0.6	460
EKT5650-431G/H	275	350	430(387~473)	50	710	3500	5000	115	155	0.6	430
EKT5650-471G/H	300	385	470(423~517)	50	775	3500	5000	125	175	0.6	430
EKT5650-511G/H	320	415	510(459~561)	50	845	3500	5000	126	180	0.6	390
EKT5650-561G/H	350	460	560(504~616)	50	920	3500	5000	127	185	0.6	360
EKT5650-621G/H	385	505	620(558~682)	50	1025	3500	5000	128	190	0.6	320
EKT5650-681G/H	420	560	680(612~748)	50	1120	3500	5000	130	200	0.6	290
EKT5650-751G/H	460	615	750(675~825)	50	1240	3500	5000	143	210	0.6	270
EKT5650-781G/H	485	640	780(702~858)	50	1290	3500	5000	148	220	0.6	260
EKT5650-821G/H	510	670	820(738~902)	50	1355	3500	5000	157	235	0.6	240
EKT5650-911G/H	550	745	910(819~1001)	50	1500	3500	5000	175	255	0.6	220
EKT5650-102G/H	625	825	1000(900~1100)	50	1650	3500	5000	190	280	0.6	200
EKT5650-112G/H	680	895	1100(990~1210)	50	1815	3500	5000	213	310	0.6	180
EKT5650-122G/H	750	990	1200(1080~1320)	50	1980	3500	5000	232	324	0.6	160
EKT5650-142G/H	880	1140	1400(1260~1540)	50	2310	3500	5000	238	327	0.6	150
EKT5650-162G/H	1000	1280	1600(1400~1760)	50	2640	3500	5000	243	331	0.6	140
EKT5650-182G/H	1100	1465	1800(1620~1980)	50	2970	3500	5000	250	335	0.6	130

EKT5650-180G/H & EKT5650-220G/H does not have VDE certification

EKT Metal Oxide Varistor - 05D Series

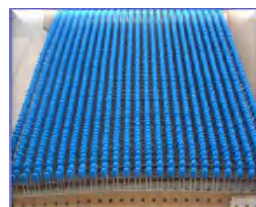
FEATURES

- * Wide operating voltage (V 0.1mA) range from 18V to 750V.
- * Fast responding to transient over-voltage.
- * Large absorbing transient energy capability.
- * Low clamping ratio and no follow-on current.
- * Meets MSL level 1, per J-STD-020 ISO9001-2018
- * Safety :  UL VDE CQC



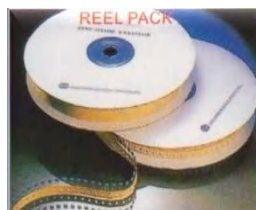
APPLICATION

- * Transistor, Diode, IC, Thyristor or Triac semiconductor protection.
- * Surge protection in consumer electronics.
- * Surge protection in industrial electronics.
- * Surge protection in electronic home appliances, gas and petroleum appliances.
- * Relay and electromagnetic valve surge absorption.



General Characteristics Definition

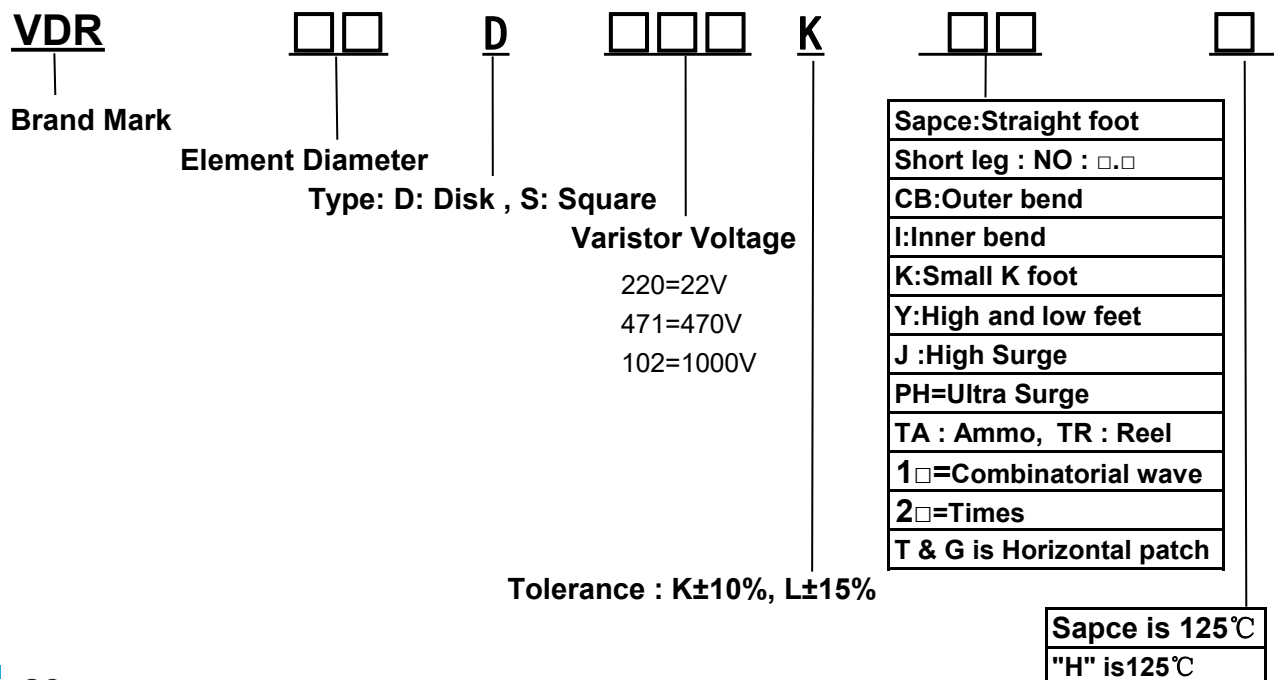
- * Operating Temperature: (-40 °C ~+85 °C ~+125 °C)
- * Storage Temperature: (-40 °C ~ +125 °C~ +150 °C)
- * Working Surface Temperature: +115 °C
- * Insulation Resistance: > 100M Ω
- * Coating (Epoxy Resin): Flame-Retardant to UL 94 V-0



Material

- * Coating: Epoxy Resin
- * Lead Wire: The Copper Wire
- * Electrode: Silver Solder
- * Disk: Zinc Oxide

PART NUMBER CODE



05D ELECTRICAL CHARACTERISTIC

Part Number		Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge Current		Energy 10/1000μS		Rated Powe	Typical Capacitance (Reference)
Standard	High Surge	AC (V)	DC (V)	V0.1mA(V)	IP(A)	VC(V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge	(W)	@1KHzPF
05D180L	05D180LJ	11	14	18(15.3~20.7)	1	40	100	250	0.4	0.6	0.01	1400
05D220K	05D220KJ	14	18	22(19.8~24.2)	1	48	100	250	0.5	0.7	0.01	1150
05D270K	05D270KJ	17	22	27(24.3~29.7)	1	60	100	250	0.6	0.9	0.01	930
05D330K	05D330KJ	20	26	33(29.7~36.3)	1	73	100	250	0.8	1.1	0.01	760
05D390K	05D390KJ	25	31	39(35.1~42.9)	1	80	100	250	0.9	1.2	0.01	640
05D470K	05D470KJ	30	38	47(42.3~51.7)	1	104	100	250	1.1	1.5	0.01	530
05D560K	05D560KJ	35	45	56(50.4~61.6)	1	123	100	250	1.3	1.8	0.01	450
05D680K	05D680KJ	40	56	68(61.2~74.8)	1	145	100	250	1.6	2.2	0.01	370
05D820K	05D820KJ	50	65	82(73.8~90.2)	5	150	400	800	2.5	4.0	0.1	300
05D101K	05D101KJ	60	85	100(90~110)	5	177	400	800	3.0	4.1	0.1	250
05D121K	05D121KJ	75	100	120(108~132)	5	210	400	800	4.0	4.9	0.1	210
05D151K	05D151KJ	95	125	150(135~165)	5	260	400	800	4.1	6.5	0.1	165
05D181K	05D181KJ	115	150	180(162~198)	5	320	400	800	4.9	7.5	0.1	140
05D201K	05D201KJ	130	170	200(185~225)	5	355	400	800	6.5	8.5	0.1	125
05D221K	05D221KJ	140	180	220(198~242)	5	380	400	800	7.5	9.0	0.1	110
05D241K	05D241KJ	150	200	240(216~264)	5	415	400	800	8.0	10.5	0.1	100
05D271K	05D271KJ	175	225	270(243~297)	5	475	400	800	8.5	11.0	0.1	95
05D301K	05D301KJ	190	250	300(270~330)	5	520	400	800	9.0	12.0	0.1	85
05D331K	05D331KJ	210	275	330(297~363)	5	570	400	800	9.5	13.0	0.1	75
05D361K	05D361KJ	230	300	360(324~396)	5	620	400	800	10.0	16.0	0.1	70
05D391K	05D391KJ	250	320	390(351~429)	5	675	400	800	12.0	17.0	0.1	65
05D431K	05D431KJ	275	350	430(387~473)	5	745	400	800	13.0	20.0	0.1	60
05D471K	05D471KJ	300	385	470(423~517)	5	810	400	800	15.0	21.0	0.1	55
05D511K	05D511KJ	320	415	510(459~561)	5	845	400	800	16.0	22.5	0.1	50
05D561K	05D561KJ	350	460	560(504~616)	5	920	400	800	16.5	24.0	0.1	45
05D621K	05D621KJ	385	505	620(558~682)	5	1025	400	800	21.0	25.0	0.1	40
05D681K	05D681KJ	420	560	680(612~748)	5	1120	400	800	22.0	29.0	0.1	35
05D751K	05D751KJ	460	615	750(675~825)	5	1240	400	800	22.4	32.0	0.1	30

05D511K to 05D751K does not have VDE certification

07D ELECTRICAL CHARACTERISTIC

Part Number		Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge Current		Energy 10/1000μS		Rated Powe	Typical Capacitance (Reference)
Standard	High Surge	AC (V)	DC (V)	V1mA(V)	IP(A)	VC(V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge	(W)	@1KHzPF
07D180L	07D180LJ	11	14	18(15.3~20.7)	2.5	36	250	500	0.9	2.0	0.	2800
07D220K	07D220KJ	14	18	22(19.8~24.2)	2.5	43	250	500	1.1	2.4	020.	2300
07D270K	07D270KJ	17	22	27(24.3~29.7)	2.5	53	250	500	1.4	3.0	020.	1800
07D330K	07D330KJ	20	26	33(29.7~36.3)	2.5	65	250	500	1.7	3.5	020.	1500
07D390K	07D390KJ	25	31	39(35.1~42.9)	2.5	77	250	500	2.1	4.0	020.	1300
07D470K	07D470KJ	30	38	47(42.3~51.7)	2.5	93	250	500	2.5	5.0	020.	1100
07D560K	07D560KJ	35	45	56(50.4~61.6)	2.5	110	250	500	3.1	6.0	020.	890
07D680K	07D680KJ	40	56	68(61.2~74.8)	2.5	135	250	500	3.6	7.0	020.	740
07D820K	07D820KJ	50	65	82(73.8~90.2)	10	135	1200	1750	5.5	10	020.	600
07D101K	07D101KJ	60	85	100(90~110)	10	165	1200	1750	6.5	12	250.	500
07D121K	07D121KJ	75	100	120(108~132)	10	200	1200	1750	7.8	12	250.	420
07D151K	07D151KJ	95	125	150(135~165)	10	250	1200	1750	9.7	13	250.	330
07D181K	07D181KJ	115	150	180(162~198)	10	300	1200	1750	11.7	16	250.	280
07D201K	07D201KJ	130	170	200(185~225)	10	330	1200	1750	13	17	250.	250
07D221K	07D221KJ	140	180	220(198~242)	10	360	1200	1750	14	19	250.	230
07D241K	07D241KJ	150	200	240(216~264)	10	395	1200	1750	15	21	250.	210
07D271K	07D271KJ	175	225	270(243~297)	10	455	1200	1750	18	24	250.	185
07D301K	07D301KJ	190	250	300(270~330)	10	505	1200	1750	20	26	250.	165
07D331K	07D331KJ	210	275	330(297~363)	10	550	1200	1750	23	28	250.	150
07D361K	07D361KJ	230	300	360(324~396)	10	595	1200	1750	25	32	250.	140
07D391K	07D391KJ	250	320	390(351~429)	10	650	1200	1750	25	35	250.	130
07D431K	07D431KJ	275	350	430(387~473)	10	710	1200	1750	28	40	250.	115
07D471K	07D471KJ	300	385	470(423~517)	10	775	1200	1750	30	42	250.	105
07D511K	07D511KJ	320	415	510(459~561)	10	845	1200	1750	30	45	250.	100
07D561K	07D561KJ	350	460	560(504~616)	10	920	1200	1750	30	49	250.	90
07D621K	07D621KJ	385	505	620(558~682)	10	1025	1200	1750	33	55	250.	80
07D681K	07D681KJ	420	560	680(612~748)	10	1120	1200	1750	33	60	250.	75
07D751K	07D751KJ	460	615	750(675~825)	10	1240	1200	1750	65	67	250.	70
07D781K	07D781KJ	485	640	780(702~858)	10	1290	1200	1750	65	67	250.	70
07D821K	07D821KJ	510	670	820(738~902)	10	1355	1200	1750	65	70	250.	60

10D ELECTRICAL CHARACTERISTIC

Part Number		Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge Current		Energy 10/1000μS		Rated Powe	Typical Capacitance (Reference)
Standard	High Surge	AC (V)	DC (V)	V1mA(V)	IP(A)	VC(V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge	(W)	@1KHzPF
10D180L	10D180LJ	11	14	18(15.3~20.7)	5	36	500	1000	2.1	3	0.	5600
10D220K	10D220KJ	14	18	22(19.8~24.2)	5	43	500	1000	2.5	5	050.	4500
10D270K	10D270KJ	17	22	27(24.3~29.7)	5	53	500	1000	3.0	6	050.	3700
10D330K	10D330KJ	20	26	33(29.7~36.3)	5	65	500	1000	4.0	7	050.	3000
10D390K	10D390KJ	25	31	39(35.1~42.9)	5	77	500	1000	4.6	9	050.	2400
10D470K	10D470KJ	30	38	47(42.3~51.7)	5	93	500	1000	5.5	11	050.	2100
10D560K	10D560KJ	35	45	56(50.4~61.6)	5	110	500	1000	7.0	13	050.	1800
10D680K	10D680KJ	40	56	68(61.2~74.8)	5	135	500	1000	8.2	15	050.	1500
10D820K	10D820KJ	50	65	82(73.8~90.2)	25	135	2500	3500	12	17	05	1200
10D101K	10D101KJ	60	85	100(90~110)	25	165	2500	3500	15	18	0.4	1000
10D121K	10D121KJ	75	100	120(108~132)	25	200	2500	3500	18	21	0.4	830
10D151K	10D151KJ	95	125	150(135~165)	25	250	2500	3500	22	25	0.4	670
10D181K	10D181KJ	115	150	180(162~198)	25	300	2500	3500	27	30	0.4	560
10D201K	10D201KJ	130	170	200(185~225)	25	330	2500	3500	30	35	0.4	500
10D221K	10D221KJ	140	180	220(198~242)	25	360	2500	3500	32	39	0.4	450
10D241K	10D241KJ	150	200	240(216~264)	25	395	2500	3500	35	42	0.4	420
10D271K	10D271KJ	175	225	270(243~297)	25	455	2500	3500	37	49	0.4	370
10D301K	10D301KJ	190	250	300(270~330)	25	505	2500	3500	40	54	0.4	330
10D331K	10D331KJ	210	275	330(297~363)	25	550	2500	3500	43	58	0.4	300
10D361K	10D361KJ	230	300	360(324~396)	25	595	2500	3500	47	65	0.4	280
10D391K	10D391KJ	250	320	390(351~429)	25	650	2500	3500	60	70	0.4	260
10D431K	10D431KJ	275	350	430(387~473)	25	710	2500	3500	65	80	0.4	230
10D471K	10D471KJ	300	385	470(423~517)	25	775	2500	3500	67	85	0.4	210
10D511K	10D511KJ	320	415	510(459~561)	25	845	2500	3500	69	90	0.4	200
10D561K	10D561KJ	350	460	560(504~616)	25	920	2500	3500	70	92	0.4	180
10D621K	10D621KJ	385	505	620(558~682)	25	1025	2500	3500	72	95	0.4	160
10D681K	10D681KJ	420	560	680(612~748)	25	1120	2500	3500	75	98	0.4	150
10D751K	10D751KJ	460	615	750(675~825)	25	1240	2500	3500	77	100	0.4	140
10D781K	10D781KJ	485	640	780(702~858)	25	1290	2500	3500	80	105	0.4	130
10D821K	10D821KJ	510	670	820(738~902)	25	1355	2500	3500	85	110	0.4	120
10D911K	10D911KJ	550	745	910(819~1001)	25	1500	2500	3500	93	130	0.4	110
10D102K	10D102KJ	625	825	1000(900~1100)	25	1650	2500	3500	102	140	0.4	100
10D112K	10D112KJ	680	895	1100(990~1210)	25	1815	2500	3500	115	150	0.4	90

14D ELECTRICAL CHARACTERISTIC

Part Number		Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge Current		Energy 10/1000μS		Rated Powe	Typical Capacitance (Reference)
		AC (V)	DC (V)	V1mA(V)	IP(A)	VC(V)	I(A) Standard	(A) High Surge	I(J) Standard	I(J) High Surge	(W)	@1KHzPF
14D180L	14D180LJ	11	14	18(15.3~20.7)	10	36	1000	2000	4	7	0.1	11000
14D220K	14D220KJ	14	18	22(19.8~24.2)	10	43	1000	2000	5	8	0.1	9100
14D270K	14D270KJ	17	22	27(24.3~29.7)	10	53	1000	2000	6	10	0.1	7400
14D330K	14D330KJ	20	26	33(29.7~36.3)	10	65	1000	2000	8	12	0.1	6100
14D390K	14D390KJ	25	31	39(35.1~42.9)	10	77	1000	2000	9	13	0.1	5100
14D470K	14D470KJ	30	38	47(42.3~51.7)	10	93	1000	2000	10	17	0.1	4300
14D560K	14D560KJ	35	45	56(50.4~61.6)	10	110	1000	2000	11	20	0.1	3600
14D680K	14D680KJ	40	56	68(61.2~74.8)	10	135	1000	2000	14	24	0.1	2900
14D820K	14D820KJ	50	65	82(73.8~90.2)	50	135	4500	6000	29	30	0.6	2400
14D101K	14D101KJ	60	85	100(90~110)	50	165	4500	6000	34	35	0.6	2000
14D121K	14D121KJ	75	100	120(108~132)	50	200	4500	6000	40	42	0.6	1700
14D151K	14D151KJ	95	125	150(135~165)	50	250	4500	6000	75	79	0.6	1300
14D181K	14D181KJ	115	150	180(162~198)	50	300	4500	6000	58	74	0.6	1100
14D201K	14D201KJ	130	170	200(185~225)	50	330	4500	6000	57	70	0.6	1000
14D221K	14D221KJ	140	180	220(198~242)	50	360	4500	6000	60	78	0.6	830
14D241K	14D241KJ	150	200	240(216~264)	50	395	4500	6000	63	84	0.6	740
14D271K	14D271KJ	175	225	270(243~297)	50	455	4500	6000	70	99	0.6	670
14D301K	14D301KJ	190	250	300(270~330)	50	505	4500	6000	77	108	0.6	610
14D331K	14D331KJ	210	275	330(297~363)	50	550	4500	6000	85	115	0.6	560
14D361K	14D361KJ	230	300	360(324~396)	50	595	4500	6000	93	130	0.6	510
14D391K	14D391KJ	250	320	390(351~429)	50	650	4500	6000	100	140	0.6	460
14D431K	14D431KJ	275	350	430(387~473)	50	710	4500	6000	115	155	0.6	430
14D471K	14D471KJ	300	385	470(423~517)	50	775	4500	6000	125	175	0.6	430
14D511K	14D511KJ	320	415	510(459~561)	50	845	4500	6000	126	180	0.6	390
14D561K	14D561KJ	350	460	560(504~616)	50	920	4500	6000	127	185	0.6	360
14D621K	14D621KJ	385	505	620(558~682)	50	1025	4500	6000	128	190	0.6	320
14D681K	14D681KJ	420	560	680(612~748)	50	1120	4500	6000	130	200	0.6	290
14D751K	14D751KJ	460	615	750(675~825)	50	1240	4500	6000	143	210	0.6	270
14D781K	14D781KJ	485	640	780(702~858)	50	1290	4500	6000	148	220	0.6	260
14D821K	14D821KJ	510	670	820(738~902)	50	1355	4500	6000	157	235	0.6	240
14D911K	14D911KJ	550	745	910(819~1001)	50	1500	4500	6000	175	255	0.6	220
14D102K	14D102KJ	625	825	1000(900~1100)	50	1650	4500	6000	190	280	0.6	200
14D112K	14D112KJ	680	895	1100(990~1210)	50	1815	4500	6000	213	310	0.6	180
14D122K	14D122KJ	750	990	1200(1080~1320)	50	1980	4500	6000	232	324	0.6	160
14D142K	14D142KJ	880	1140	1400(1260~1540)	50	2310	4500	6000	238	327	0.6	150
14D162K	14D162KJ	1000	1280	1600(1400~1760)	50	2640	4500	6000	243	331	0.6	140
14D182K	14D182KJ	1100	1465	1800(1620~1980)	50	2970	4500	6000	250	335	0.6	130

14D180L & 14D220K does not have VDE certification

20D ELECTRICAL CHARACTERISTIC

Part Number		Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge Current		Energy 10/1000μS		Rated Powe	Typical Capacitance (Reference)
		AC (V)	DC (V)	V1mA(V)	IP(A)	VC(V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge	(W)	@1KHzPF
20D180L	20D180LJ	11	14	18(15.3~20.7)	20	36	2000	3000	11	13	0.2	28500
20D220K	20D220KJ	14	18	22(19.8~24.2)	20	43	2000	3000	14	16	0.2	18500
20D270K	20D270KJ	17	22	27(24.3~29.7)	20	53	2000	3000	16	19	0.2	13000
20D330K	20D330KJ	20	26	33(29.7~36.3)	20	65	2000	3000	23	24	0.2	11500
20D390K	20D390KJ	25	31	39(35.1~42.9)	20	77	2000	3000	26	28	0.2	8500
20D470K	20D470KJ	30	38	47(42.3~51.7)	20	93	2000	3000	30	34	0.2	7400
20D560K	20D560KJ	35	45	56(50.4~61.6)	20	110	2000	3000	41	46	0.2	6500
20D680K	20D680KJ	40	56	68(61.2~74.8)	20	135	2000	3000	46	49	0.2	5800
20D820K	20D820KJ	50	65	82(73.8~90.2)	100	135	6500	10000	38	56	1.0	4900
20D101K	20D101KJ	60	85	100(90~110)	100	165	6500	10000	45	70	1.0	4000
20D121K	20D121KJ	75	100	120(108~132)	100	200	6500	10000	55	85	1.0	3300
20D151K	20D151KJ	95	125	150(135~165)	100	250	6500	10000	70	106	1.0	2700
20D181K	20D181KJ	115	150	180(162~198)	100	300	6500	10000	85	130	1.0	2200
20D201K	20D201KJ	130	170	200(185~225)	100	330	6500	10000	95	140	1.0	2000
20D221K	20D221KJ	140	180	220(198~242)	100	360	6500	10000	100	155	1.0	1800
20D241K	20D241KJ	150	200	240(216~264)	100	395	6500	10000	108	168	1.0	1650
20D271K	20D271KJ	175	225	270(243~297)	100	455	6500	10000	127	190	1.0	1500
20D301K	20D301KJ	190	250	300(270~330)	100	505	6500	10000	136	210	1.0	1300
20D331K	20D331KJ	210	275	330(297~363)	100	550	6500	10000	150	228	1.0	1200
20D361K	20D361KJ	230	300	360(324~396)	100	595	6500	10000	163	255	1.0	1100
20D391K	20D391KJ	250	320	390(351~429)	100	650	6500	10000	180	275	1.0	1000
20D431K	20D431KJ	275	350	430(387~473)	100	710	6500	10000	190	305	1.0	930
20D471K	20D471KJ	300	385	470(423~517)	100	775	6500	10000	220	350	1.0	850
20D511K	20D511KJ	320	415	510(459~561)	100	845	6500	10000	225	360	1.0	780
20D561K	20D561KJ	350	460	560(504~616)	100	920	6500	10000	230	380	1.0	710
20D621K	20D621KJ	385	505	620(558~682)	100	1025	6500	10000	235	390	1.0	650
20D681K	20D681KJ	420	560	680(612~748)	100	1120	6500	10000	240	400	1.0	600
20D751K	20D751KJ	460	615	750(675~825)	100	1240	6500	10000	255	420	1.0	530
20D781K	20D781KJ	485	640	780(702~858)	100	1290	6500	10000	265	440	1.0	510
20D821K	20D821KJ	510	670	820(738~902)	100	1355	6500	10000	282	460	1.0	500
20D911K	20D911KJ	550	745	910(819~1001)	100	1500	6500	10000	310	510	1.0	440
20D102K	20D102KJ	625	825	1000(900~1100)	100	1650	6500	10000	342	565	1.0	400
20D112K	20D112KJ	680	895	1100(990~1210)	100	1815	6500	10000	383	620	1.0	360
20D122K	20D122KJ	750	990	1200(1080~1320)	100	1980	6500	10000	408	660	1.0	350
20D142K	20D142KJ	880	1140	1400(1260~1540)	100	2310	6500	10000	532	784	1.0	340
20D162K	20D162KJ	1000	1280	1600(1400~1760)	100	2640	6500	10000	606	896	1.0	330
20D182K	20D182KJ	1100	1465	1800(1620~1980)	100	2970	6500	10000	625	990	1.0	320

20D180L & 20D220K does not have VDE certification

EKT Chip Thermistor NTC - 0201 Series

Shape and Dimensions

尺寸：见图 1 和表 1

PCB 焊盘：见图 2 和表 1.

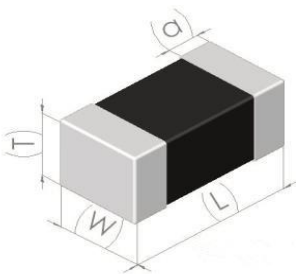


图 1 Fig.1

Dimensions: See Fig.1 and Table 1.

Recommended PCB pattern for reflow soldering: See Fig.2 and Table 1.

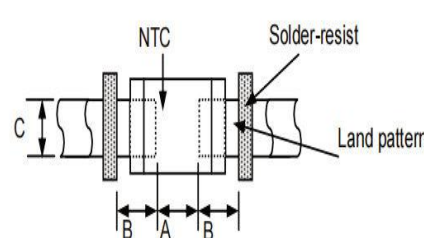


图 2 Fig.2

表 1 (Table 1) 单位 unit: inch[mm]

类别 Type	L	W	T	a	A	B	C
0201 [0603]	0.024±0.002 [0.6±0.05]	0.012±0.002 [0.3±0.05]	0.012±0.002 [0.3±0.05]	0.006±0.002 [0.15±0.05]	[0.20-0.30]	[0.25-0.35]	[0.25-0.35]

Product Identification (Part Number)

EKT0201N104@4250%B

①②③④⑤⑥⑦⑧

①类别	Type
EKT	品牌Logo

② 外形尺寸(mm) External Dimensions (L×W)	
0201[0603]	0.6×0.3
0402[1005]	1.0×0.5
0603[1608]	1.6×0.8
0805[2012]	2.0×1.2

③ 分隔符 Delimiter	
N	片式 NTC 热敏电阻器 Chip NTC Thermistor

④25℃的零功率电阻 Nominal Zero-Power Resistance	
222	2.2kΩ
103	10kΩ
104	100kΩ

⑤电阻值公差 Tolerance of Resistance	
D	±0.5%
F	±1%
G	±2%
H	±3%
J	±5%

⑥B 值常数 B Constant	
3435	3435K
3984	3984K
4250	4250K

⑦B 值公差 Tolerance of B Constant	
F	±1%
H	±3%

⑧B 值计算方式 B constant calculation method	
A	25℃&85℃
B	25℃&50℃

Electrical Characteristics

型号 Part No	电阻值 Resistance (25℃) (kΩ)	B 常数 B Constant (25/50℃) (K)	B 常数 B Constant (25/85℃) (K)	允许工作电流 Permissible Operating Current (25℃) (mA)	耗散系数 Dissipation Factor (mW/℃)	热时间常数 Thermal Time Constant (s)	额定功率 Rated Electric Power(25℃) (mW)	工作温度 Operating ambient temperature (℃)
EKT0201N103@3380%B	10	3380	3435	0.31	1.0	<3	100	-40~+125
EKT0201N103@3435%A	10	3380	3435	0.31				
EKT0201N103@3950%B	10	3950	3987	0.31				
EKT0201N223@3380%B	22	3380	3435	0.22				
EKT0201N223@3950%B	22	3950	3987	0.22				
EKT0201N473@3950%B	47	3950	3987	0.12				
EKT0201N473@4050%B	47	4050	4100	0.14				
EKT0201N473@4100%B	47	4100	4150	0.12				
EKT0201N683@4150%B	68	4150	4210	0.11				
EKT0201N683@4250%B	68	4250	4310	0.11				
EKT0201N104@4150%B	100	4150	4210	0.10				
EKT0201N104@4250%B	100	4250	4310	0.10				
EKT0201N224@4250%B	220	4250	4310	0.06				

EKT Chip Thermistor NTC - 0402 Series

Shape and Dimensions

尺寸：见图 1 和表 1

PCB 焊盘：见图 2 和表 1

Dimensions: See Fig.1 and Table 1.

Recommended PCB pattern for reflow soldering: See Fig.2 and Table 1.

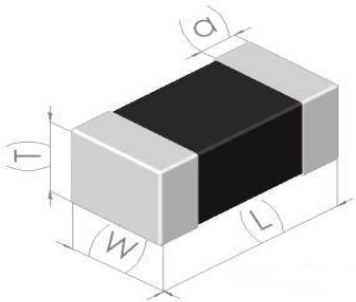


图 1 Fig.1

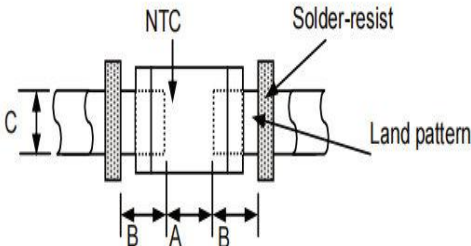


图 2 Fig.2

表 1 (Table 1) 单位 unit: inch[mm]

类别 Type	L	W	T	a	A	B	C
0402 [1005]	0.039±0.006 [1.0±0.15]	0.020±0.006 [0.5±0.15]	0.020±0.006 [0.5±0.15]	0.010±0.004 [0.25±0.1]	[0.45-0.55]	[0.4-0.5]	[0.45-0.55]

Product Identification (Part Number)

EKT0402N103@3380%B

①②③④⑤⑥⑦⑧

①类别	Type
EKT	品牌Logo

②外形尺寸(mm)	External Dimensions (L×W)
0201[0603]	0.6×0.3
0402[1005]	1.0×0.5
0603[1608]	1.6×0.8
0805[2012]	2.0×1.2

③分隔符	Delimiter
N	片式 NTC 热敏电阻器 Chip NTC Thermistor

④25℃的零功率电阻	Nominal Zero-Power Resistance
222	2.2kΩ
103	10kΩ
104	100kΩ

⑤电阻值公差	Tolerance of Resistance
D	±0.5%
F	±1%
G	±2%
H	±3%
J	±5%

⑥B 值常数	B Constant
3380	3380K
3984	3984K
4250	4250K

⑦B 值公差	Tolerance of B Constant
F	±1%

⑧B 值计算方式	B constant calculation method
A	25℃&85℃
B	25℃&50℃

Electrical Characteristics

型号 Part No	电阻值 Resistance (25℃) (kΩ)	B 常数 B Constant (25/50℃) (K)	B 常数 B Constant (25/85℃) (K)	允许工作电流 Permissible Operating Current (25℃) (mA)	耗散系数 Dissipation Factor (mW/℃)	热时间常数 Thermal Time Constant (s)	额定功率 Rated Electric Power(25℃) (mW)	工作温度 Operating ambient temperature (℃)
EKT0402N472@3950%B	4.7	3950	3987	0.46	1.0	<3	100	-40~+125
EKT0402N682@3950%B	6.8	3950	3987	0.38				
EKT0402N103@3380%B	10	3380	3435	0.31				
EKT0402N103@3435%A	10	3380	3435	0.31				
EKT0402N103@3450%B	10	3450	3500	0.31				
EKT0402N103@3950%B	10	3950	3987	0.33				
EKT0402N103@4050%B	10	4050	4110	0.33				
EKT0402N153@3450%B	15	3450	3500	0.25				
EKT0402N223@3950%B	22	3950	3987	0.23				
EKT0402N223@4050%B	22	4050	4100	0.21				
EKT0402N333@4050%B	33	4050	4100	0.17				
EKT0402N303@3950%B	30	3950	3987	0.16				
EKT0402N303@4050%B	30	4050	4110	0.15				
EKT0402N333@3950%B	33	3950	3987	0.16				
EKT0402N333@4050%B	33	4050	4110	0.15				
EKT0402N473@4050%B	47	4050	4100	0.12				
EKT0402N473@4100%B	47	4100	4150	0.12				
EKT0402N503@4100%B	50	4100	4150	0.12				
EKT0402N683@4150%B	68	4150	4210	0.11				
EKT0402N104@3950%B	100	3950	3987	0.10				
EKT0402N104@4150%B	100	4150	4210	0.10				
EKT0402N104@4250%B	100	4250	4310	0.10				
EKT0402N154@4150%B	150	4150	4210	0.08				
EKT0402N204@4250%B	200	4250	4310	0.06				
EKT0402N224@4250%B	220	4250	4310	0.06				
EKT0402N474@4050%A	470	4000	4050	0.04				

EKT Chip Thermistor NTC - 0603 Series

Shape and Dimensions

- 尺寸：见图 1 和表 1
 - PCB 焊盘：见图 2 和表 1
- Dimensions: See Fig.1 and Table 1.
 - Recommended PCB pattern for reflow soldering: See Fig.2 and Table 1

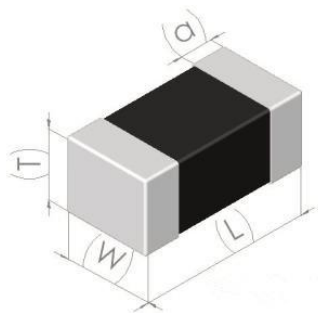


图 1 Fig.1

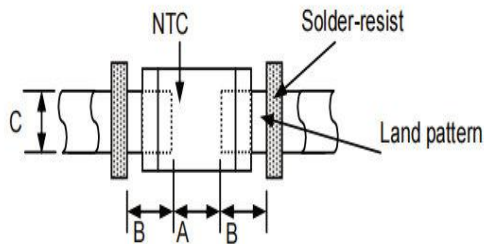


图 2 Fig.2

表 1 (Table 1) 单位 unit: inch[mm]

类别 Type	L	W	T	a	A	B	C
0603 [1608]	0.063±0.006 [1.6±0.15]	0.031±0.006 [0.8±0.15]	0.031±0.006 [0.8±0.15]	0.012±0.008 [0.3±0.2]	[0.6-0.8]	[0.6-0.7]	[0.6-0.8]

Product Identification (Part Number)

EKT0603N104@3950%B

①②③④⑤⑥⑦⑧

① 产品代号Code	
EKT	品牌Logo

② 外形尺寸(mm) External Dimensions (L×W×T)	
0201[0603]	0.60×0.30×0.30
0402[1005]	1.00×0.50×0.50
0603[1608]	1.60×0.80×0.80
0805[2012]	2.00×1.25×0.85
1206[3216]	3.20×1.60×0.85

③ 类别 Type	
N	片式 NTC热敏电阻器 Chip NTCThermistor

④ 25℃的零功率电阻 Nominal Zero-Power Resistance	
472	4.7kΩ
103	10kΩ
104	100kΩ

⑤ 电阻值公差 Tolerance of Resistance	
F	±1%
G	±2%
H	±3%
J	±5%

⑥ B 值常数 B Constant	
3435	3435K
3950	3950K
4150	4150K

⑦ B 值公差 Tolerance of B Constant	
F	±1%
H	±3%

⑧ B 值计算方式 B constant calculation method	
A	25℃&85℃
B	25℃&50℃

Electrical Characteristics

型号 Part No	电阻值 Resistance (25℃) (kΩ)	B 常数 B Constant (25/50℃) (K)	B 常数 B Constant (25/85℃) (K)	允许工作电流 Permissible Operating Current (25℃) (mA)	耗散系数 Dissipation Factor (mW/℃)	热时间常数 Thermal Time Constant (s)	额定功率 Rated Electric Power(25℃) (mW)	工作温度 Operating ambient temperature (℃)
EKT0603N101@3380%B	0.10	3380	3435	3.1	1.0	<5	100	-40~+125
EKT0603N151@3380%B	0.15	3380	3435	2.5				
EKT0603N221@3450%B	0.22	3450	3500	2.1				
EKT0603N331@3450%B	0.33	3450	3500	1.7				
EKT0603N471@3450%B	0.47	3450	3500	1.4				
EKT0603N681@3450%B	0.68	3450	3500	1.2				
EKT0603N102@3200%B	1.0	3200	3250	1.0				
EKT0603N102@3450%B	1.0	3450	3500	1.0				
EKT0603N152@3450%B	1.5	3450	3500	0.81				
EKT0603N222@3950%B	2.2	3950	3987	0.67				
EKT0603N302@3950%B	3.0	3950	3987	0.55				
EKT0603N332@3950%B	3.3	3950	3987	0.55				
EKT0603N472@3500%B	4.7	3500	3545	0.44				
EKT0603N472@3950%B	4.7	3950	3987	0.46				
EKT0603N502@3950%B	5.0	3950	3987	0.44				
EKT0603N682@3950%B	6.8	3950	3987	0.38				
EKT0603N103@3435%A	10	3380	3435	0.31				
EKT0603N103@3450%B	10	3450	3500	0.31				
EKT0603N103@3950%B	10	3950	3987	0.33				
EKT0603N153@3950%B	15	3950	3987	0.25				
EKT0603N223@3950%B	22	3950	3987	0.21				
EKT0603N223@4050%B	22	4050	4110	0.21				

EKT Chip Thermistor NTC - 0805 Series

Shape and Dimensions

- 尺寸：见图 1 和表 1
 - PCB焊盘：见图 2 和表 1
- Dimensions: See Fig.1 and Table 1.
 - Recommended PCB pattern for reflow soldering: See Fig.2 and Table 1

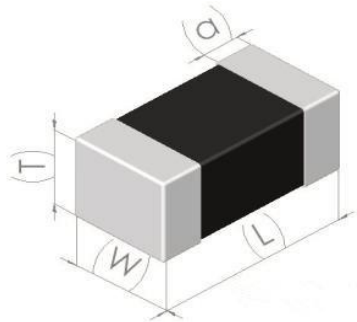


图 1 Fig.1

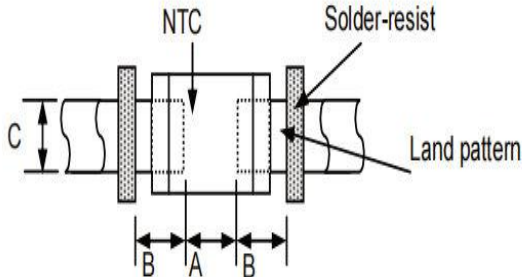


图 2 Fig.1

表 1 (Table1) 单位 unit: inch[mm]

类别 Type	L	W	T	a	A	B	C
0805 [2012]	0.079±0.008 [2.0±0.2]	0.049±0.008 [1.25±0.2]	0.033±0.008 [0.85±0.2]	0.020±0.012 [0.5±0.3]	[1.0-1.1]	[0.6-0.7]	[1.0-1.2]

Product Identification (Part Number)

EKT 0805 N 104 @ 3950 % B
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① 类别 Type	
EKT	品牌Logo

② 外形尺寸(mm) External Dimensions (L×W×T)	
0201[0603]	0.60×0.30×0.30
0402[1005]	1.00×0.50×0.50
0603[1608]	1.60×0.80×0.80
0805[2012]	2.00×1.25×0.85
1206[3216]	3.20×1.60×0.85

③ 分隔符 Delimiter	
N	片式 NTC热敏电阻器 Chip NTC Thermistor

④ 25℃的零功率 电阻 Nominal Zero-Power Resistance	
502	5kΩ
473	47kΩ
104	100kΩ

⑤ 电阻值 公差 Tolerance of Resistance	
F	±1%
G	±2%
H	±3%
J	±5%

⑥ B值常数 BConstant	
3435	3435K
3950	3950K
4150	4150K

⑦ B值公差 Tolerance of B Constant	
F	±1%
H	±3%

⑧ B值计算方式 B constant calculation method	
A	25℃&85℃
B	25℃&50℃

型号 Part No	电阻值 Resistance (25℃) (kΩ)	B 常数 B Constant (25/50℃) (K)	B 常数 B Constant (25/85℃) (K)	允许工作电流 Permissible Operating Current (25℃) (mA)	耗散系数 Dissipation Factor (mW/℃)	热时间常数 Thermal Time Constant (s)	额定功率 Rated Electric Power(25℃) (mW)	工作温度 Operating ambient temperature (℃)
EKT0603N333@3950%B	33	3950	3987	0.17	1.0	<5	100	40~+125
EKT0603N333@3950%B	33	3950	3987	0.17				
EKT0603N333@4050%B	33	4050	4100	0.17				
EKT0603N473@3950%B	47	3950	3987	0.14				
EKT0603N473@4050%B	47	4050	4100	0.14				
EKT0603N473@4150%B	47	4150	4210	0.14				
EKT0603N503@4150%B	50	4150	4210	0.13				
EKT0603N683@4150%B	68	4150	4210	0.12				
EKT0603N104@3950%B	100	3950	3987	0.10				
EKT0603N104@4150%B	100	4150	4210	0.10				
EKT0603N104@4250%B	100	4250	4310	0.10				
EKT0603N154@3950%B	150	3950	3987	0.08				
EKT0603N154@4300%B	150	4300	4350	0.08				
EKT0603N224@3950%B	220	3950	3987	0.06				
EKT0603N224@4350%B	220	4300	4350	0.06				
EKT0603N334@3950%B	330	3950	3987	0.05				
EKT0603N334@4400%B	330	4400	4456	0.05				
EKT0603N474@4250%B	470	4250	4310	0.04				
EKT0603N474@4500%B	470	4500	4567	0.04				
EKT0603N684@4500%B	680	4500	4567	0.03				
EKT0603N135@4700%B	1300	4700	4760	0.02				

Electrical Characteristics

型号Part No	电阻值 Resistance (25°C)(kΩ)	B 常数B Constant(25/ 50°C)(K)	B 常数B Constant(25/ 85°C)(K)	允许工作电流 PermissibleOperati ng Current(25°C) (mA)	耗散系数 DissipationF actor(mW/°C)	热时间常数 Thermal TimeConstant(s)	额定功率Rated ElectricPower (25°C)(mW)	工作温度 Operatingambi enttemperatur e(°C)
EKT0805N102@3435%A	1	3380	3435	1.2	2	<5	200	-40~+125
EKT0805N202@3450%B	2	3450	3500	1				
EKT0805N202@3950%B	2	3950	3987	1				
EKT0805N222@3450%B	2	3450	3500	0.9				
EKT0805N222@3950%B	2.2	3950	3987	0.9				
EKT0805N332@3450%B	3.3	3450	3500	0.72				
EKT0805N332@3950%B	3.3	3950	3987	0.72				
EKT0805N472@3500%B	4.7	3450	3500	0.65				
EKT0805N472@3500%B	4.7	3500	3545	0.65				
EKT0805N472@3950%B	4.7	3950	3987	0.65				
EKT0805N502@3950%B	5	3950	3987	0.6				
EKT0805N682@3950%B	6.8	3950	3987	0.5				
EKT0805N103@3435%A	10	3380	3435	0.44				
EKT0805N103@3450%B	10	3450	3500	0.44				
EKT0805N103@3950%B	10	3950	3987	0.44				
EKT0805N153@3500%B	15	3500	3545	0.32				
EKT0805N223@3950%B	22	3950	3987	0.3				
EKT0805N223@4050%B	22	4050	4110	0.3				

型号Part No	电阻值 Resistance(25 °C)(kΩ)	B 常数B Constant(25/ 50°C)(K)	B 常数B Constant(25/ 85°C)(K)	允许工作电流 PermissibleOperating Current(25°C)(mA)	耗散系数 DissipationFac tor(mW/°C)	热时间常数 Thermal TimeConstant(s)	额定功率Rated ElectricPower(25 °C)(mW)	工作温度 Operatingambi enttemperature (°C)
EKT0805N333@4050%B	33	4050	4100	0.24	2	<5	200	-40~ +125
EKT0805N473@4050%B	47	4050	4100	0.2				
EKT0805N104@3950%B	100	3950	3987	0.14				
EKT0805N104@4250%B	100	4250	4310	0.14				
EKT0805N154@4250%B	150	4250	4310	0.11				
EKT0805N224@3950%B	220	3950	3987	0.08				
EKT0805N224@4250%B	220	4250	4310	0.08				
EKT0805N224@4300%B	220	4300	4350	0.08				
EKT0805N334@3950%B	330	3950	3987	0.06				
EKT0805N334@4300%B	330	4300	4350	0.06				
EKT0805N474@4250%B	470	4250	4310	0.05				
EKT0805N474@3950%B	470	3950	3987	0.05				
EKT0805N474@4000%B	470	4000	4050	0.05				
EKT0805N474@4350%B	470	4350	4410	0.05				
EKT0805N564@4350%B	560	4350	4410	0.05				
EKT0805N684@4100%B	680	4100	4150	0.04				
EKT0805N684@4350%B	680	4350	4410	0.04				
EKT0805N684@4400%B	680	4400	4456	0.04				
EKT0805N135@4700%B	1300	4700	4760	0.03				

EKT Chip Thermistor NTC - 1206 Series

Shape and Dimensions

- 尺寸：见图 1 和表 1
 - PCB焊盘：见图 2 和表 1
- Dimensions: See Fig.1 and Table 1.
 - Recommended PCB pattern for reflow soldering: See Fig.2 and Table 1

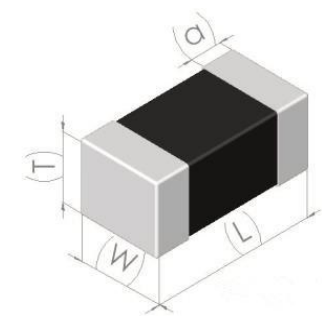


图 1 Fig.1

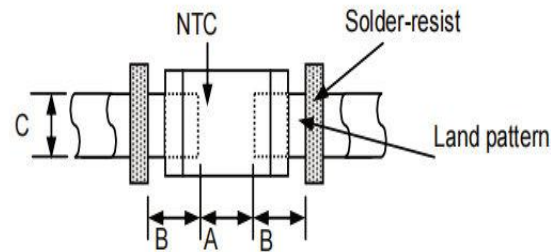


图 2 Fig.1

表 1 (Table 1) 单位 unit: inch[mm]

类别 Type	L	W	T	a	A	B	C
1206 [3216]	0.126±0.008 [3.2±0.2]	0.063±0.008 [1.60±0.2]	0.033±0.008 [0.85±0.2]	0.020±0.012 [0.5±0.3]	[1.8-2.5]	[1.0-1.5]	[1.2-2.0]

Product Identification (Part Number)

EKT1206N104F3950F

①②③④⑤⑥⑦⑧

① 类别 Type	
EKT	品牌Logo

② 外形尺寸 (mm) External Dimensions (L×W×T)	
0201[0603]	0.60×0.30×0.30
0402[1005]	1.00×0.50×0.50
0603[1608]	1.60×0.80×0.80
0805[2012]	2.00×1.25×0.85
1206[3216]	3.20×1.60×0.85

③ 分隔符 Delimiter	
N	片式 NTC 热敏电阻器 Chip NTC Thermistor

④ 25℃ 的 零功率 电阻 Nominal Zero-Power Resistance	
502	5kΩ
473	47kΩ
104	100kΩ

⑤ 电阻值 公差 Tolerance of Resistance	
F	±1%
G	±2%
H	±3%
J	±5%

⑥ B 值常数 B Constant	
3435	3435K
3950	3950K
4150	4150K

⑦ B 值公差 Tolerance of B Constant	
F	±1%
H	±3%

⑧ B 值 计算方式 B constant calculation method	
A	25℃ & 85℃
B	25℃ & 50℃

Electrical Characteristics

1) F 档 F Series

型号 Part No	电阻值 Resistance (25℃) (kΩ)	B 常数 B Constant (25/50℃) (K)	B 常数 B Constant (25/85℃) (K)	允许工作电流 Permissible Operating Current (25℃) (mA)	耗散系数 Dissipation Factor (mW/℃)	热时间常数 Thermal Time Constant (s)	额定功率 Rated Electric Power(25℃) (mW)	工作温度 Operating ambient temperature (℃)
EKTI206N102F3380FA	10±1%	3380±1%	3435	1.12	3.0	< 8	200	-40~+125
EKTI206N472F4050FB	47±1%	4050±1%	4100	1.02				
EKTI206N103F3380FB	10±1%	3380±1%	3435	0.66				
EKTI206N223F3950FB	100±1%	4250±1%	4310	0.48				
EKTI206N473F4050FB	47±1%	4050±1%	4100	0.43				
EKTI206N104F4250FB	100±1%	4250±1%	4310	0.21				

2) H 档 H Series

型号 Part No	电阻值 Resistance (25℃) (kΩ)	B 常数 B Constant (25/50℃) (K)	B 常数 B Constant (25/85℃) (K)	允许工作电流 Permissible Operating Current (25℃) (mA)	耗散系数 Dissipation Factor (mW/℃)	热时间常数 Thermal Time Constant (s)	额定功率 Rated Electric Power(25℃) (mW)	工作温度 Operating ambient temperature (℃)
EKTI206N103H3380FA	10±3%	3380±1%	3435	0.66	3.0	< 8	200	-40~+125
EKT1206N473H4050FB	47±3%	4050±1%	4100	0.43				
EKT1206N104H4250FB	100±3%	4250±1%	4310	0.21				

3) J 档 J Series

型号 Part No	电阻值 Resistance (25℃) (kΩ)	B 常数 B Constant (25/50℃) (K)	B 常数 B Constant (25/85℃) (K)	允许工作电流 Permissible Operating Current (25℃) (mA)	耗散系数 Dissipation Factor (mW/℃)	热时间常数 Thermal Time Constant (s)	额定功率 Rated Electric Power(25℃) (mW)	工作温度 Operating ambient temperature (℃)
EKTI206N102J3380FB	10±5%	3380±1%	3435	0.72	3.0	< 8	200	-40~+125
EKTI206N472J3450FA	10±5%	3450±1%	3500	0.66				
EKTI206N103J3435FA	10±5%	3380±1%	3435	0.66				
EKTI206N103J3435FA	10±5%	3380±1%	3435	0.66				
EKT1206N473J4050FB	47±5%	4050±1%	4100	0.43				
EKT1206N104J4250FB	100±5%	4250±1%	4310	0.21				

• 我司可根据客户需求定制特殊规格产品。Special products can be customized

EKT Plastic Thermistor NTC - 2220 Series

Product Features

- 1.2220 (D-5) series in the form of radial resin coated form
- 2.Small dimension, powerful, strong in inrush current limiting
- 3.Fast response
- 4.Large material constant, lower residue resistance
- 5.Long life, high reliability
- 6.Complete part, wide operation range
- 7.Operating temperature -40~+175 ℃



Application Scope

- 1. Conversion power, switch mode power supply, UPS power
- 2. Energy saving lights, ballast
- 3. Electronic circuit, power supply circuit

Product Model Description

EKT	2220	N	2R5	M	5R0
品牌 Logo	尺寸 Size	Negative Temperature Coefficient NTC负温度系数	Rated Zero-Power Resistance 额定零功率电阻值	Accuracy Error 精度误差	Max. Steady State Current 最大稳态电流
	2220(5750)			K: 10%	1R0: 1A
	3220(8050)		2R5=2.5Ω	M: 20%	5R0: 5A
	3225(8060)		100=10Ω		100: 10A
	4032(1008)		101=100Ω		
	5650(1412)				

Temperature

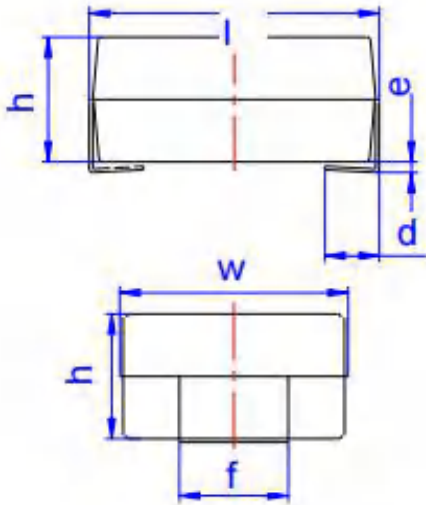
Parameter	Value	Unit
Operating temperature工作温度	-40 ~ +175	℃
Storage temperature存储温度	-10 ~ +40	℃
thermal time constant	≤18	S
Insulation resistance	≥6	mW/℃

Main Technical Parameters

尺寸型号Size: EKT2220 (D-5)

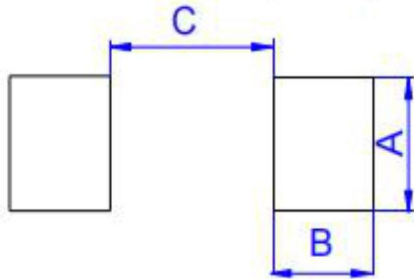
NO	R ₂₅ (Ω) Resistance	Maximum steady-state current (A)	Residual resistance (Ω)	Resistance B _{25/85} (K)	Thermal time constant (s)	Dissipation Coefficient (mW/℃)	Operation Temperature (℃)
EKT2220N5R0M1R0	5	1	0.584	2700	≤18	≥6	-40 ~ 175
EKT2220N6R0M0R7	6	0.7	0.675	2700			
EKT2220N7R0M0R7	7	0.7	0.766	2700			
EKT2220N8R0M0R7	8	0.7	0.857	2700			
EKT2220N100M0R7	10	0.7	1.039	2700			
EKT2220N120M0R6	12	0.6	1.235	2800			
EKT2220N150M0R6	15	0.6	1.530	2800			
EKT2220N160M0R6	16	0.6	1.628	2800			
EKT2220N180M0R6	18	0.6	1.824	2800			
EKT2220N200M0R6	20	0.6	2.020	2800			
EKT2220N220M0R6	22	0.6	2.060	2800			
EKT2220N250M0R5	25	0.5	2.123	2800			
EKT2220N300M0R5	30	0.5	2.227	2800			
EKT2220N330M0R5	33	0.5	2.436	2800			
EKT2220N500M0R4	50	0.4	2.653	3000			
EKT2220N600M0R3	60	0.3	2.753	3000			

Dimensional Drawings



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
l	6.55	6.75	6.95	0.166	0.171	0.176
w	4.95	5.15	5.35	0.125	0.130	0.135
h	3.55	3.75	3.95	0.090	0.095	0.100
d	1.35	1.55	1.75	0.034	0.039	0.044
e	0	0.15	0.3	0	0.004	0.007
f	1.6	1.8	2.0	0.040	0.045	0.050

Recommended Solder Pad Layout



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	1.6	1.8	2.0	0.04	0.045	0.05
B	1.35	1.55	1.75	0.034	0.039	0.044
C	3.55	3.75	3.95	0.09	0.095	0.10

EKT Plastic Thermistor NTC - 3220 Series

Product Features

- 1.3220 series in the form of radial resin coated form
- 2.Small dimension, powerful, strong in inrush current limiting
- 3.Fast response
- 4.Large material constant, lower residue resistance
- 5.Long life, high reliability
- 6.Complete part, wide operation range
- 7.Operating temperature -40~+175 ℃



Application Scope

1. Conversion power, switch mode power supply, UPS power
2. Energy saving lights, ballast
3. Electronic circuit, power supply circuit

Product Model Description

EKT	3220	N	2R5	M	3R0
品牌 Logo	尺寸 Size	Negative Temperature Coefficient NTC负温度系数	Rated Zero-Power Resistance 额定零功率电阻值	Accuracy Error 精度误差	Max. Steady State Current 最大稳态电流
	2220(5750)		2R5=2.5Ω	K: 10%	3R0: 3A
	3220(8050)		100=10Ω	M: 20%	5R0: 5A
	3225(8060)		101=100Ω		100: 10A
	4032(1008)				
	5650(1412)				

Temperature

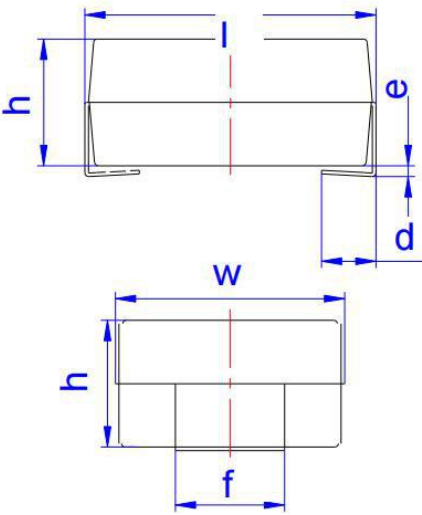
Parameter	Value	Unit
Operating temperature工作温度	-40 ~ +175	℃
Storage temperature存储温度	-10 ~ +40	℃
thermal time constant	≤30	S
Insulation resistance	≥9	mW/℃

Main Technical Parameters

尺寸型号Size: EKT3220 (D-7)

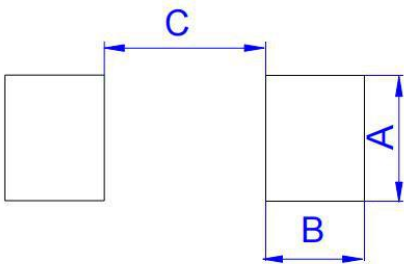
NO	R ₂₅ (Ω) Resistance	Maximum steady-state current (A)	Residual resistance (Ω)	Resistance B _{25/85} (K)	Thermal time constant (s)	Dissipation Coefficient (mW/℃)	Operation Temperature (℃)
EKT3220N2R5M3R0	2.5	3	0.195	2700	≤30	≥9	-40 ~ 175
EKT3220N3R0M3R0	3	3	0.206	2700			
EKT3220N4R0M2R0	4	2	0.246	2700			
EKT3220N5R0M2R0	5	2	0.286	2700			
EKT3220N6R0M2R0	6	2	0.436	2700			
EKT3220N7R0M2R0	7	2	0.585	2700			
EKT3220N8R0M1R0	8	1	0.735	2800			
EKT3220N100M1R0	10	1	0.789	2800			
EKT3220N120M0R7	12	0.7	1.180	2800			
EKT3220N150M0R7	15	0.7	1.465	3000			
EKT3220N160M0R7	16	0.7	1.560	3000			
EKT3220N180M0R7	18	0.7	1.774	3000			
EKT3220N200M0R6	20	0.6	1.988	3000			
EKT3220N220M0R6	22	0.6	1.950	3000			
EKT3220N250M0R5	25	0.5	2.609	3000			
EKT3220N300M0R5	30	0.5	3.706	3000			

Dimensional Drawings



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
l	7.7		8.3	0.303		0.327
w	6.0		6.6	0.236		0.260
h	3.3		4.0	0.122		0.150
d	1.2		1.8	0.047		0.071
e	0		0.3	0		0.012
f	2.7		3.3	0.106		0.130

Recommended Solder Pad Layout



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A		3.5			0.138	
B		2.8			0.110	
C		4.5			0.177	

EKT Plastic Thermistor NTC - 4032 Series

Product Features

- 14032 (D-9) series in the form of radial resin coated form
- 2.Small dimension, powerful, strong in inrush current limiting
- 3.Fast response
- 4.Large material constant, lower residue resistance
- 5.Long life, high reliability
- 6.Complete part, wide operation range
- 7.Operating temperature -40~+175 ℃



Application Scope

- 1. Conversion power, switch mode power supply, UPS power
- 2. Energy saving lights, ballast
- 3. Electronic circuit, power supply circuit

Product Model Description

EKT	4032	N	2R5	M	3R0
品牌 Logo	尺寸 Size	Negative Temperature Coefficient NTC负温度系数	Rated Zero-Power Resistance 额定零功率电阻值	Accuracy Error 精度误差	Max. Steady State Current 最大稳态电流
	2220(5750)		2R5=2.5Ω	K: 10%	3R0: 3A
	3220(8050)		100=10Ω	M: 20%	5R0: 5A
	3225(8060)		101=100Ω		100: 10A
	4032(1008)				
	5650(1412)				

Temperature

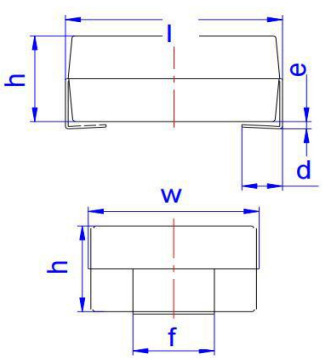
Parameter	Value	Unit
Operating temperature工作温度	-40 ~ +175	℃
Storage temperature存储温度	-10 ~ +40	℃
thermal time constant	≤35	S
Insulation resistance	≥11	mW/℃

Main Technical Parameters

尺寸型号Size: EKT4032 (D-9)

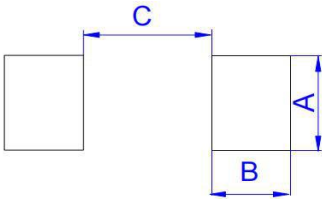
NO	R ₂₅ (Ω) Resistance	Maximum steady-state current (A)	Residual resistance (Ω)	Resistance B _{25/85} (K)	Thermal time constant (s)	Dissipation Coefficient (mW/℃)	Operation Temperature (℃)
EKT4032N1R5M4R0	1.5	4	0.1	2600	≤35	≥11	-40 ~ 175
EKT4032N2R5M4R0	2.5	4	0.195	2700			
EKT4032N3R0M4R0	3	4	0.145	2700			
EKT4032N4R0M3R0	4	3	0.254	2700			
EKT4032N5R0M3R0	5	3	0.264	2700			
EKT4032N6R0M2R0	6	2	0.358	2700			
EKT4032N7R0M2R0	7	2	0.326	2800			
EKT4032N8R0M2R0	8	2	0.373	2800			
EKT4032N100M2R0	10	2	0.398	2800			
EKT4032N120M1R0	12	1	0.989	2800			
EKT4032N150M1R0	15	1	1.028	3000			
EKT4032N160M1R0	16	1	1.041	3000			
EKT4032N180M1R0	18	1	1.107	3000			
EKT4032N200M1R0	20	1	1.173	3000			
EKT4032N220M1R0	22	1	1.235	3000			
EKT4032N250M1R0	25	1	1.267	3000			
EKT4032N300M1R0	30	1	1.320	3000			
EKT4032N330M1R0	33	1	1.431	3000			
EKT4032N500M1R0	50	1	1.480	3100			
EKT4032N600M0R8	60	0.8	1.641	3100			
EKT4032N800M0R8	80	0.8	2.187	3200			
EKT4032N101M0R8	100	0.8	2.734	3200			
EKT4032N121M0R8	120	0.8	3.281	3200			
EKT4032N201M0R5	200	0.5	5.469	3200			
EKT4032N401M0R2	400	0.2	10.94	3300			

Dimensional Drawings



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
I	10.1		10.7	0.398		0.421
w	7.7		8.3	0.303		0.327
h	3.6		4.5	0.165		0.189
d	1.2		1.8	0.047		0.071
e	0		0.3	0		0.012
f	2.7		3.3	0.106		0.130

Recommended Solder Pad Layout



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A		3.5			0.138	
B		2.8			0.110	
C		6.5			0.265	

EKT Plastic Thermistor NTC - 5650 Series

Product Features

1. 5650 (D-15) series High steady-state current: Up to 8A, ideal for high-power circuits.
2. Wide resistance range: R25 from 1Ω to 120Ω, flexible for circuit design.
3. Low residual resistance: As low as 0.06Ω under max current, minimizing
4. High B-constant: 2700K – 3200K ensures stable temperature sensitivity.
5. Fast thermal response: Time constant ≤90s
6. High-temperature operation: -40°C to 200°C for harsh conditions.
7. SMD plastic package: Suitable for automated PCB assembly.



Application Scope

1. Inrush Current Suppression

Protects power supplies (e.g., SMPS, inverters) from startup surges.
2. Temperature Compensation & Sensing

Real-time monitoring in BMS, motor drives, and precision circuits.
3. Industrial Equipment

High-reliability protection for industrial PSUs, EV chargers, and OBC/DCDC converters.
4. Consumer Electronics

Over-current protection in high-power adapters and LED drivers.
5. Medical Devices

Ensures thermal stability in medical power systems.

Product Model Description

EKT	5650	N	2R5	M	5R0
Logo 品牌	Size 尺寸	Negative Temperature Coefficient NTC负温度系数	Rated Zero-Power Resistance 额定零功率电阻值	Accuracy Error 精度误差	Max. Steady State Current 最大稳态电流
	2220(5750)				
	3220(8050)		2R5=2.5Ω	K: 10%	3R0: 3A
	3225(8060)		100=10Ω	M: 20%	5R0: 5A
	4032(1008)		101=100Ω		100: 10A
	5650(1412)				

Temperature

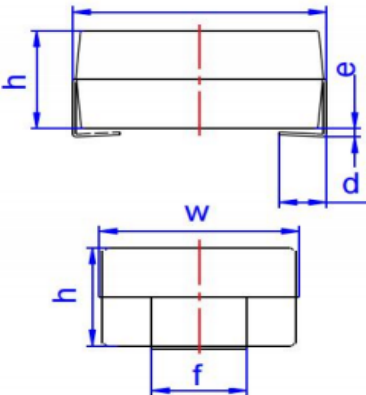
Parameter	Value	Unit
Operating temperature工作温度	-40 ~ +200	℃
Storage temperature存储温度	-10 ~ +40	℃
thermal time constant	≤90	S
Insulation resistance	≥16	mW/℃

Main Technical Parameters

尺寸型号Size : EKT5650(D-15)

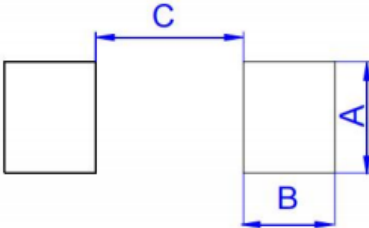
规格 PART NO.	额定电阻 ResistanceR25 (Ω)	最大稳态电流 Maximumsteady- statecurrent (A)	最大电流下残余电阻 Residual resistance (Ω)	Resistance B25/85 (K)	热时间常数 Thermal timeconstant (s)	耗散系数 Dissipation Coefficient (mW/℃)	工作温度 OperationTempe- rature (℃)
EKT5650N1R0M8R0	1	8	0.0638	2700	≤90	≥16	-40 ~ 200
EKT5650N1R3M8R0	1.3	8	0.083	2700			
EKT5650N1R5M8R0	1.5	8	0.084	2700			
EKT5650N2R5M7R0	2.5	7	0.135	2700			
EKT5650N3R0M7R0	3	7	0.136	2700			
EKT5650N4R0M6R0	4	6	0.199	2700			
EKT5650N4R7M6R0	4.7	6	0.149	2800			
EKT5650N5R0M6R0	5	6	0.127	2800			
EKT5650N6R0M5R0	6	5	0.188	2800			
EKT5650N6R8M5R0	6.8	5	0.190	3000			
EKT5650N7R0M5R0	7	5	0.191	3000			
EKT5650N8R0M5R0	8	5	0.201	3000			
EKT5650N100M5R0	10	5	0.209	3000			
EKT5650N120M4R0	12	4	0.267	3000			
EKT5650N150M4R0	15	4	0.305	3200			
EKT5650N160M4R0	16	4	0.306	3200			
EKT5650N180M4R0	18	4	0.338	3200			
EKT5650N200M4R0	20	4	0.347	3200			
EKT5650N220M4R0	22	4	0.381	3200			
EKT5650N250M3R0	25	3	0.433	3200			
EKT5650N300M3R0	30	3	0.519	3200			
EKT5650N330M3R0	33	3	0.571	3200			
EKT5650N400M3R0	40	3	0.587	3200			
EKT5650N470M3R0	47	3	0.690	3200			
EKT5650N500M3R0	50	3	0.734	3200			
EKT5650N600M3R0	60	3	0.881	3200			
EKT5650N800M2R0	80	2	1.175	3200			
EKT5650N101M1R5	100	1.5	1.469	3200			
EKT5650N121M1R5	120	1.5	1.763	3200			

Dimensional Drawings



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
I	13.8		14.3	0.543		0.563
w	11.6		11.8	0.457		0.465
h	4.4		4.6	0.173		0.181
d	1.2		1.6	0.047		0.063
e	0		0.3	0		0.012
f	10.8		11.6	0.409		0.457

Recommended Solder Pad Layout



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A		3.5			0.138	
B		1.5			0.059	
C		11.0			0.433	

EKT Plastic Thermistor PTC - 3220 Series

Product Features

- 1.Quick response to overload current, stable and reliable performance;
- 2.Strong impact resistance and long service life;
- 3.No polarity, both AC and DC are available;
- 4.Automatically recoverable;
- 5.The working current can reach tens of amperes;
- 6.Small size, convenient surface mounting, high efficiency

Application Scope

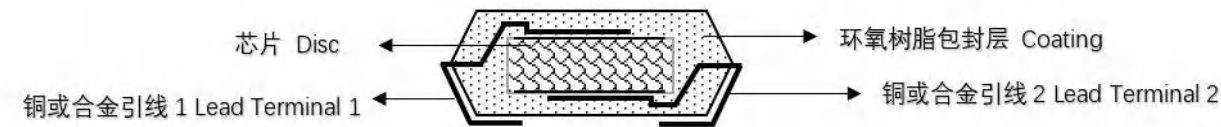
Applied in the overload overcurrent and short circuit protection of general circuit, e.g. transformers, micro motor, switches, switch power, battery charger, adaptor, meter, apparatus, electronic coils, control panels, home appliance, air conditioner, microwave oven, automotive electron, etc.



Product Model Description

EKT	3220	P	500	M	075
品牌 Logo	尺寸 Size	Positive Temperature Coefficient PTC正温度系数	Rated Zero-Power Resistance 额定零功率电阻值	Accuracy Error 精度误差	Max. Steady State Current 最大稳态电流
	2220(5750)		2R5=2.5Ω	K: 10%	003: 3mA
	3220(8050)		500=50Ω	M: 20%	075: 75mA
	3225(8060)		101=100Ω		120: 120mA
	4032(1008)		102=1000Ω		
			222-=2200Ω		

Product Components and Materials



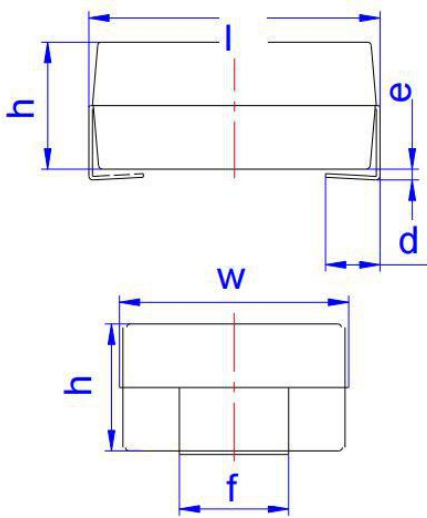
组件名称 Component Name	主材料 Main material
热敏电阻芯片 Thermistor wafer	BaTiO ₃
	Ag
无铅焊料 Lead Free Solder	SnAgCu
引线 Lead wire	CU
塑封体 Plastic sealing body	环氧树脂

Main Technical Parameters

尺寸型号Size: EKT3220

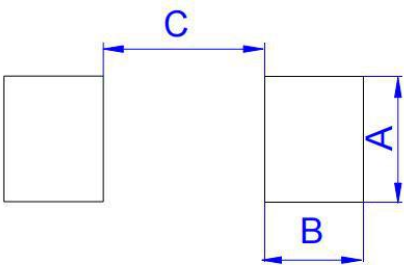
No. 序号	Part No. 产 品 编 号	Max. Non Operating Current at 60℃ 最大不动作电流 I _N (mA)	Trip Current at 25℃ 动作电流 I _T (mA)	Rated Zero Power Resistance 额定零功率电阻 R _N (Ω)	Max. Permissible Current at V _{Max} 最大许可电流 I _{Max} (A)	外形尺寸 Dimension (mm)			
						I _{Max}	W _{Max}	H ^{±0.05}	C ^{±1}
Max. Operating Vol. 最大工作电压 V _{Max} = 265V _{AC} ; Curie Temp. 居里温度 T _c = 80℃ ± 7℃									
1	EKT3220P222M002	2	8	2200 ± 20%	0.25	8.3	6.6	4.0	4.5
2	EKT3220P152M003	3	12	1500 ± 20%					
3	EKT3220P102M016	4	16	1000 ± 20%					
4	EKT3220P681M020	5	20	680 ± 20%					
5	EKT3220P471M024	6	24	470 ± 20%					
6	EKT3220P221M050	20	50	220 ± 20%	0.25	8.3	6.6	4.0	4.5
7	EKT3220P151M065	25	65	150 ± 20%					
8	EKT3220P101M075	30	75	100 ± 20%					

Dimensional Drawings



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
l	7.7		8.3	0.303		0.327
w	6.0		6.6	0.236		0.260
h	3.3		4.0	0.122		0.150
d	1.2		1.8	0.047		0.071
e	0		0.3	0		0.012
f	2.7		3.3	0.106		0.130

Recommended Solder Pad Layout



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A		3.5			0.138	
B		2.8			0.110	
C		4.5			0.177	

EKT Plastic Thermistor PTC - 4032 Series

Product Features

- 1.Quick response to overload current, stable and reliable performance;
- 2.Strong impact resistance and long service life;
- 3.No polarity, both AC and DC are available;
- 4.Automatically recoverable;
- 5.The working current can reach tens of amperes;
- 6.Small size, convenient surface mounting, high efficiency



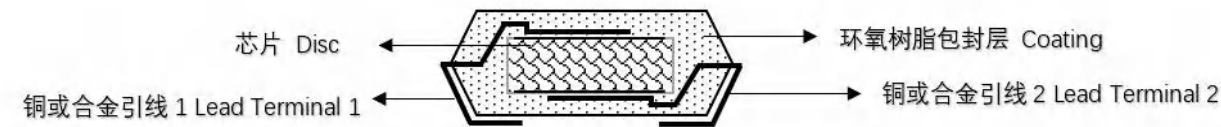
Application Scope

Applied in the overload overcurrent and short circuit protection of general circuit, e.g. transformers, micro motor, switches, switch power, battery charger, adaptor, meter, apparatus, electronic coils, control panels, home appliance, air conditioner, microwave oven, automotive electron, etc.

Product Model Description

EKT	4032	P	500	M	075
品牌 Logo	尺寸 Size	Positive Temperature Coefficient PTC正温度系数	Rated Zero-Power Resistance 额定零功率电阻值	Accuracy Error 精度误差	Max. Steady State Current 最大稳态电流
	2220(5750)		2R5=2.5Ω	K: 10%	003: 3mA
	3220(8050)		500=50Ω	M: 20%	075: 75mA
	3225(8060)		101=100Ω		120: 120mA
	4032(1008)		102=1000Ω		
			222-=2200Ω		

Product Components and Materials



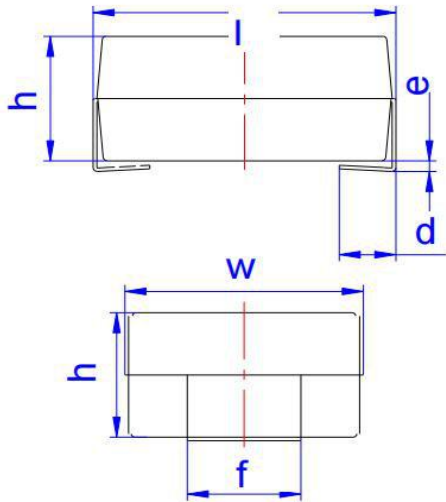
组件名称 Component Name	主材料 Main material
热敏电阻芯片 Thermistor wafer	BaTiO ₃
	Ag
无铅焊料 Lead Free Solder	SnAgCu
引线 Lead wire	CU
塑封体 Plastic sealing body	环氧树脂

Main Technical Parameters

尺寸型号Size: EKT4032

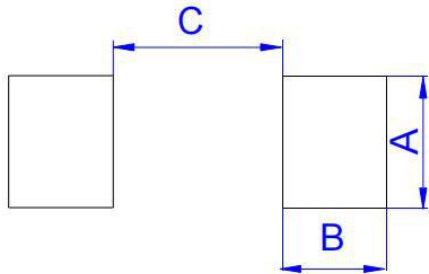
No. 序号	Part No. 产 品 编 号	Max. Non Operating Current at 60℃ 最大不动作电流 I _N (mA)	Trip Current at 25℃ 动作电流 I _T (mA)	Rated Zero Power Resistance 额定零功率电阻 R _N (Ω)	Max. Permissible Current at V _{Max} 最大许可电流 I _{Max} (A)	外形尺寸 Dimension (mm)			
						I _{Max}	W _{Max}	H ^{±0.05}	C ^{±1}
Max. Operating Vol. 最大工作电压 V _{Max} = 265V _{AC} ; Curie Temp. 居里温度 T _c = 105℃ ± 7℃									
15	EKT4032P221M025	25	65	220 ± 20%	0.30	10.7	8.3	4.0	6.5
16	EKT4032P151M030	30	75	150 ± 20%					
17	EKT4032P121M035	35	88	120 ± 20%					
18	EKT4032P101M040	40	100	100 ± 20%					
19	EKT4032P750M045	45	115	75 ± 20%					
20	EKT4032P680M050	50	125	68 ± 20%					
21	EKT4032P470M055	55	138	47 ± 20%	0.40	10.7	8.3	4.0	6.5
23	EKT4032P151M035	35	88	150 ± 20%					
24	EKT4032P101M045	45	115	100 ± 20%					
25	EKT4032P680M055	55	138	68 ± 20%					
Max. Operating Vol. 最大工作电压 V _{Max} = 265V _{AC} ; Curie Temp. 居里温度 T _c = 120℃ ± 7℃									
41	EKT4032P101M040	40	80	100 ± 20%	0.30	10.7	8.3	4.0	6.5
42	EKT4032P750M045	45	90	75 ± 20%					
43	EKT4032P620M050	50	100	62 ± 20%					
44	EKT4032P151M040	40	80	150 ± 20%	0.40	10.7	8.3	4.0	6.5
45	EKT4032P101M050	50	100	100 ± 20%					
46	EKT4032P680M060	60	120	68 ± 20%					

Dimensional Drawings



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
l	10.1		10.7	0.398		0.421
w	7.7		8.3	0.303		0.327
h	3.6		4.5	0.165		0.189
d	1.2		1.8	0.047		0.071
e	0		0.3	0		0.012
f	2.7		3.3	0.106		0.130

Recommended Solder Pad Layout



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A		3.5			0.138	
B		2.8			0.110	
C		6.5			0.265	

EKT DIP Thermistor (NTC)

xxD-5

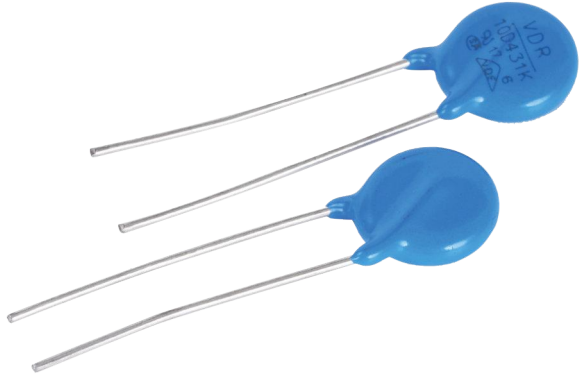
Part No.	Resistance @25°C (Ω)	Max.Stable Current (A)	Approx. Resistance at Maximum Current (Ω)	B _{25/85} (K)	Thermal Time Constant (s)	Dissipation Factor (mW/°C)	Operating Temperature (°C)	Safety certification			
								TUV	CQC	UL	CUL
5D-5	5	1	0.584	2700	≤18	≥6	-40 ~ 150	√	√	√	√
6D-5	6	0.7	0.675	2700				√			
7D-5	7	0.7	0.766	2700				√			
8D-5	8	0.7	0.857	2700				√			
10D-5	10	0.7	1.039	2700				√	√	√	√
12D-5	12	0.6	1.235	2800				√			
15D-5	15	0.6	1.530	2800				√	√	√	√
16D-5	16	0.6	1.628	2800				√			
18D-5	18	0.6	1.824	2800				√			
20D-5	20	0.6	2.020	2800				√	√	√	√
22D-5	22	0.6	2.060	2800				√	√	√	√
25D-5	25	0.5	2.123	2800				√			
30D-5	30	0.5	2.227	2800				√	√	√	√
33D-5	33	0.5	2.436	2800				√	√	√	√
50D-5	50	0.4	2.653	3000				√	√	√	√
60D-5	60	0.3	2.753	3000				√	√	√	√

PS: Unless otherwise specified, the resistance accuracy defaults to ± 20%.

xxD-7

Part No.	Resistance @25°C (Ω)	Max.Stable Current (A)	Approx. Resistance at Maximum Current (Ω)	B _{25/85} (K)	Thermal Time Constant (s)	Dissipation Factor (mW/°C)	Operating Temperature (°C)	Safety certification			
								TUV	CQC	UL	CUL
2.5D-7	2.5	3	0.195	2700	≤30	≥9	-40 ~ 150			√	√
3D-7	3	3	0.206	2700				√	√	√	√
4D-7	4	2	0.246	2700				√			
5D-7	5	2	0.286	2700				√	√	√	√
6D-7	6	2	0.436	2700				√			
7D-7	7	2	0.585	2700				√			
8D-7	8	1	0.735	2800				√	√	√	√
10D-7	10	1	0.789	2800				√	√	√	√
12D-7	12	0.7	1.180	2800				√	√	√	√
15D-7	15	0.7	1.465	3000				√			
16D-7	16	0.7	1.560	3000				√	√	√	√
18D-7	18	0.7	1.774	3000				√			
20D-7	20	0.6	1.988	3000				√	√	√	√
22D-7	22	0.6	1.950	3000				√	√	√	√
25D-7	25	0.5	2.609	3000				√			
30D-7	30	0.5	3.706	3000				√	√	√	√
33D-7	33	0.5	3.888	3000				√	√	√	√
50D-7	50	0.5	6.465	3000				√	√	√	√

PS: Unless otherwise specified, the resistance accuracy defaults to ± 20%.



xxD-9

Part No.	Resistance @25°C (Ω)	Max.Stable Current (A)	Approx. Resistance at Maximum Current (Ω)	B _{25/85} (K)	Thermal Time Constant (s)	Dissipation Factor (mW/°C)	Operating Temperature (°C)	Safety certification			
								TUV	CQC	UL	CUL
1.5D-9	1.5	4	0.1	2600	≤35	≥11	-40 ~ 170			√	√
2.5D-9	2.5	4	0.139	2700				√	√	√	√
3D-9	3	4	0.145	2700				√	√	√	√
4D-9	4	3	0.254	2700				√	√	√	√
5D-9	5	3	0.264	2700				√	√	√	√
6D-9	6	2	0.358	2700				√	√	√	√
7D-9	7	2	0.326	2800				√	√	√	√
8D-9	8	2	0.373	2800				√	√	√	√
10D-9	10	2	0.398	2800				√	√	√	√
12D-9	12	1	0.989	2800				√	√	√	√
15D-9	15	1	1.028	3000				√			
16D-9	16	1	1.041	3000				√	√	√	√
18D-9	18	1	1.107	3000				√			
20D-9	20	1	1.173	3000				√	√	√	√
22D-9	22	1	1.235	3000				√	√	√	√
25D-9	25	1	1.267	3000				√			
30D-9	30	1	1.320	3000				√	√	√	√
33D-9	33	1	1.431	3000				√	√	√	√
50D-9	50	1	1.480	3100				√	√	√	√
60D-9	60	0.8	1.641	3100				√	√	√	√
80D-9	80	0.8	2.187	3200				√	√	√	√
100D-9	100	0.8	2.734	3200				√			
120D-9	120	0.8	3.281	3200				√	√	√	√
200D-9	200	0.5	5.469	3200				√	√	√	√
400D-9	400	0.2	10.94	3300				√			

PS: Unless otherwise specified, the resistance accuracy defaults to ± 20%.

xxD-11

Part No.	Resistance @25°C (Ω)	Max.Stable Current (A)	Approx. Resistance at Maximum Current (Ω)	B _{25/85} (K)	Thermal Time Constant (s)	Dissipation Factor (mW/°C)	Operating Temperature (°C)	Safety certification			
								TUV	CQC	UL	CUL
1D-11	1	5	0.121	2600	≤55	≥13	-40 ~ 170	√	√	√	√
1.5D-11	1.5	5	0.126	2600				√	√	√	√
2D-11	2	5	0.141	2700				√			
2.2D-11	2.2	5	0.147	2700				√			
2.5D-11	2.5	5	0.156	2700				√	√	√	√
3D-11	3	5	0.170	2700				√	√	√	√
4D-11	4	4	0.200	2700				√	√	√	√
5D-11	5	4	0.205	2700				√	√	√	√
6D-11	6	3	0.298	2700				√	√	√	√
7D-11	7	3	0.282	2800				√	√	√	√
8D-11	8	3	0.259	2800				√	√	√	√
10D-11	10	3	0.268	2800				√	√	√	√
12D-11	12	2	0.347	2800				√	√	√	√
15D-11	15	2	0.485	3000				√	√	√	√
16D-11	16	2	0.500	3000				√	√	√	√
18D-11	18	2	0.545	3000				√			
20D-11	20	2	0.590	3000				√	√	√	√
22D-11	22	2	0.590	3000				√	√	√	√
25D-11	25	1.5	0.602	3000				√	√	√	√
30D-11	30	1.5	0.722	3000				√	√	√	√
33D-11	33	1.5	0.795	3000				√	√	√	√
47D-11	47	1.5	1.165	3200				√	√	√	√
50D-11	50	1.5	1.241	3200				√	√	√	√
60D-11	60	1	1.489	3200				√	√	√	√
80D-11	80	1	1.986	3200				√	√	√	√
100D-11	100	0.8	2.483	3200				√			
120D-11	120	0.8	2.979	3200				√	√	√	√
200D-11	200	0.6	4.965	3200				√			
400D-11	400	0.3	9.930	3300				√			

PS: Unless otherwise specified, the resistance accuracy defaults to ± 20%.

xxD-13

Part No.	Resistance @25°C (Ω)	Max.Stable Current (A)	Approx. Resistance at Maximum Current (Ω)	B _{25/85} (K)	Thermal Time Constant (s)	Dissipation Factor (mW/°C)	Operating Temperature (°C)	Safety certification			
								TUV	CQC	UL	CUL
1.3D-13	1.3	7	0.089	2700	≤70	≥13	-40 ~ 200	√	√	√	√
1.5D-13	1.5	7	0.089	2700				√	√	√	√
2.5D-13	2.5	6	0.108	2700				√	√	√	√
3D-13	3	6	0.145	2700				√	√	√	√
4D-13	4	5	0.146	2700				√	√	√	√
4.7D-13	4.7	5	0.147	2800				√	√	√	√
5D-13	5	5	0.150	2800				√	√	√	√
6D-13	6	4	0.211	2800				√	√	√	√
6.8D-13	6.8	4	0.228	3000				√			
7D-13	7	4	0.232	3000				√	√	√	√
8D-13	8	4	0.275	3000				√	√	√	√
10D-13	10	4	0.272	3000				√	√	√	√
12D-13	12	3	0.483	3000				√	√	√	√
15D-13	15	3	0.488	3100				√	√	√	√
16D-13	16	3	0.454	3100				√	√	√	√
18D-13	18	3	0.511	3200				√	√	√	√
20D-13	20	3	0.568	3200				√	√	√	√
22D-13	22	3	0.581	3200				√	√	√	√
25D-13	25	2	0.625	3200				√	√	√	√
30D-13	30	2	0.696	3200				√	√	√	√
33D-13	33	2	0.765	3200				√	√	√	√
47D-13	47	2	1.091	3200				√	√	√	√
50D-13	50	2	1.161	3200				√	√		
60D-13	60	2	1.392	3200				√	√		
80D-13	80	1.5	1.856	3200				√	√		
100D-13	100	1	2.321	3200				√			
120D-13	120	1	2.785	3200				√	√	√	√

PS: Unless otherwise specified, the resistance accuracy defaults to ± 20%.

xxD-15

Part No.	Resistance @25°C (Ω)	Max.Stable Current (A)	Approx. Resistance at Maximum Current (Ω)	B25/85 (K)	Thermal Time Constant (s)	Dissipation Factor (mW/°C)	Operating Temperature (°C)	Safety certification			
								TUV	CQC	UL	CUL
1.3D-15	1.3	8	0.083	2700	≤90	≥16	-40 ~ 200	√	√	√	√
1.5D-15	1.5	8	0.084	2700				√	√	√	√
2.5D-15	2.5	7	0.135	2700				√	√	√	√
3D-15	3	7	0.136	2700				√	√	√	√
4D-15	4	6	0.199	2700				√	√	√	√
4.7D-15	4.7	6	0.149	2800				√			
5D-15	5	6	0.127	2800				√	√	√	√
6D-15	6	5	0.188	2800				√	√	√	√
6.8D-15	6.8	5	0.190	3000				√			
7D-15	7	5	0.191	3000				√	√	√	√
8D-15	8	5	0.201	3000				√	√	√	√
10D-15	10	5	0.209	3000				√	√	√	√
12D-15	12	4	0.267	3000				√	√	√	√
15D-15	15	4	0.305	3200				√	√	√	√
16D-15	16	4	0.306	3200				√	√	√	√
18D-15	18	4	0.338	3200				√	√	√	√
20D-15	20	4	0.347	3200				√	√	√	√
22D-15	22	4	0.381	3200				√	√	√	√
25D-15	25	3	0.433	3200				√	√	√	√
30D-15	30	3	0.519	3200				√	√	√	√
33D-15	33	3	0.571	3200				√	√	√	√
40D-15	40	3	0.587	3200				√	√	√	√
47D-15	47	3	0.690	3200				√	√	√	√
50D-15	50	3	0.734	3200				√	√		
60D-15	60	3	0.881	3200				√	√		
80D-15	80	2	1.175	3200				√			
100D-15	100	1.5	1.469	3200				√			
120D-15	120	1.5	1.763	3200				√	√	√	√

PS: Unless otherwise specified, the resistance accuracy defaults to ± 20%.

xxD-20

Part No.	Resistance @25°C (Ω)	Max.Stable Current (A)	Approx. Resistance at Maximum Current (Ω)	B25/85 (K)	Thermal Time Constant (s)	Dissipation Factor (mW/°C)	Operating Temperature (°C)	Safety certification			
								TUV	CQC	UL	CUL
0.7D-20	0.7	11	0.105	2700	≤120	≥20	-40 ~ 200	√	√	√	√
1D-20	1	10	0.111	2700				√	√	√	√
1.3D-20	1.3	9	0.131	2700				√	√	√	√
2.2D-20	2.2	8	0.129	2800				√	√	√	√
2.5D-20	2.5	8	0.147	2800				√	√	√	√
3D-20	3	8	0.152	2800				√	√	√	√
4D-20	4	7	0.155	3000				√			
5D-20	5	7	0.158	3000				√	√	√	√
6D-20	6	6	0.189	3000				√	√	√	√
6.8D-20	6.8	6	0.192	3000				√			
7D-20	7	6	0.193	3000				√			
8D-20	8	6	0.198	3000				√	√	√	√
10D-20	10	6	0.210	3000				√	√	√	√
12D-20	12	5	0.213	3200				√	√	√	√
15D-20	15	5	0.219	3200				√			
16D-20	16	5	0.221	3200				√	√	√	√
18D-20	18	4	0.249	3200				√			
20D-20	20	4	0.277	3200				√	√	√	√
25D-20	25	4	0.347	3200				√			
30D-20	30	4	0.416	3200				√	√		
33D-20	33	4	0.450	3200				√	√		
50D-20	50	4	0.681	3200				√			
60D-20	60	4	0.817	3200				√	√		

PS: Unless otherwise specified, the resistance accuracy defaults to ± 20%.

xxD-25

Part No.	Resistance @25°C (Ω)	Max.Stable Current (A)	Approx. Resistance at Maximum Current (Ω)	B25/85 (K)	Thermal Time Constant (s)	Dissipation Factor (mW/°C)	Operating Temperature (°C)	Safety certification			
								TUV	CQC	UL	CUL
0.5D-25	0.5	12	0.041	2700	≤160	≥27	-40 ~ 200	√			
0.7D-25	0.7	12	0.058	2700				√		√	√
1D-25	1	11	0.083	2700				√		√	√
1.3D-25	1.3	10	0.108	2700				√			
1.5D-25	1.5	10	0.125	2700				√			
2.2D-25	2.2	9	0.132	2800				√			
2.5D-25	2.5	9	0.135	2800				√		√	√
3D-25	3	9	0.153	2800				√		√	√
4D-25	4	8	0.158	3000				√			
5D-25	5	8	0.162	3000				√		√	√
6D-25	6	7	0.177	3000				√			
7D-25	7	7	0.193	3000				√			
8D-25	8	7	0.208	3000				√		√	√
10D-25	10	7	0.259	3000				√		√	√
12D-25	12	6	0.311	3200				√			
15D-25	15	6	0.389	3200				√			
16D-25	16	6	0.415	3200				√			
18D-25	18	6	0.467	3200				√			
20D-25	20	5	0.519	3200				√			
25D-25	25	5	0.648	3200				√			
30D-25	30	5	0.778	3200				√			
33D-25	33	5	0.856	3200				√			
50D-25	50	5	1.297	3200				√			
60D-25	60	5	1.556	3200				√			

PS: Unless otherwise specified, the resistance accuracy defaults to ± 20%.

EKT DIP Temerature Sensor

MF58系列
SERIES

FOR TEMPERATURE
MEASUREMENT
AND CONTROL

用于温度测量及控制

特点 | FEATURES

1.MF58系列产品为轴向引线玻璃封装型

2.稳定性好、可靠性高

3.阻值范围宽：0.1~5000KΩ

4.阻值及B值精度高

5.玻璃封装，可在高温和高湿等恶劣环境下使用

6.体积小、结构坚固、便于自动化安装

7.使用温度范围-40℃~250℃

8.热感应快、灵敏度高等

1.MF58seriesin theform of axialglassencapsulated form.

2.Goodstability,high reliability.

3.Wideresistance range：0.1~5000KΩ

4.High precisionresistanceand Bvalue.

5.Glassencapsulated,canoperatein high temperatureand moistureenvironment.

6.Smalldimension,solid,convenient for automaticinstallation.

7.Operating temperaturerange: -40℃~250℃

8.Fastheatinduction,high sensitivity.

应用范围 | APPLICATION

- 1.电磁炉、电压力锅、电饭煲、电烤箱、消毒柜、饮水机、微波炉、电取暖炉等家用电器的温度控制及温度检测

2.办公自动化设备(如复印机、打印机等)的温度检测及温度补偿

3.工业、医疗、环保、气象、食品加工设备的温度控制与检测

4.充电电池组及充电器的温度保护

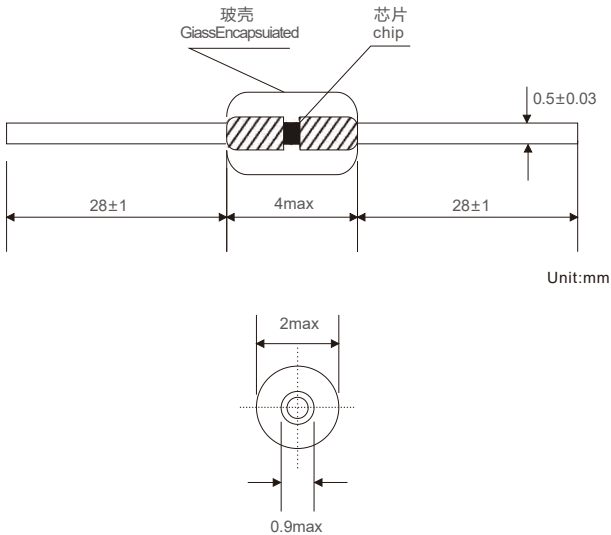
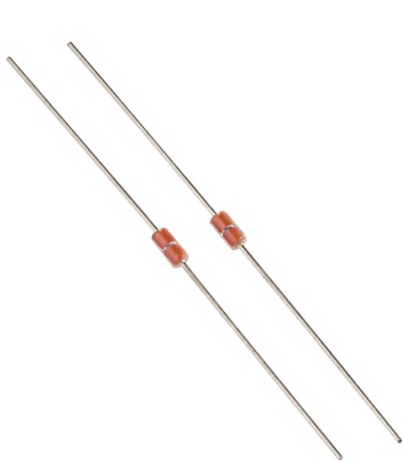
5.仪表线圈、集成电路、石英晶体振荡器和热电偶的温度补偿
- 1.Homeappliancetemperaturecontrol and inspection,such asinduction cooker,voltageboiler,ricedcooker,electriccoven,disinfection tank,microwaveoven,electricwarm kiln.

2.Temperaturemeasurementand compensation of officeautomation equipment,such ascopier,printer,etc.

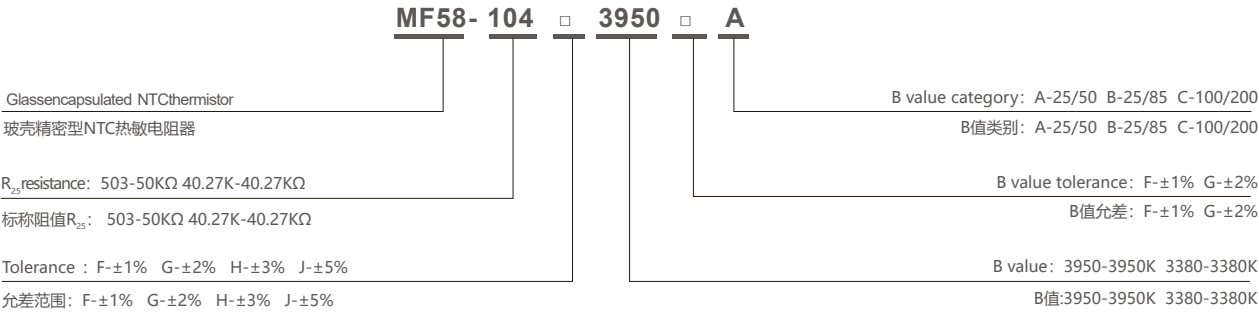
3.Temperaturemeasurementand inspection of industry,medical,environment protection,weather forecast,food processingequipment,etc

4.Temperatureprotection of battery packand battery charger.

5.Temperaturecompensation of instrument loop,integrated circuit,crystal oscillator and thermocouple.



产品型号说明 | MARKING OF PART NUMBER



规格表 | SPEC.Table

Part Number 型号	Resistance @25 额定电阻值(R ₂₅)		B Value B值		Specific parameters 特定参数 (KΩ)	Operating Temperature 工作温度 (°C)	Dissipation Factor 耗散系数 (mW/°C)	Thermal Time Constant 热时间常数 (S)
	Resistance 电阻值(KΩ)	Tolerance 允许偏差(±%)	B Value 标称值(K)	Tolerance 允许偏差(±%)				
MF58-202□ 3839□ (5/25)	2	1、2、3、5	3839	0.5、1、2	R ₀ =5.06	-40°C ~ +250°C	≥ 2.0	≤12
MF58-202□ 3771□ (-18/25)	2		3771		R ₁₀₀ =16.9			
*MF58-502□ 3470□ A	5		3470					
*MF58-502□ 3950□ A	5		3950					
MF58-5.369K□ 3480□ B	5.369		3480		R ₀ =15			
*MF58-103□ 3380□ A	10		3380					
*MF58-103□ 3435□ B	10		3435					
*MF58-103□ 3470□ A	10		3470					
*MF58-103□ 3600□ A	10		3600					
*MF58-103□ 3700□ A	10		3700					
*MF58-103□ 3950□ A	10		3950					
*MF58-103□ 3975□ B	10		3975					
*MF58-103□ 4100□ A	10		4100					
*MF58-203□ 3950□ A	20		3950					
*MF58-303□ 3950□ A	30		3950					
*MF58-233□ 4200□ A	23		4200					
*MF58-40.27K□ 3979□ B	40.27		3979					
*MF58-473□ 3950□ A	47		3950					
MF58-49.12K□ 3970□ (0/100)	49.12		3970		R ₁₀₀ =3.3			
*MF58-503□ 3950□ A	50		3950					
*MF58-503□ 4050□ A	50		4050					
*MF58-98.75K□ 4300□ C	98.75		4300		R ₁₀₀ =0.55			
MF58-98.63K□ 4300□ C	98.63		4300		R ₁₀₀ =0.55			
*MF58-104□ 3899□ A	100		3899					
MF58-104□ 3930□ A	100		3930					
*MF58-104□ 3950□ A	100		3950					
*MF58-104□ 3990□ A	100		3990					
*MF58-104□ 4200□ A	100		4200					
*MF58-204□ 3899□ A	200		3899		R ₁₀₀ =3.0			
*MF58-204□ 4200□ A	200		4200					
*MF58-204□ 4260□ A	200		4260					
MF58-231.5K□ 4537□ C	231.5		4537		R ₁₀₀ =1.0			
*MF58-504□ 4260□ A	500		4260					
MF58-504□ 4050□ A	500		4050					
*MF58-1.388M□ 4500□ A	1388		4500		R ₁₀₀ =4.0			

注：
1、第一方框填标称阻值的精度代号，第二方框填写B值的精度代号。
Note
1、First □ for filling in resistance tolerance code name,second □ for filling in B value tolerance。Code name 。

MF58D系列

SERIES

FOR TEMPERATURE

MEASUREMENT

AND CONTROL

用于温度测量及控制

特点

FEATURES

- 1.MF58D系列产品为径向引线单端玻璃封装型

2.稳定性好、可靠性高

3.阻值范围宽：2~5000KΩ

4.阻值及B值精度高

5.玻璃封装，可在高温和高湿等恶劣环境下使用

6.体积小、结构坚固、便于自动化安装

7.使用温度范围-40 ~ +300℃

8.热感应快、灵敏度高等
- 1.MF58Dseriesin the form of radial glassencapsulated form

2.Goodstability,high reliability

3.Wideresistance range：2~5000KΩ

4.High precision resistanceand Bvalue

5.Glassencapsulated,canoperatein high temperature and moisture environment

6.Smalldimension,solid,convenient for automaticinstallation

7.Operating temperature range: -40~ +300℃

8.Fastheatinduction,high sensitivity

应用范围

APPLICATION

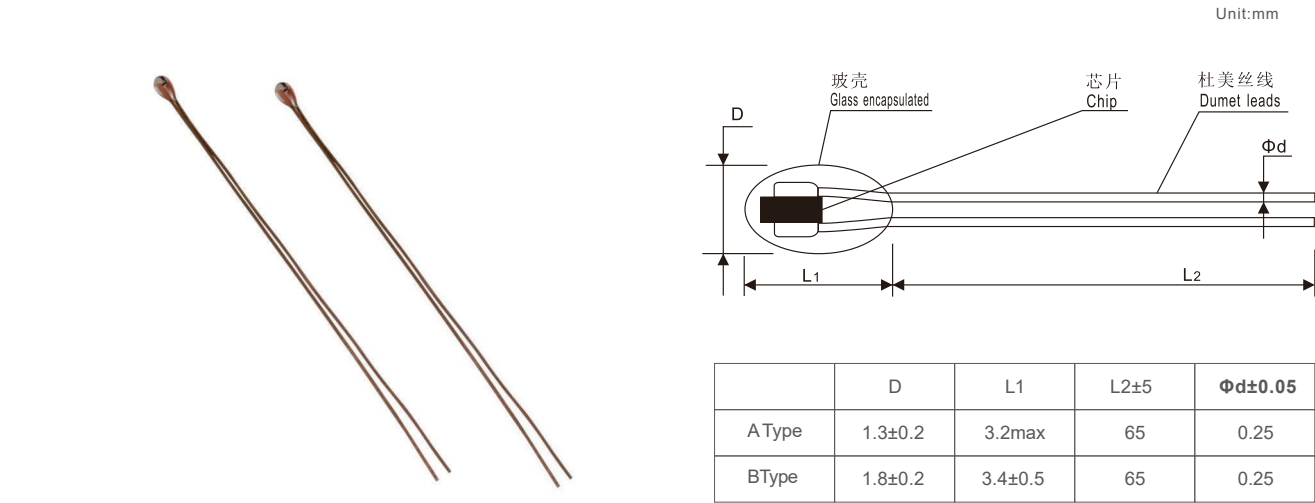
- 1.电磁炉、电压力锅、电饭煲、电烤箱、消毒柜、微波炉、电取暖炉等家用电器的温度控制及温度检测

2.数显温度计：如烧烤叉、温控器

3.工业、医疗、环保、气象、食品加工设备的温度控制与检测
- 1.Homeappliancecetemperaturecontrol and inspection,such asinduction cooker,voltage boiler,riccooker,electricoven,disinfection tank,microwaveoven,electricwarm kiln.

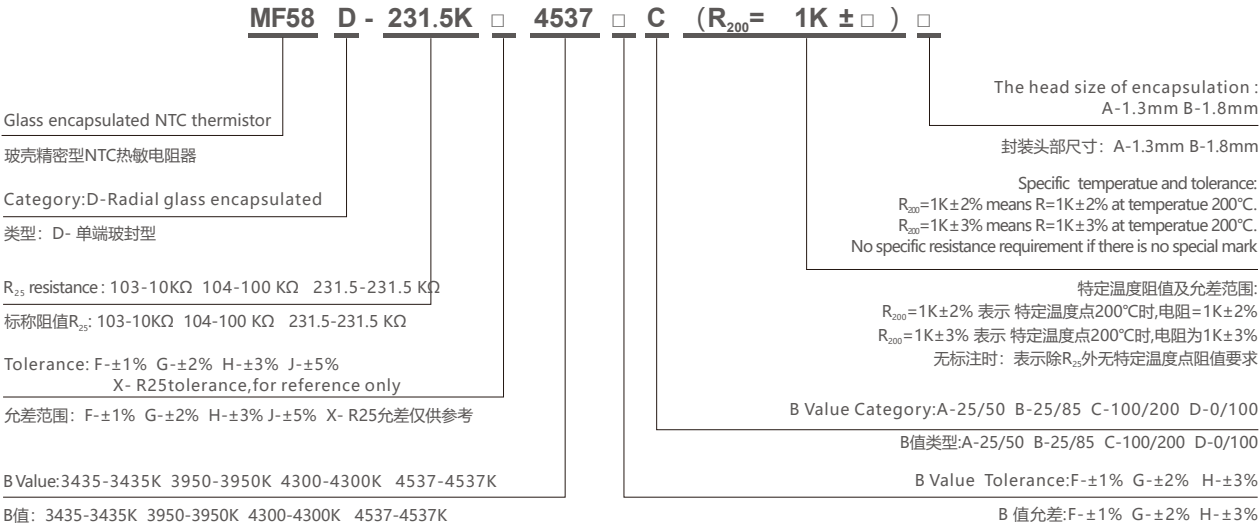
2.Digital thermometor :such I likebarbecuefork temperature controller

3.Temperaturemeasurementand inspection for theapplication of industry,medical , environment protection,weather forecast,food processingequipment,etc



产品型号说明

MARKING OF PARTNUMBER



规格表

SPEC.Table

Part Number 型号	Resistance @25 额定电阻值(R ₂₅)		B Value B值		Specific parameters 特定参数 (KΩ)	Operating Temperature 工作温度 (°C)	Dissipation Factor 耗散系数 (mW/°C)	Thermal Time Constant 热时间常数 (S)
	Resistance 电阻值(KΩ)	Tolerance 允许偏差(±%)	B Value 标称值(K)	Tolerance 允许偏差(±%)				
MF58D-2.186K□3420□B (R _G =6K±□)□	2.186	1、2、3、5	3420	1、2、3	R _G =6.0	-40℃~ +300℃	≥2.0	≤6.5
MF58D-8.53K□3450□D (R _{G0} =3.485K±□)□	8.53		3450		R _{G0} =3.485			
MF58D-103□3950□A□	10		3950					
MF58D-103□3435□B□	10		3435					
MF58D-49.12K□3970□D (R ₁₀₀ =3.3K±□)□	49.12		3970		R ₁₀₀ =3.3			
MF58D-503□3950□A□	50		3950					
MF58D-503□4036□D□	50		4036					
MF58D-98.63K□4300□C (R ₂₀₀ =0.55K±□)□	98.63		4300		R ₂₀₀ =0.55			
MF58D-104□3950□A□	100		3950					
MF58D-104□4200□A□	100		4200					
MF58D-204□3899□A (R ₁₇₅ =2.109K±□)□	200		3899		R ₁₇₅ =2.109			
MF58D-231.5K□4537□C (R ₂₀₀ =1K±□)□	231.5		4537		R ₂₀₀ =1.0			

注1：当有除R₂₅以外特定温度点阻值要求时, 第一方框填写标称阻值的精度代号, 第二方框填写B值的精度代号, 第三个方框填写关键温度阻值允差范围, 第四个方框填写封装头部尺寸大小代号。

Note 1: When specific temperature resistance required which except R25,The first box to fill in the code number of the resistance, The second box to fill in the code number of the B value, The third box to fill in the critical temperature resistance tolerance range ,The fourth box to fill the code number of the head size of encapsulation.

注2：当无特定温度点阻值要求时, 第一方框填写标称阻值的精度代号, 第二方框填写B值的精度代号,第三个方框填写封装头部尺寸大小代号。

Note 2: When no specific temperature resistance required, The first box to fill in the code number of the resistance, The second box to fill in the code number of the B value, The third box to fill the code number of the head size of encapsulation.

注3：以上所有型号额定功率≤25mW。

Note 3: The rated power ≤25mW for all of the above part numbers.

MF52B/E/D

系列
SERIES

FOR TEMPERATURE MEASUREMENT AND CONTROL

用于温度测量及控制

特点 | FEATURES

- 1.MF52系列产品为径向引线树脂涂装型

2.阻值范围宽：0.1~500KΩ

3.阻值及B值精度高

4.测试精度高

5.体积小、反应速度快

6.一致性好

7.能长时间稳定工作

8.使用温度范围-40 ~ +125℃
- 1.MF52 seriesin the form of radial resincoated form

2.Wide resistance range:0.1~500KΩ

3.High precision resistance and Bvalue

4.High measurement precision

5.Small dimension,fast response

6.Good consistency

7.Can operatein long timestability

8.Operating temperature range:-40 ~ +125℃

应用范围 | APPLICATION

- 1.空调、冰箱、冰柜、豆浆机、面包机、饮水机等家用电器

2.医疗仪器

3.温控仪表

4.电子礼品

5.电子温湿度计

6.汽车测温

7.电子万年历

8.充电电池组及充电器
- 1.Home appliancesuch asair conditioner,refrigerator,deep freezer,soybeanmilk machine,bread machine,drinking machine

2.Medical equipment and apparatus

3.Temperaturecontrol instrument

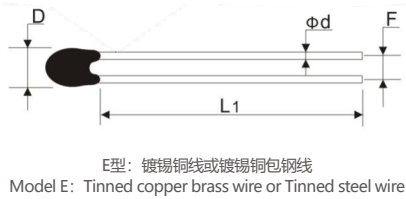
4.Electronic present

5.Electronic temperaturehumidity meter

6.Automobile temperaturemeasurement

7.Electronic tablecalendar

8.Battery packand battery charger



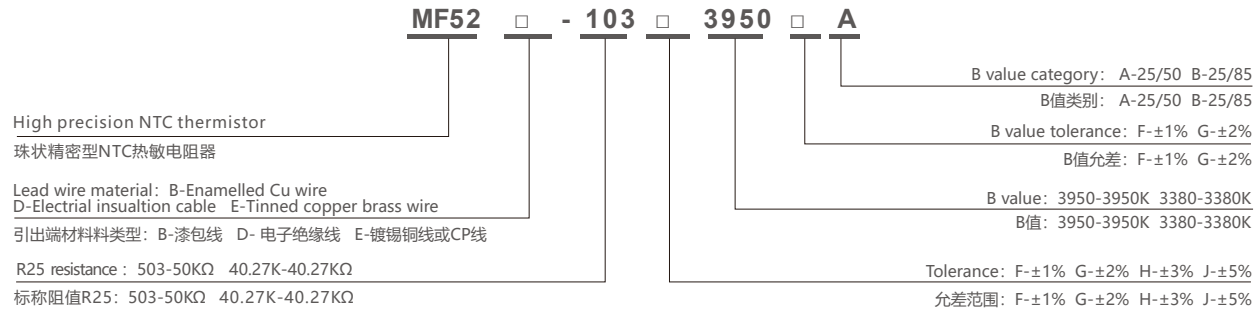
Unit:mm



Dmax	2.8
L1min	20
Φd±0.05	0.4
F±0.05	2.0

	D1	D2
Dmax	3.3	2.6
L1max	8.0	6.0
L2max	依用户确定	依用户确定
Φd±0.05	依用户确定	依用户确定
L3±1	3or5	3or5

产品型号说明 | MARKING OF PART NUMBER



规格表 | SPEC.Table

Part Number 型号	Resistance @25 额定电阻值(R ₂₅)		B Value B值		Rated power 额定功率 (mW)	Operating Temperature 工作温度 (℃)	Dissipation Factor 耗散系数 (mW/℃)	Thermal Time Constant 热时间常数 (S)
	Resistance 电阻值(KΩ)	Tolerance 允许偏差(±%)	B Value 标称值(K)	Tolerance 允许偏差(±%)				
MF52□-102□ 3950□A	1	1、2、3、5	3950	0.75、1、2	≤50	-40℃~ +125℃	≥ 3.0	≤12
*MF52□-202□3470□A	2		3470					
*MF52□-202□3550□A	2		3550					
MF52□-202□ 3580□A	2		3580					
MF52□-202□ 3950□A	2		3950					
MF52□-212□ 3560□(25/100)	2.1		3560					
*MF52□-2.252K□3935□ A	2.252		3935					
MF52□-2.78K□4170□ A	2.78		4170					
MF52□-302□ 4090□B	3		4090					
MF52□-332□ 3950□A	3.3		3950					
*MF52□-472□3950□A	4.7		3950					
*MF52□-502□3470□A	5		3470					
*MF52□-502□3950□A	5		3950					
*MF52□-682□3977□B	6.8		3977					
MF52□-682□ 4200□A	6.8		4200					
*MF52□-103□3380□A	10		3380					
*MF52□-103□3435□B	10		3435					
*MF52□-103□3470□A	10		3470					
MF52□-103□ 3450□B	10		3450					
*MF52□-103□3950□A	10		3950					
*MF52□-103□3977□B	10		3977					
*MF52□-103□4100□A	10		4100					
*MF52□-153□3950□A	15		3950					
*MF52□-203□3950□A	20		3950					
*MF52□-233□4200□A	23		4200					
MF52□-303□ 3950□A	30		3950					
*MF52□-40.27K□3979□ B	40.27		3979					
*MF52□-473□3950□A	47		3950					
*MF52□-49.12K□3979□ B	49.12		3979					
*MF52□-503□3950□A	50		3950					
*MF52□-503□3990□A	50		3990					
*MF52□-503□4050□A	50		4050					
*MF52□-104□3950□A	100		3950					
*MF52□-104□3990□A	100		3990					
*MF52□-104□4200□A	100		4200					
*MF52□-154□4370□B	150		4370					
*MF52□-105□4730□A	1000		4730					

注：

1、第一方框填写引线类型，第二方框填标称阻值的精度代号，第三方框填写B值的精度代号。

Note

1、First□□for filling in lead wiretype, second□ for filling in resistancetolerancecodename,third□ forfillinginBvaluetolerance Codename.

MF52B/E高精度医疗系列

SERIES

NTC THERMISTOR

FOR MEDICAL

医疗用NTC热敏电阻器

特点

FEATURES

- 1.KANGTAI 医疗用温度传感器可精确测量人体温度，且价格低廉，其产品广泛应用于医学导管中，不需校准仍能提供高精度

2.精度高，可达±0.1℃

3.阻值及B值精度高

4.体积小、反应速度快

5.可靠性高

6.能长时间稳定工作

7.高性价比客户化设计

8.可提供标准一次性医用温度探头的多种组装模式，设计包括与YSI 400系列兼容监测应用于食道管、导尿管、直肠导管以及体表体温检测的温度探头
- 1.KANGTAI temperature sensor can accurately measure the body temperature for medical use, and the price is low, its products are widely used in medical catheter, without calibration can still provide high accuracy

2.High accuracy tolerances to ±0.1℃

3.High precision of resistance and B value

4.Small dimension ,fast response

5.High reliability

6.Can Operate in long time stability

7.Cost-effective custom design

8.Can provide a variety of assembly model of standard disposable medical temperature sensor, design including compatible with YSI 400 series monitoring used in the esophagus tube, catheter, rectal tube, and the temperature detecting probe for the body surface temperature

应用范围

APPLICATION

- 1.皮肤/体腔/体温测量

2.成人/儿童食管和直肠/空气/皮肤温度监测

3.医疗设备、卫生监测

4.一次性和可重复使用的医疗温度探头

5.鼓膜温度探针、导尿管温度传感器、皮肤温度传感器、食道听诊器等高精度医疗温度传感器的制作

6.电子体温计
- 1.Skin/body cavity temperature measurement

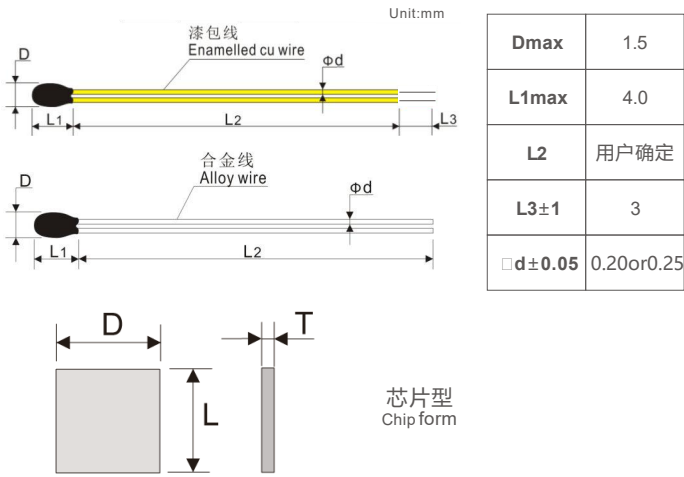
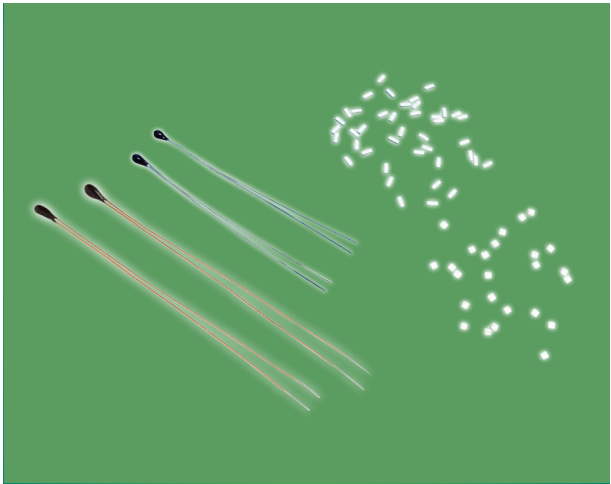
2.Adult/child esophagus and rectum/air/skin temperature monitoring

3.Medical equipment, health surveillance

4.The disposable and reusable medical temperature sensor

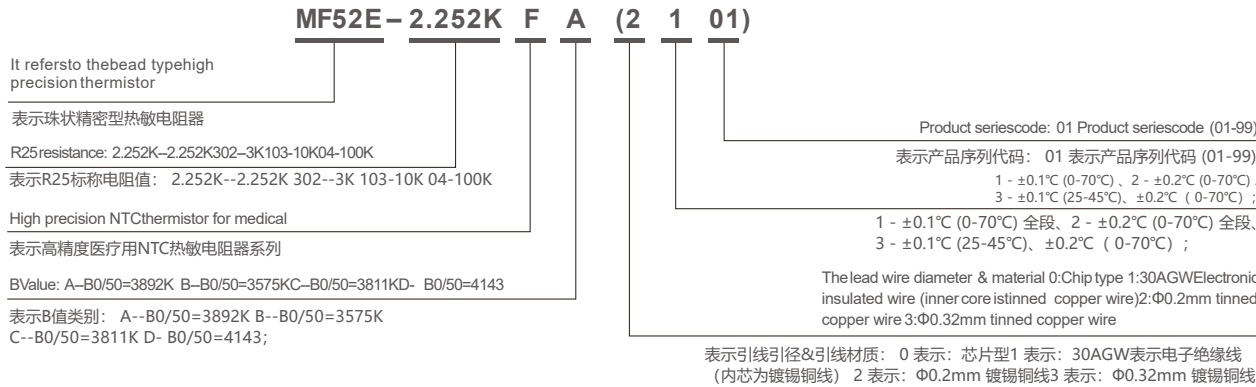
5.High precision medical temperature sensor manufacturing for tympanic membrane temperature probe, catheter temperature sensors, skin temperature sensors, esophageal stethoscopes

6.Electronic thermometer



产品型号说明

MARKING OF PART NUMBER



规格表

SPEC.Table

Part Number 型号	Resistance @25 额定电阻值(R ₂₅)		B Value B值		Operating Temperature 工作温度 (℃)	Dissipation Factor 耗散系数 (mW/℃)	Thermal Time Constant 热时间常数 (S)
	Resistance 电阻值(KΩ)	Tolerance 允许偏差(±%)	B Value 标称值(K)	Tolerance 允许偏差(±%)			
MF52□-2.252K□3892□G	2.252	A-±0.1℃ B-±0.2℃ C-±0.5℃ D-±0.5% F-±1%	B _{0/50} =3892	0.5 1	0℃~+70℃	≥2	≤3.5
MF52□-302□3892□G	3.000		B _{0/50} =3892				
MF52□-502□3892□G	5.000		B _{0/50} =3892				
MF52□-103□3892□G	10.000		B _{0/50} =3892				
MF52□-103□3575□G	10.000		B _{0/50} =3575				
MF52□-303□3811□G	30.000		B _{0/50} =3811				
MF52□-303□4143□G	30.000		B _{0/50} =4143				
MF52□-503□4143□G	50.000		B _{0/50} =4143				
MF52□-104□4143□G	100.000	D-±0.5% F-±1%	B ₂₉₈₀ =3435	0.5 1	-40℃~+105℃	≥0.7	≤6
MF52B-103□3435□B	10.000		B ₂₉₈₀ =3977				
MF52B-103□3977□B	10.000		B ₂₉₈₀ =3950				
MZ52B-503□3950□A(R ₂₅ =30KΩ)	50.000						

- 注：
- 第一个方框填写产品类别，第二个方框填写标称阻值的精度代号，第三个方框填写B值的精度代号。
 - 规格表中参数根据尺寸不同，其耗散系数和热时间参数不同，具体见详细的技术规格书。
 - 可提供标准一次性医用温度探头的多种组装模式，设计包括与YSI 400系列兼容监测应用于食道管、导尿管、直肠导管以及体表体温检测的温度探头的高精度医疗用温度传感器（下图所示），也可按照客户要求定制。
- Note:
- The first box to fill product category, The second box to fill the tolerance of resistance, The third box to fill the tolerance of B value.
 - The specification is made according to its size, dissipation factor and thermal time. The details please refer to technical specification.
 - Can provide high precision medical sensor with a variety of assembly model of standard disposable medical temperature sensor, design including compatible with YSI 400 series monitoring used in the esophagus tube, catheter, rectal tube, and the body surface temperature detecting probe (shown below), can also be customized according to customer requirements

高精度医疗用温度传感器

High accuracy temperature sensor for Medical



MF72系列

SERIES

FORLIMITING

SURGE CURRENT

用于抑制浪涌电流

特点

FEATURES

- 1.MF72系列产品为径向引线树脂涂装型

2.体积小，功率大，抑制浪涌电流能力强

3.反应速度快

4.材料常数（B值）大，残余电阻小

5.寿命长，可靠性高

6.产品规格齐全，工作范围宽

7.工作温度-55~+200℃
- 1.MF72seriesin theform of radial resin coated form

2.Smalldimension,powerful,strong in inrush current limiting

3.Fast response

4.Large material constant,lower residue resistance

5.Longlife,high reliability

6.Completepart,wideoperation range

7.Operating temperature-55~+200℃

应用范围

APPLICATION

- 1.转换电源、开关电源、UPS电源

2.电子节能灯、电子镇流器

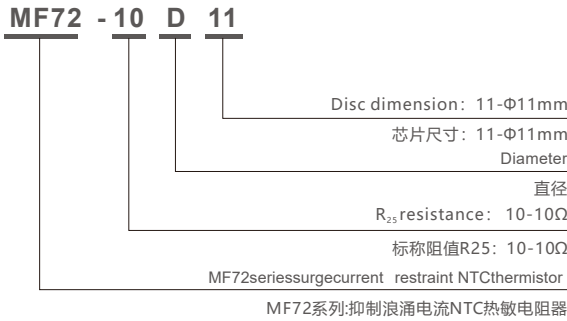
3.电子线路、电源线路等
- 1.Conversion power,switch modepower supply,UPSpower

2.Energy saving lights,ballast

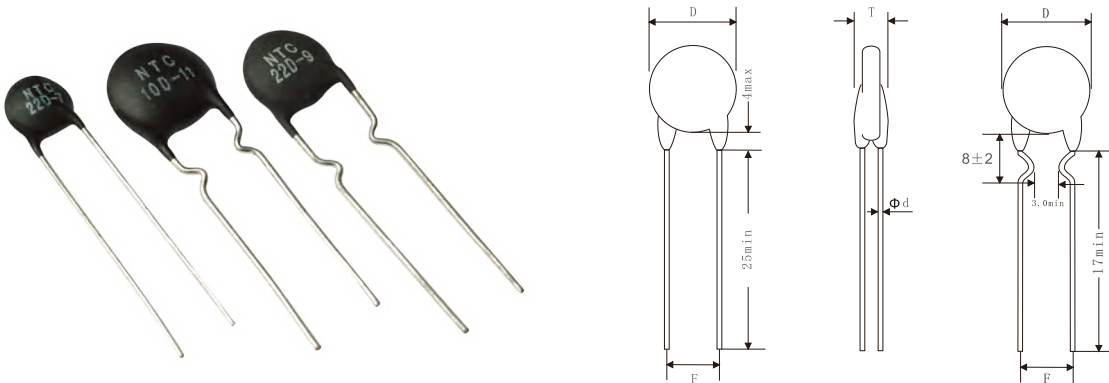
3.Electroniccircuit,power supply circuit

产品型号说明

MARKING OF PARTNUMBER



Unit:mm



规格表 | SPEC.Table

Part Number 型号	Resistance @25℃ 额定电阻值 R ₂₅ (Ω)	Max.Stable Current 最大稳态电流 (A)	Approx. Resistance at Maximum Current 最大电流时近 似电阻值 (Ω)	Dissipation Factor 耗散系数 (mW/℃)	Thermal Time Constant 热时间常数 (s)	Operating Temperature 工作温度 (℃)	Dimensions 外形尺寸(mm)			
							D±2	Tmax	F±1	Φd
MF72-5D5	5	1	0.353	6	20	-55~+200	6.5	5	5/2.5	0.6/0.45
MF72-10D5	10	0.7	0.771	6	20		6.5	5	5/2.5	0.6/0.45
MF72-60D5	60	0.5	1.878	6	18		6.5	5	5/2.5	0.6/0.45
MF72-200D5	200	0.1	6.259	6	18		6.5	5	5/2.5	0.6/0.45
MF72-5D7	5	2	0.283	10	30		8.5	5	5	0.6
MF72-8D7	8	1	0.539	9	28		8.5	5	5	0.6
MF72-10D7	10	1	0.616	9	27		8.5	5	5	0.6
MF72-22D7	22	0.6	1.108	9	27		8.5	5	5	0.6
MF72-33D7	33	0.5	1.485	10	28		8.5	5	5	0.6
MF72-200D7	200	0.2	6.233	11	28		8.5	5	5	0.6
MF72-3D9	3	4	0.120	11	35		10.5	5.5	7.5/5	0.8/0.6
MF72-5D9	5	3	0.210	11	34		10.5	5.5	7.5/5	0.8/0.6
MF72-8D9	8	2	0.400	11	32		10.5	5.5	7.5/5	0.8/0.6
MF72-10D9	10	2	0.458	11	32		10.5	5.5	7.5/5	0.8/0.6
MF72-16D9	16	1	0.802	11	31		10.5	5.5	7.5/5	0.8/0.6
MF72-20D9	20	1	0.864	11	30		10.5	5.5	7.5/5	0.8/0.6
MF72-22D9	22	1	0.950	11	30		10.5	5.5	7.5/5	0.8/0.6
MF72-33D9	33	1	1.124	11	30		10.5	5.5	7.5/5	0.8/0.6
MF72-60D9	60	0.8	1.502	11	30		10.5	5.5	7.5/5	0.8/0.6
MF72-200D9	200	0.5	5.007	11	32		10.5	5.5	7.5/5	0.8/0.6
MF72-2.5D11	2.5	5	0.095	13	43		12.5	5.8	7.5/5	0.8/0.6
MF72-5D11	5	4	0.156	13	45		12.5	5.8	7.5/5	0.8/0.6
MF72-8D11	8	3	0.255	14	47		12.5	5.8	7.5/5	0.8/0.6
MF72-10D11	10	3	0.275	14	47		12.5	5.8	7.5/5	0.8/0.6
MF72-16D11	16	2	0.470	14	50		12.5	5.8	7.5/5	0.8/0.6
MF72-22D11	22	2	0.563	15	52		12.5	5.8	7.5/5	0.8/0.6
MF72-33D11	33	1.5	0.734	15	52		12.5	5.8	7.5/5	0.8/0.6
MF72-60D11	60	1.5	1.215	15	52		12.5	5.8	7.5/5	0.8/0.6
MF72-1.3D13	1.3	7	0.062	13	60		14.5	6	7.5	0.8
MF72-2.5D13	2.5	6	0.088	13	60		14.5	6	7.5	0.8
MF72-3D13	3	6	0.092	14	60		14.5	6	7.5	0.8
MF72-5D13	5	5	0.125	15	68		14.5	6	7.5	0.8
MF72-8D13	8	4	0.194	15	60		14.5	6	7.5	0.8
MF72-10D13	10	4	0.206	15	65		14.5	6	7.5	0.8
MF72-15D13	15	3	0.335	16	60		14.5	6	7.5	0.8
MF72-16D13	16	3	0.338	16	60		14.5	6	7.5	0.8
MF72-1.3D15	1.3	8	0.048	18	68		16.5	6	10/7.5	0.8
MF72-1.5D15	1.5	8	0.052	19	69		16.5	6	10/7.5	0.8
MF72-3D15	3	7	0.075	18	76		16.5	6	10/7.5	0.8
MF72-5D15	5	6	0.112	20	76		16.5	6	10/7.5	0.8
MF72-8D15	8	5	0.178	20	80		16.5	6	10/7.5	0.8
MF72-10D15	10	5	0.180	20	75		16.5	6	10/7.5	0.8
MF72-15D15	15	4	0.268	21	85		16.5	6	10/7.5	0.8
MF72-16D15	16	4	0.276	21	70		16.5	6	10/7.5	0.8
MF72-47D15	47	3	0.680	21	86		16.5	6	10/7.5	0.8
MF72-0.7D20	0.7	12	0.018	25	79		21.5	7	10/7.5	1.0
MF72-3D20	3	8	0.055	24	88		21.5	7	10/7.5	1.0
MF72-5D20	5	7	0.087	23	87		21.5	7	10/7.5	1.0
MF72-8D20	8	6	0.142	25	105		21.5	7	10/7.5	1.0
MF72-0.7D25	0.7	13	0.014	30	120		26.5	8	10	1.0
MF72-1.5D25	1.5	10	0.027	30	121		26.5	8	10	1.0
MF72-3D25	3	9	0.044	32	124		26.5	8	10	1.0
MF72-5D25	5	8	0.070	32	125		26.5	8	10	1.0

MF11系列

SERIES

FOR TEMPERATURE

COMPENSATION

AND CONTROL

用于温度补偿及控制

特点

FEATURES

- 1.MF11系列产品为径向引线树脂涂装型

2.阻值范围宽：0.01~200KΩ

3.阻值精度可达±5%

4.额定功率：0.5W

5.一致性好

6.使用温度范围-55 ~ +125℃
- 1.MF11seriesin theform of radial resin coated form

2.Wide resistance range: 0.01~200KΩ

3.Resistancetolerance can be±5%

4.Ratedpower: 0.5W

5.Good consistency

6.Operating temperature range:-55~ +125℃

应用范围

APPLICATION

1. 电子线路的温度补偿

2. 计量设备的温度补偿

3. 仪表线圈、集成电路、石英晶体振荡器的温度补偿

4. 一般精度的温度测量及温度控制
- 1.Electroniccircuit temperaturecompensation

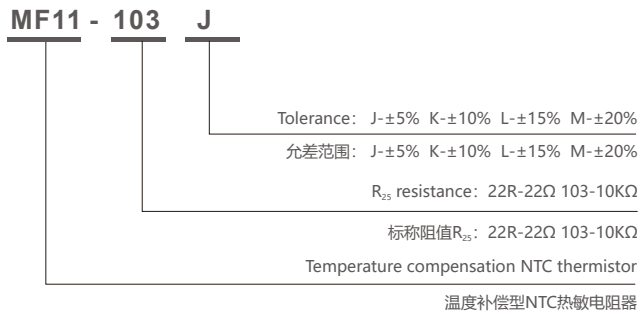
2.Computation equipment temperaturecompensation

3.Temperaturecompensation of instrument loop,integrated circuit,crystal oscillator

4.Commonly precision temperaturemeasurement and control

产品型号说明

MARKING OF PART NUMBER



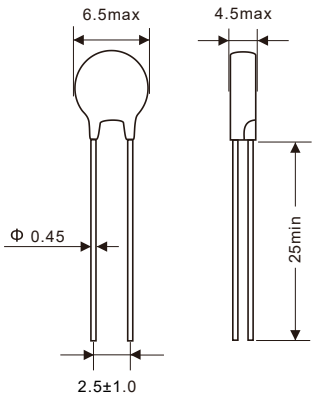
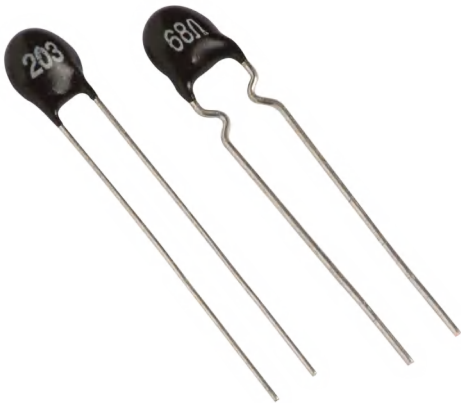
规格表

SPEC.Table

Part Number 型号	Resistance @25 额定电阻值(R ₂₅)		B Value B值		Operating Temperature 工作温度 (°C)	Dissipation Factor 耗散系数 (mW/°C)	Thermal Time Constant 热时间常数 (S)
	Resistance 电阻值(KΩ)	Tolerance 允许偏差(±%)	B Value 标称值(K)	Tolerance 允许偏差(±%)			
MF11-□ □ □	3.3-33	5、10、20	2700	5	-55℃~ +125℃	≥6.0	≤30
	6.8-68		2830				
	15~150		2950				
	33~330		3100				
	68~680		3250				
	150~1500		3400				
	330~3300		3570				
	680~6800		3740				
	1500~15000		3900				
	3300~33000		4050				
	6800~68000		4250				
	15000~150000		4450				
	33000~330000		4670				
	68000~680000		4800				
	150000~2000000		5050				

注：第一个方框填写标称阻值，第二方框填标称阻值的精度代号。
Note:First □□ForFilling in resistance @25℃,Second□ ForFilling in resistance tolerance code name.

Unit:mm



MF55系列薄膜型

SERIESFILM

FOR TEMPERATURE COMPENSATION AND CONTROL

用于温度补偿及控制

特点 | FEATURES

- 1.绝缘薄膜封装、绝缘性好、稳定性好、可靠性高
- 2.体积小重量轻、热感应速度快，灵敏度高
- 3.互换性、一致性好、能长时间稳定工作
- 4.阻值精度高、使用温度范围-30℃ ~ +110℃
- 5.使用安全、结构坚固、便于自动化安装

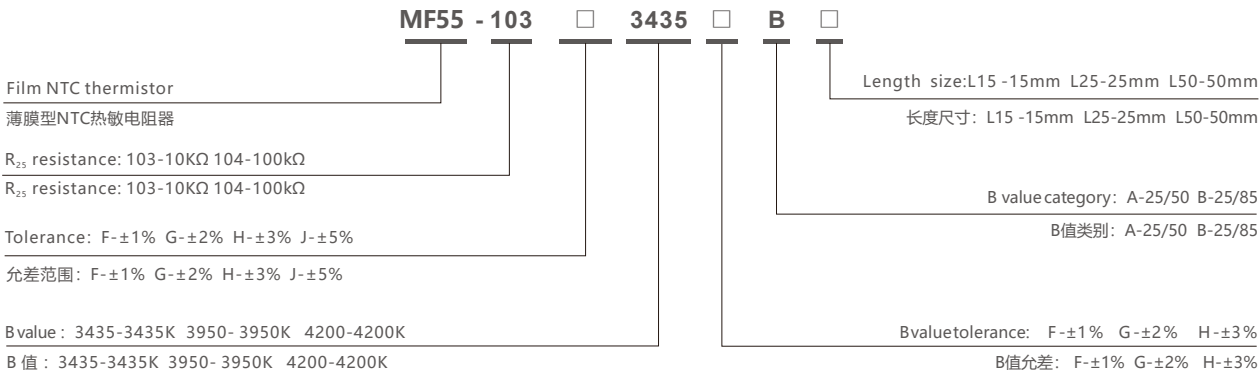
1. Insulating film encapsulation, good insulation, good stability and high reliability
2. Small size, light weight, thermal speed and high sensitivity
3. Interchangeability, good consistency, work stably for a long time
4. High precision resistance, operation temperature range is -30℃ ~ +110℃
5. Safety in use, firm structure and easy to install automation

应用范围 | APPLICATION

- 1.办公自动化设备（如电脑、复印机、打印机等）的温度检测或温度补偿
- 2.手机电池、仪表线圈、集成电路、石英晶体振荡器和热电偶的温度补偿
- 3.液面指示和流量测量
- 4.工业、医疗、环保、气象、食品加工设备的温度控制与检验

1. Temperature detection or temperature compensation of office automation equipment (Such as computers, copiers, printers, etc.)
2. Temperature compensation of mobile phone batteries, instrument coil, integrated circuits and quartz crystal oscillator and thermocouple
3. Liquid level indicator and flow measurement
4. Temperature control and detection of industrial, medical, environmental protection, meteorology, food processing equipment

产品型号说明 | MARKING OF PART NUMBER



规格表 | SPEC. Table

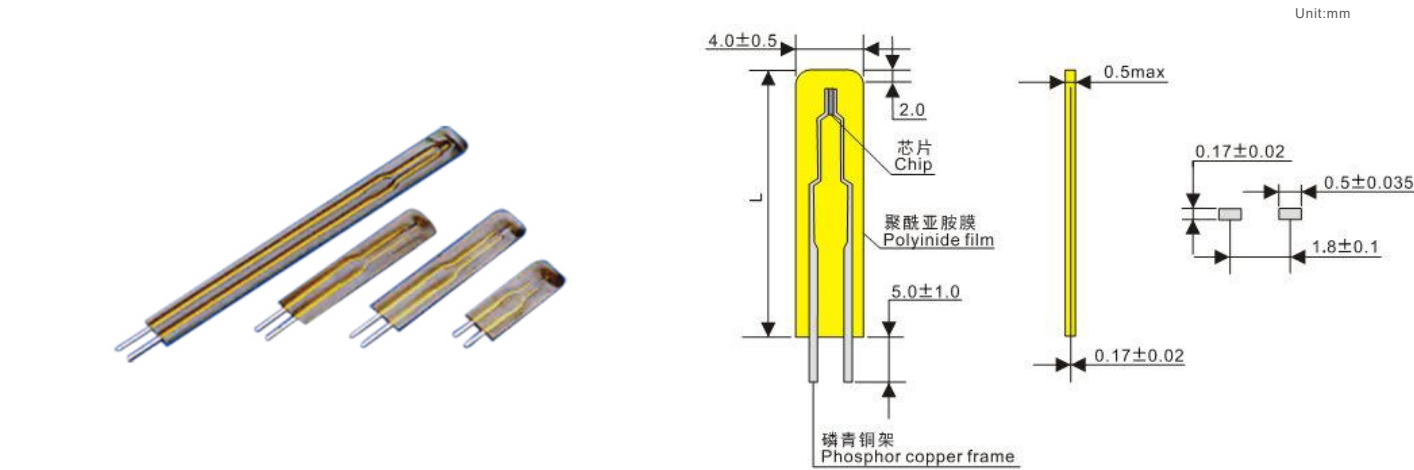
Part Number 型号	Resistance @25 额定电阻值(R ₂₅)		B Value B值		Operating Temperature 工作温度 (°C)	Dissipation Factor 耗散系数 (mW/°C)	Thermal Time Constant 热时间常数 (S)
	Resistance 电阻值(KΩ)	Tolerance 允许偏差(±%)	B Value 标称值(K)	Tolerance 允许偏差(±%)			
MF55-103□3435□B□	10	1、2、3、5	3435	1、2、3	-30°C ~ +110°C	≥ 0.7	≤5
MF55-103□3380□A□	10		3380				
MF55-103□3977□B□	10		3977				
MF55-103□3950□A□	10		3950				
MF55-104□3950□A□	100		3950				

注:

- 1、第一方框填写标称阻值的精度代号，第二方框填写B值的精度代号，第三方框填写尺寸。

Note

- 1、First□ for filling in resistance tolerance code name, second □ for filling in B value tolerance, third □ for filling in length size.



EKT DIP Thermistor (PTC)

EKTMZ12A (I / II) Series

PTC Thermistors 正温度系数热敏电阻器

— For Over Current Protection 用于过流保护

GENERAL 概述

EKTMZ12A (I / II) Series is the new generation of components for over current protection. Its safety characteristics passed the testing and meet the requirements of UL1434. It can do protection and recovery automatically and repetitively without contacting spot, noise and spark.

EKTMZ12A (I / II) Series PTC Thermistor is designed specially for over current protection of the Ballast / CFL / Adaptor / Charger / Watt-hour Meter / Multimeter / Telecom / Micromotor etc, as show as the example of application. When the circuit protected is at normal state, current through the PTC thermistor will be lower than its Max. Non-operating Current (I_N). At this time R_t is at low-resistance state, and it won't affect the normal work of the circuit protected. While abnormal things (such as over current) happen, the current will be much higher than its Trip Current (I_T), and then R_t will change into high-resistance state very quickly. So the circuit protected will be at open state and non-damaged. After the abnormal things disappear and the temperature & the current recover to normal state, R_t will return to low-resistance state automatically and the circuit protected will recover to normal operating state.

R_t 's current characteristics is the most important thing to be considered when make a choice of EKTMZ12A (I / II) series. Its Max. Non-operating Current shall be reasonably higher than rated operating current through the circuit protected and the criterion is that R_t can respond in time and won't trip by mistake. Furthermore, another thing must be especially noticed is: R_t 's Max. Operating / Non-operating characteristics is closely correlative with the ambient temperature. I_T & I_N will decrease while the ambient temperature increases, as show as Figure II.

EKTMZ12A (I / II) 系列 PTC 热敏电阻器系新一代过流保护器件，其特点是无触点、无噪音、无火花、自动保护、自动复原，可重复使用，其安全性能符合美国 UL1434 标准要求。

EKTMZ12A (I / II) 系列 PTC 热敏电阻器主要用于电子镇流器/节能灯/适配器/充电器/电度表/万用表/通讯设备/微电机等过流保护，如应用示例所示。当被保护电路处于正常状态时，流过 PTC 热敏电阻器 R_t 的电流小于其最大不动作电流 I_N ， R_t 处于低阻态，不会影响被保护电路正常工作；当被保护电路遇过流（电流大大超过其动作电流 I_T 令 R_t 急剧发热）等异常状况时， R_t 骤然跃入高阻态，使被保护电路避免受到损坏。当异常状况消失，温度、电流回复正常后， R_t 自动回复至低阻态，被保护电路亦回复至正常工作状态。

EKTMZ12A (I / II) 系列之选型主要考虑 R_t 的电流特性和 R_t 环境温度，其最大不动作电流 I_N 应适度大于被保护电路的额定工作电流，以能及时响应又不会误动作作为准则。与此同时，应特别注意 R_t 之动作/不动作特性与工作环境温度密切相关， I_N 和 I_T 随工作环境温度 T_A 升高而降低，如图 II 所示。

EXAMPLE OF APPLICATION 应用示例

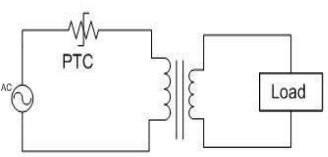


图 I -1 For Primary Coil
初级线圈保护

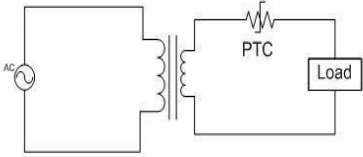


图 I -2 For Secondary Coil
次级线圈保护

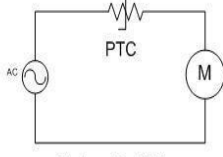


图 I -3 For Micromotor
微电机保护

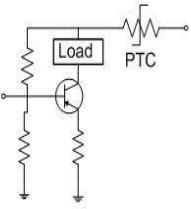


图 I -4 For Tr.
晶体管保护

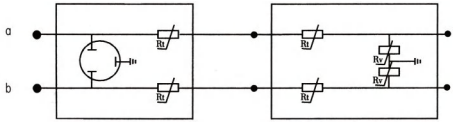


图 I -5 For Telecom
通讯设备保护

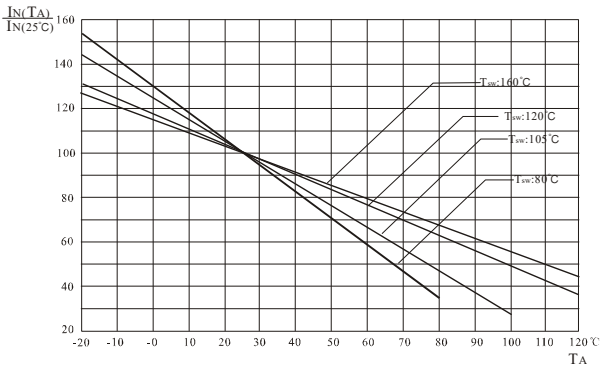
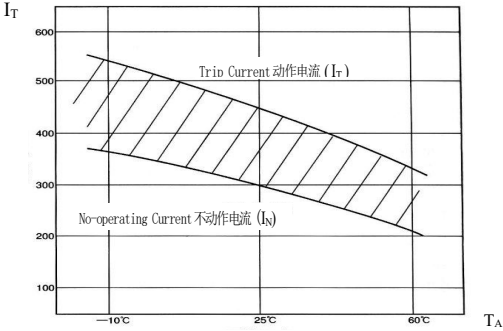


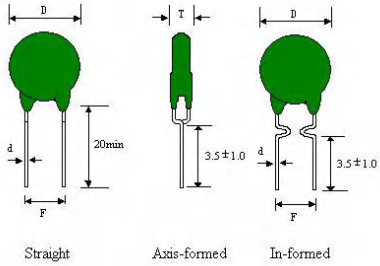
图 II Current Characteristics 电流特性



PART NUMBERING 产品编号

EKTMZ12A (I / II)	-	120	SL	15R	M	U	U	200	B	5	-	G	6	B
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		(11)	(12)	(13)

- (1) Series 系列: EKTMZ12A (I / II / III) 过流、过热、过压保护系列热敏电阻
- (2) Curie Temp. 居里温度: 50 - 50℃ 75 - 75℃ 85 - 85℃ 105 - 105℃ 120 - 120℃
- (3) Max Diameter 外径 D_{max} : S - Φ 4.5 A - Φ 6.5 B - Φ 8.5 LB- Φ 10 M- Φ 11.5 SL- Φ 14.5
- (4) Rated Zero Power Resistance 额定零功率电阻 R_N : 1R0-1 Ω 4R7-4.7 Ω 15R-15 Ω 101-100 Ω
- (5) Tolerance of Resistance 电阻值允差: V - $\pm$ 25% M - $\pm$ 20% K - $\pm$ 10%
- (6) Shape of Leads 引线形状: U - In-formed 内弯 S - Straight 直线 A - Axis-formed 轴弯
- (7) Leads material 引线材质: U: Cu 铜线 (P: Cp 钢线)
- (8) Max. Non Operating Current 最大不动作电流: 200-200mA 060-60mA 008-8mA
- (9) Packing Type 包装形式: B - Bulk 散装 (A - Ammo 条带 R - Reel 盘带)
- (10) Leads Length 引线长度 5: 5mm (10: 10mm)
- (11) Coating Material 封装材料: S-Black Silicone 黑色硅树脂 G-Green Silicone 绿色硅树脂 P-PF Resin 酚醛树脂 E-Epoxy 改良树脂 N-No Coating 不包封
- (12) Leads Diameter 引线直径: 5- Φ 0.5 6- Φ 0.6 8- Φ 0.8 1- Φ 1.0
- (13) Leads Distance 引线间距: A-2.5 B-5.0 C-7.5 D-10.0



SPECIFICATIONS TABLE 规格表

- EKTMZ12A (I)
- For Over Current Protection of the Adaptor (Primary Coil) / Charger / Watt-hour Meter / Multimeter / Micromotor and Transistor etc.
- 主要用于变压器（适配器）初级线圈 / 充电器 / 电能表 / 数字万用表 / 微电机和晶体管过流保护

No. 序号	Part No. 产 品 编 号	Max. Non Operating Current at 60℃ 最大不动作电流 I _N (mA)	Trip Current at 25℃ 动作电流 I _T (mA)	Rated Zero Power Resistance 额定零功率电阻 R _N (Ω)	Max. Permissible Current at V _{Max} 最大许可电流 I _{Max} (A)	外形尺寸 Dimension (mm)			
						D _{Max}	T _{Max}	d ^{±0.05}	F ^{±1}
Max. Operating Vol. 最大工作电压 V _{Max} = 265V _{AC} ; Curie Temp. 居里温度 T _c = 80℃ ± 7℃									
1	EKTMZ12A-222M002	2	8	2200 ± 20%	0.25	4.5	4.5	0.5	5.0
2	EKTMZ12A-152M003	3	12	1500 ± 20%					
3	EKTMZ12A-102M004	4	16	1000 ± 20%					
4	EKTMZ12A-681M005	5	20	680 ± 20%					
5	EKTMZ12A-471M006	6	24	470 ± 20%					
6	EKTMZ12A-151M025	25	100	150 ± 20%	1.00	8.5	4.5	0.6	5.0
7	EKTMZ12A-121M030	30	120	120 ± 20%					
8	EKTMZ12A-101M035	35	140	100 ± 20%					
9	EKTMZ12A-82RM040	40	160	82 ± 20%					
10	EKTMZ12A-68RM045	45	180	68 ± 20%					
11	EKTMZ12A-25RM065	65	260	25 ± 20%					

No. 序号	Part No. 产 品 编 号	Max. Non Operating Current at 60℃ 最大不动作电流 I _N (mA)	Trip Current at 25℃ 动作电流 I _T (mA)	Rated Zero Power Resistance 额定零功率电阻 R _N (Ω)	Max. Permissible Current at V _{Max} 最大许可电流 I _{Max} (A)	外形尺寸 Dimension (mm)			
						D _{Max}	T _{Max}	d ^{±0.05}	F ^{±1}
Max. Operating Vol. 最大工作电压 V _{Max} = 265V _{AC} ; Curie Temp. 居里温度 T _c = 105℃ ± 7℃									
12	EKTMZ12A-221M020	20	50	220 ± 20%	0.25	4.5	4.5	0.5	5.0
13	EKTMZ12A-151M025	25	65	150 ± 20%					
14	EKTMZ12A-101M030	30	75	100 ± 20%					
15	EKTMZ12A-221M025	25	65	220 ± 20%	0.30	5.5	4.5	0.6	5.0
16	EKTMZ12A-151M030	30	75	150 ± 20%					
17	EKTMZ12A-121M035	35	88	120 ± 20%					
18	EKTMZ12A-101M040	40	100	100 ± 20%					
19	EKTMZ12A-75RM045	45	115	75 ± 20%					
20	EKTMZ12A-68RM050	50	125	68 ± 20%					
21	EKTMZ12A-47RM055	55	138	47 ± 20%					
22	EKTMZ12A-221M025	25	65	220 ± 20%	0.40	6.5	4.5	0.6	5.0
23	EKTMZ12A-151M035	35	88	150 ± 20%					
24	EKTMZ12A-101M045	45	115	100 ± 20%					
25	EKTMZ12A-68RM055	55	138	68 ± 20%					
26	EKTMZ12A-121M050	50	125	120 ± 20%	1.00	8.5	4.5	0.6	5.0
27	EKTMZ12A-101M055	55	138	100 ± 20%					
28	EKTMZ12A-82RM060	60	150	82 ± 20%					
29	EKTMZ12A-62RM075	75	188	62 ± 20%					
30	EKTMZ12A-39RM085	85	213	39 ± 20%					
31	EKTMZ12A-22RM100	100	250	22 ± 20%					
32	EKTMZ12A-22RM120	120	300	22 ± 20%	1.60	11.5	4.5	0.6	5.0/7.5
33	EKTMZ12A-15RM130	130	325	15 ± 20%					
34	EKTMZ12A-10RM140	140	350	10 ± 20%					
35	EKTMZ12A-8R2M150	150	375	8.2 ± 20%					
36	EKTMZ12A-18RM150	150	375	18 ± 20%	2.50	14.5	5.0	0.6	5.0/7.5
37	EKTMZ12A-15RM160	160	400	15 ± 20%					
38	EKTMZ12A-12RM170	170	425	12 ± 20%					
39	EKTMZ12A-10RM180	180	450	10 ± 20%					
40	EKTMZ12A- 6R8M200	200	500	6.8 ± 20%					

No. 序号	Part No. 产 品 编 号	Current at 60℃ 最大不动作电流 I _N (mA)	动作电流 I _T (mA)	额定零功率电阻 R _N (Ω)	Max. Permissible Current at V _{Max} 最大许可电流 I _{Max} (A)	外形尺寸 Dimension (mm)			
						D _{Max}	T _{Max}	d ^{±0.05}	F ^{±1}
Max. Operating Vol. 最大工作电压 V _{Max} = 265V _{AC} ; Curie Temp. 居里温度 T _c = 120℃ ± 7℃									
41	EKTMZ12A-101M040	40	80	100±20%	0.30	5.5	4.5	0.6	5.0
42	EKTMZ12A-75RM045	45	90	75±20%					
43	EKTMZ12A-62RM050	50	100	62±20%					
44	EKTMZ12A-151M040	40	80	150±20%	0.40	6.5	5.0	0.6	5.0
45	EKTMZ12A-101M050	50	100	100±20%					
46	EKTMZ12A-68RM060	60	120	68±20%					
47	EKTMZ12A-47RM090	90	180	47±20%	1.60	11.5	5.0	0.6	5.0/7.5
48	EKTMZ12A-39RM100	100	200	39±20%					
49	EKTMZ12A-33RM110	110	220	33±20%					
50	EKTMZ12A-22RM130	130	260	22±20%					
51	EKTMZ12A-15RM145	145	290	15±20%					
52	EKTMZ12A-10RM160	160	320	10±20%					
53	EKTMZ12A-8R2M170	170	340	8.2±20%					
54	EKTMZ12A-22RM180	180	360	22±20%	2.50	14.5	5.0	0.6	5.0/7.5
55	EKTMZ12A-15RM200	200	400	15±20%					
56	EKTMZ12A-10RM220	220	440	10±20%					
57	EKTMZ12A-8R2M240	240	480	8.2±20%					
58	EKTMZ12A-6R8M260	260	520	6.8±20%					

EKTMZ12A (I / II) Series

PTC Thermistors 正温度系数热敏电阻器

— For Over Current Protection 用于过流保护

■ GENERAL 概述

EKTMZ12A (I / II) Series is the new generation of components for over current protection. Its safety characteristics passed the testing and meet the requirements of UL1434. It can do protection and recovery automatically and repetitively without contacting spot, noise and spark. EKTMZ12A (I / II) Series PTC Thermistor is designed specially for over current protection of the Ballast / CFL / Adaptor / Charger / Watt-hour Meter / Multimeter / Telecom / Micromotor etc, as show as the example of application. When the circuit protected is at normal state, current through the PTC thermistor will be lower than its Max. Non-operating Current (I_N). At this time R_t is at low-resistance state, and it won't affect the normal work of the circuit protected. While abnormal things (such as over current) happen, the current will be much higher than its Trip Current (I_T), and then R_t will change into high-resistance state very quickly. So the circuit protected will be at open state and non-damaged. After the abnormal things disappear and the temperature & the current recover to normal state, R_t will return to low-resistance state automatically and the circuit protected will recover to normal operating state.

R_t 's current characteristics is the most important thing to be considered when make a choice of EKTMZ12A (I / II) series. Its Max. Non-operating Current shall be reasonably higher than rated operating current through the circuit protected and the criterion is that R_t can respond in time and won't trip by mistake. Furthermore, another thing must be especially noticed is: R_t 's Max. Operating / Non-operating characteristics is closely correlative with the ambient temperature. I_T & I_N will decrease while the ambient temperature increases, as show as Figure II.

EKTMZ12A (I / II) 系列 PTC 热敏电阻器系新一代过流保护器件，其特点是无触点、无噪音、无火花、自动保护、自动复原，可重复使用，其安全性能符合美国 UL1434 标准要求。

EKTMZ12A (I / II) 系列 PTC 热敏电阻器主要用于电子镇流器/节能灯/适配器/充电器/电度表/万用表/通讯设备/微电机等过流保护，如应用示例所示。当被保护电路处于正常状态时，流过 PTC 热敏电阻器 R_t 的电流小于其最大不动作电流 I_N ， R_t 处于低阻态，不会影响被保护电路正常工作；当被保护电路遇过流（电流大大超过其动作电流 I_T 令 R_t 急剧发热）等异常状况时， R_t 骤然跃入高阻态，使被保护电路避免受到损坏。当异常状况消失，温度、电流回复正常后， R_t 自动回复至低阻态，被保护电路亦回复至正常工作状态。

EKTMZ12A (I / II) 系列之选型主要考虑 R_t 的电流特性和 R_t 环境温度，其最大不动作电流 I_N 应适度大于被保护电路的额定工作电流，以能及时响应又不会误动作作为准则。与此同时，应特别注意 R_t 之动作/不动作特性与工作环境温度密切相关， I_N 和 I_T 随工作环境温度 T_A 升高而降低，如图 II 所示。

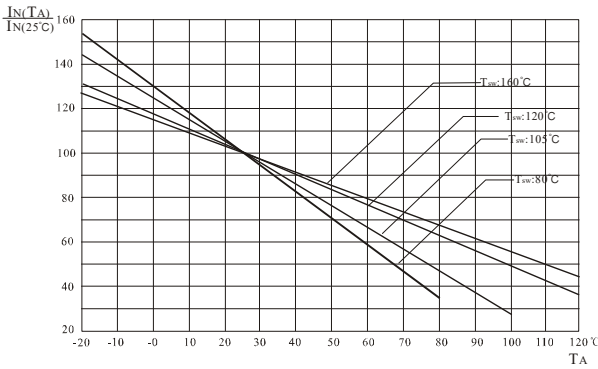
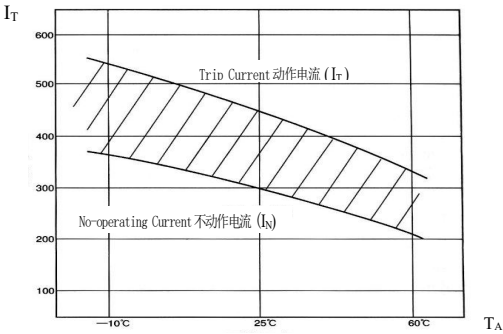


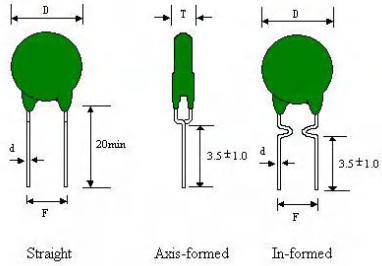
图 II Current Characteristics 电流特性



■ PART NUMBERING 产品编号

EKTMZ12A (I / II)	-	120	SL	15R	M	U	U	200	B	5	-	G	6	B
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		(11)	(12)	(13)

- (1) Series 系列: EKTMZ12A (I / II / III) 过流、过热、过压保护系列热敏电阻
- (2) Curie Temp. 居里温度: 50 - 50℃ 75 - 75℃ 85 - 85℃ 105 - 105℃ 120 - 120℃
- (3) Max Diameter 外径 D_{max} : S - Φ 4.5 A - Φ 6.5 B - Φ 8.5 LB- Φ 10 M- Φ 11.5 SL- Φ 14.5
- (4) Rated Zero Power Resistance 额定零功率电阻 R_N : 1R0-1 Ω 4R7-4.7 Ω 15R-15 Ω 101-100 Ω
- (5) Tolerance of Resistance 电阻值允差: V - $\pm$ 25% M - $\pm$ 20% K - $\pm$ 10%
- (6) Shape of Leads 引线形状: U - In-formed 内弯 S - Straight 直线 A - Axis-formed 轴弯
- (7) Leads material 引线材质: U: Cu 铜线 (P: Cp 钢线)
- (8) Max. Non Operating Current 最大不动作电流: 200-200mA 060-60mA 008-8mA
- (9) Packing Type 包装形式: B - Bulk 散装 (A - Ammo 条带 R - Reel 盘带)
- (10) Leads Length 引线长度 5: 5mm (10: 10mm)
- (11) Coating Material 封装材料: S-Black Silicone 黑色硅树脂 G-Green Silicone 绿色硅树脂 P-PF Resin 酚醛树脂 E-Epoxy 改良树脂 N-No Coating 不包封
- (12) Leads Diameter 引线直径: 5- Φ 0.5 6- Φ 0.6 8- Φ 0.8 1- Φ 1.0
- (13) Leads Distance 引线间距: A-2.5 B-5.0 C-7.5 D-10.0



■ SPECIFICATIONS TABLE 规格表

● EKTMZ12A (II)

For Over Current Protection of Telecom 主要用于通信设备过流保护

No. 序号	Part No. 产 品 编 号	Rated Zero Power Resistance 额定零功率电阻 R _N (25℃ ±2℃)	Max. Non Operating Current 最大不动作电流 I _N (40℃ ±2℃)	Max. Operating Time (s) 最大动作时间				Dimension (mm) 外形尺寸			
				3A ↓ 0.5A	1A ↓ 0.5A	0.5A ↓ 0.15A	0.2A ↓ 0.1A	D _{Max}	T _{Max}	d ^{+0.05}	F ⁼¹
Max. Operating Vol. 最大工作电压: V _{Max} = 265V _{AC}											
1	EKTMZ12A- 12RM090	12 Ω ± 20%	90mA	0.3	1.2	20	50	9	4.5	0.6	5
2	EKTMZ12A- 15RM070	15 Ω ± 20%	70mA	0.2	1.0	12	20	9	4.5	0.6	5
3	EKTMZ12A- 18RM110	18 Ω ± 20%	110mA	0.2	1.4	15	30	8	2.5	0.6	5
4	EKTMZ12A- 20RM070	20 Ω ± 20%	70mA	0.2	1.0	12	20	9	4.5	0.6	5
5	EKTMZ12A- 35RM060	35 Ω ± 20%	60mA	0.2	0.8	4	15	9	4.5	0.6	5
6	EKTMZ12A- 50RM060	50 Ω ± 20%	50mA	0.1	0.8	3	15	11	4.5	0.6	5
7	EKTMZ12A- 55RM060	55 Ω ± 20%	60mA	0.1	0.5	2	15	11	4.5	0.6	5
8	EKTMZ12A- 101M050	100 Ω ± 20%	50mA	0.1	0.5	2	8	9	4.5	0.6	5

OTHER CHARACTERISTICS 其它电性能参数:

Over Current Withstanding 耐工频电流能力: 3Arms / 220Vrms 20 times (60s On, 300s Off)

Lighting Surges 耐冲击电流能力: 10/310 μ S 1.5KV 37.5A 10 times or 10/1000 μ S 1.0KV 25A 30 times

Over Vol. Withstanding 耐工频电压能力: 250Vrms / 3A / 15 min.

Inducted Vol. Withstanding 耐高压感应能力: 650Vrms / 1.1A 20 times (1s On, 60s Off) (For only the items with * 仅适用于标有*号品种)

■ EXAMPLE OF APPLICATION 应用示例

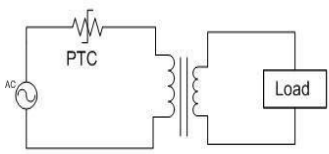


图 I -1 For Primary Coil
初级线圈保护

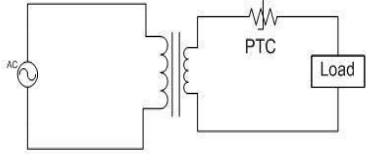


图 I -2 For Secondary Coil
次级线圈保护

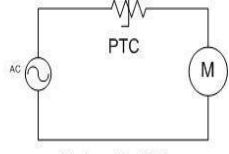


图 I -3 For Micromotor
微电机保护

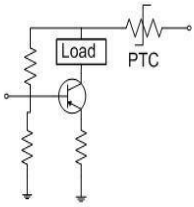


图 I -4 For Tr.
晶体管保护

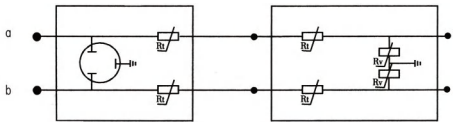
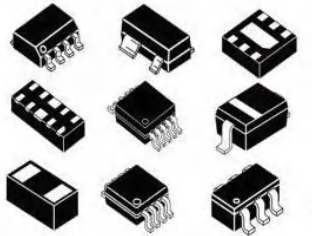


图 I -5 For Telecom
通讯设备保护

EKT TVS (SMD/ESD/DIP)

Product Features

- 1. TVS power tube series 200W-8000W
- 2. The working voltage ranges from 5V-440V to meet customer selection needs
- 3. PS second level response speed, with large transient surge absorption capacity
- 4. Low leakage current, easy to control clamping voltage
- 5. Small size, easy to install, high reliability
- 6. The breakdown voltage is around 5%, with high accuracy



Application Scope

- 1. Mainly used for security, medical devices, power transformers, automotive electronics, communications, lamps, consumer electronics, adapters, chargers, Electricity meter, multimeters, communication equipment, etc.



Product Model Description

Series	SOD-DO	Voltage range (v)	Power (w)	Operation Temperature (°C)	Response Speed (uA)
SMF	SOD123	5 ~ 190	200W	125-150	<1
SMA	DO-214AC	5 ~ 440	400W	125-150	<1
SMB	DO-214AA	5 ~ 440	600W	125-150	<1
SMC	DO-214AB	5 ~ 440	1500W	125-150	<1
SMD	DO-214AB	5 ~ 440	3000W	125-150	<1
ESD0201	0201	3.3 ~ 24	60W	125-150	<0.1
ESD0402	0402	2.5 ~ 47	60W	125-150	<0.1
ESD0603	0603	2.5 ~ 47	100W	125-150	<0.1
DFN	DFN	2.5 ~ 36	90 ~ 1480W	125-150	<0.1
SOP	SOP	5 ~ 24	300W	125-150	<0.1
SOT	SOT	5 ~ 12	100W	125-150	<0.1

EKT SMD Disposable Fuse

Product Features

- 1.Has multiple packaging sizes and styles, and can be completely replaced by materials provided by customers;
- 2.The maximum current can be 100A;
- 3.The working voltage exceeds self recovery, can produce 300V AC products;
- 4.Adequate inventory supply and stable characteristics;



Application Scope

Medical products, consumer electronics, automotive electronics, chargers, security, power supplies, etc

Product Model Description

EKT	F	04	F	0.25	32
Logo 品牌	Fuse 保险丝	Size 尺寸	response speed 响应速度	Current Rating 额定电流	Voltage Rating 额定电压
		04(0402)	F: Fast Acting快	0.25: 250mA	24:24V
		06(0603)	T: Slow Blow慢	1: 1A	32:32V
		12(1206)		10: 10A	63:63V
		24(2410)		15: 15A	72:72V
		10(1032)			125:125V
		12(1245)			250:250V
					300:300V

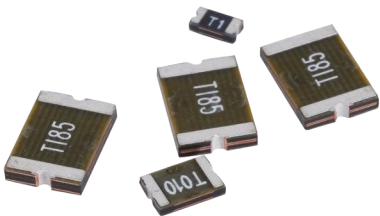
Temperature

Parameter	Value	Unit
Operating temperature 工作温度	55-125	°C
Storage temperature 存储温度	55-125	°C
Current Rating	0.25-40	A
Voltage Rating	24-300	V

EKT SMD Resettable Fuse

Product Features

1. The working temperature shall not exceed 85 °C, and the resistance value of the product changes with the temperature;
2. The product can recover on its own, with a slow response time of up to 10 seconds;
3. If the size is small, the current value is small, and if the size is large, the current value can be increased;
4. Special product specifications can be customized for customers and designed according to the requirements;



Application Scope

Mobile phones, medical products, consumer electronics, battery protection products, automotive electronics, chargers, security, power supplies, TAYP-C data cable ports.

Product Model Description

TLC	A	SML	010
LOGO品牌	Size 尺寸	Packaging Process 封装工艺	Current Rating 额定电流
	A: 0402		010: 0.1A
	F: 0603		075: 0.75
	P: 0805		100: 1A
	N: 1206		200: 2A
	U: 1210		500: 5A
	M: 1812		
	L: 2920		

Temperature

Parameter	Value	Unit
Operating temperature 工作温度	-40 ~ +85	℃
Storage temperature 存储温度	-40 ~ +85	℃
Operating current range	0.1~10	A
Operating voltage range	6~60	V

EKT Three Terminal Fuse

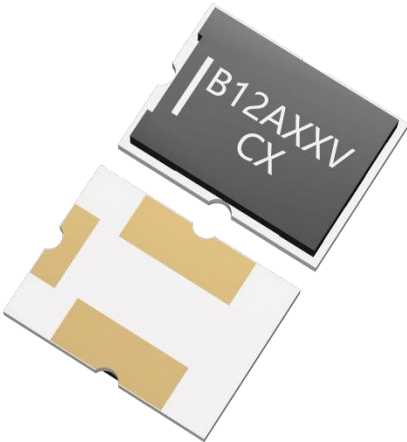
Features

- Halogen Free
- Protection for both overcurrent and overcharging
- Surface Mount
- Fast response

Agency Approvals

- UL file: E467707

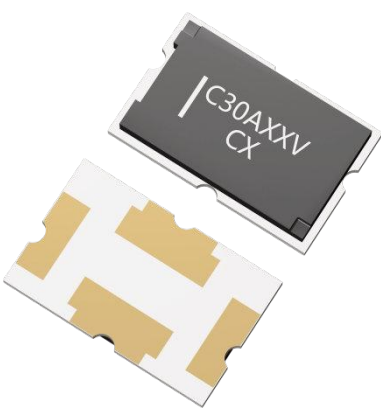
WSFB Series



Description

WSFB Series is a three terminals surface mountable battery protector that can protect against both overcurrent and over-charging. It comprises a fuse element to ensure stable operation under normal electrical current and to cut off the current when overcurrent occurs. It also comprises a resistive heating element that could be used in combination with a voltage detecting means, such as IC and FET. When overvoltage is detected, it will generate heat to blow the fuse to achieve overvoltage protection.

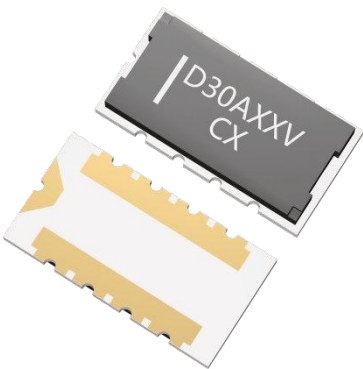
WSFC Series



Description

WSFC Series is a three terminals surface mountable battery protector that can protect against both overcurrent and over-charging. It comprises a fuse element to ensure stable operation under normal electrical current and to cut off the current when overcurrent occurs. It also comprises a resistive heating element that could be used in combination with a voltage detecting means, such as IC and FET. When overvoltage is detected, it will generate heat to blow the fuse to achieve overvoltage protection.

WSFD Series



Description

WSFD Series is a three terminals surface mountable battery protector that can protect against both overcurrent and over-charging. It comprises a fuse element to ensure stable operation under normal electrical current and to cut off the current when overcurrent occurs. It also comprises a resistive heating element that could be used in combination with a voltage detecting means, such as IC and FET. When overvoltage is detected, it will generate heat to blow the fuse to achieve overvoltage protection.

EKT DIP Fuse

Product Features

1. High power, high current, and voltage values can also be increased;
2. Large product size and diameter can be used for high-power products;
3. The recovery time is relatively slow, and the working temperature is normal and does not exceed 85 degrees;
- 4 products comply with European and American standards;



Application Scope

Mobile phones, medical products, consumer electronics
battery protection products, automotive electronics,char
gers, security, power supplies, etc

Product Model Description

Series	Size (mm)	Nominal Current (A)	Working Voltage (v)	Rated Resistance R25 (Ω)
TRA	5mm ~ 24mm	0.05A ~ 14A	16V	0.002 ~ 8.0
TRB	5mm ~ 24mm	0.9A ~ 9A	30V	0.04 ~ 0.3
TRC	7mm ~ 28mm	0.05A ~ 5A	72V	0.02 ~ 25
TRE	7mm ~ 28mm.	0.1A ~ 5A	120V	0.02 ~ 7.5
TRF	5mm ~ 28mm	0.02A ~ 4A	250V	0.09 ~ 240
TRG	5mm ~ 28mm	0.06A ~ 0.25A	600V	2.0 ~ 63
TRM	5mm ~ 28mm	0.05A ~ 2A	265V	0.09 ~ 65

EKT SMD GDT

Product Features

1. Excellent response to rapidly rising transient stable
breakdown voltage
2. Super strong impulse current 500A-20KA
- 3 Achieve small surface mount size and high efficiency
4. Ultra low capacitance ≤ 0.6PF
5. Product complies with ROHS environmental standards
6. DC working voltage 70V-1000V



Application Scope

1. Signal protection: electronic circuit, computer system, video
system, CATV equipment, cathode ray tube (CRT), experimental
equipment, testing equipment, Major appliance;
- 2.Power protection: power socket, power converter, patch cord,
air switch, load switch and other low-voltage appliances, railway
power, electrical system, LC equipment, motor, Submersible
pump, transmission equipment;
3. Communication products, industrial products, and consumer
electronics

Product Model Description

K	G	3216	B	150
康泰崙隆 Kangtai	Product Line 产品线 G=Gas Discharge Tube	Size 尺寸 3216 4532 5042 8360	Polar 极性 B=Bidirectional U=Unidirectional	DC Breakdown Voltage 直流击穿电压 090=90V 150=150V 200=200V

Temperature

Parameter	Value	Unit
Operating temperature 工作温度	-40 ~ +90	℃
Storage temperature 存储温度	-40 ~ +90	℃
Breakdown voltage	70-1000	V
Impulse discharge current	500-20K	A

EKT DIP GDT

Product Features

The surge current is large, up to 1KA-150KA, with extremely high insulation resistance, no leakage current, no aging failure, no polarity bidirectional protection, minimal static capacitance, and large dispersion of breakdown voltage. It is commonly used for lightning protection in communication lines, security units of communication distribution frames, and high-frequency circuits.



Application Scope

Power transformers, automotive electronics, communication, lighting fixtures, consumer electronics, adapters, chargers, kilowatt hour meters, multimeters, communication equipment, etc

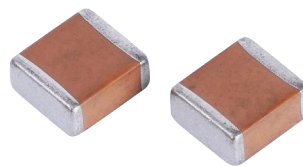
Product Model Description

Series	Size (mm)	Voltage (V)	Current (A)	Temperature (°C)	Error Precision (%)	Capacity (PF)
1206	3.20.×1.60×1.6max.	150～600	500A	85-105	30%	0.6
1812	4.50.×3.20×3.2max	90～600	2000A	85-105	20%	0.5
5045	.5.00.×4.50×5.0max	70～800	5000A	85-105	20%	1.0
8360	8.30.×6.00×8.3max	70～800	20000A	85-105	20%	1.5
2R05	6.00.×6.00	70～1000	5000A	85-105	20%	1.5
2R08	6.00.×8.00	70～1000	5000A	85-105	20%	1.5
2R09	8.00.×8.00	70～1000	10000A	85-105	20%	1.5
3R05	7.20.×5.00	90～600	5000A	85-105	20%	1.5
3R08	12.0.×8.00	90～600	10000A	85-105	20%	2.0

EKT SMD Multilayer Ceramic Capacitor

Product Features

1. Material characteristics: COG, X7R, X7S, X6S, X5R, Y5V;
2. High voltage: 100V, 250V, 500V, 1KV, 2KV, 3KV, 5KV;
- 3 High capacity: 1UF, 2.2UF, 4.7UF, 10UF, 22UF, 47UF, 100UF;
- 4 safety regulations series: 101PF, 221PF, 102NF, 222NF;



Application Scope

Consumer electronics, smart home, LED lighting, security, healthcare, communication, automotive electronics, new energy, etc

Product Model Description

Series	Size L×W×T (mm)	Voltage (V)	Capacitance @1MHz (pF)	Capacity Error & Material (%)
0402	1.00×0.50×0.50max	6.3V～100V	1pF～1uF	1%～20% (COG-Y5V)
0603	1.60×0.80×0.80max	6.3V～250V	1pF～10uF	1%～20% (COG-Y5V)
0805	2.00×1.25×1.25 max	6.3V～500V	1pF～47uF	1%～20% (COG-Y5V)
1206	3.20×1.60×1.60 max.	6.3V～3KV	1pF～47uF	1%～20% (COG-Y5V)
1210	3.20×2.50×1.70 max.	6.3V～3KV	1pF～47uF	1%～20% (COG-Y5V)
1812	4.50×3.20×2.50 max.	6.3V～5KV	1pF～100uF	1%～20% (COG-Y5V)
2220	5.70×5.00×2.50 max.	10V～6KV	100pF～100uF	1%～20% (COG-Y5V)

EKT SMD Plastic Safty Capacitor Y Series

Product Features

The plastic encapsulated chip safety capacitor adopts semiconductor packaging technology, which has strong moisture resistance, high temperature resistance, and high reliability. It replaces the traditional plug-in safety capacitor Y series, and has a miniaturized volume. It can be used for AC AC working lines 250V-400V, reducing labor costs and can be reflow welded to improve production efficiency. The surge resistance is of the same level as the plug-in.



Application Scope

Surge absorption in household appliances, power supplies, fast charging, consumer electronics, communication, security, medical, and automotive electronics

Product Model Description

Series	Size L×W×T (mm)	Voltage V _{AC} (V)	Capacitance @1MHz (pF)	Capacity Error (%)
2220H	6.30×5.50×4.0mm	250V ~ 400V	100PF ~ 220PF	10% ~ 20%
3220H	8.00×6.30×4.0mm	250V ~ 400V	100PF ~ 4700PF	10% ~ 20%
3225H	8.00×6.30×4.0mm	250V ~ 400V	100PF ~ 4700PF	10% ~ 20%
4032H	10.0×8.00×4.0mm	250V ~ 400V	100PF ~ 4700PF	10% ~ 20%
7S-H	10.0×8.00×4.0mm	250V ~ 400V	100PF ~ 4700PF	10% ~ 20%

Development History

- 1981: The first varistor manufacturer in Taiwan.
- 1995: Established production base in Huizhou, Mainland China.
- 1997: Acquisition of Dongguan Baosheng of Taiwan ChaoLian technology and establishment of the second factory.
- 1999: Kangtai Group invested in MLCV, NTC, MLCC, TVS and GDT.
- 2001: MLCV, NTC, MLCC, TVS and GDT are in trial production.
- 2003: Huizhou plug-in obtained international UL, VDE, CQC, ISO and other certifications.
- 2011: Taiwan Kangtai set up an office in Shenzhen. The company was named Kangtai Songlong.
- 2012: R & D of laminated chip varistor high voltage series120V-620V.
- 2012: Kangtai LED lighting (Hong Kong) Co., Ltd. was established.
- 2013: Adopted by HUAWEI, HIKVISION, MIDEA, ETC.
- 2015: The company developed high-Q SMD capacitors, which can be used for general military products, Products can replace American ATC capacitors.
- 2018: Laminated SMD varistors obtained UL, TUV and other international certification.
- 2020: The transformation of Shenzhen office and the establishment of manufacturing plant in Longgang, Shenzhen.
- 2021: 3220 and 4032 R & D investment of plastic patch varistors and application of lamps, household appliances and security customers.
- 2022: The plastic varistor has obtained TUV, CQC and ISO quality system certification.