



Leiditech

# 雷卯电子

Leiditech Electronic

- ESD静电保护元件  
Electrostatic Discharged Protection Devices
- TVS瞬态电压抑制二极管  
Transient Voltage Suppressors
- TSS半导体放电管  
Thyristor Surge Suppressors
- Rectifier整流管  
Rectifier Diode
- GDT陶瓷气体放电管  
Gas Discharge Tube
- MOV压敏电阻  
Metal Oxide Varistors
- PPTC自恢复保险丝  
Positive Thermal Coefficient
- MOSFET场效应管
- Inductor电感

上海雷卯电子科技有限公司  
Shanghai Leiditech Electronic Technology Co., Ltd

# 资质荣誉 Honor of Qualification



## 公司简介

上海雷卯电子科技有限公司，成立于 2011 年，品牌 Leiditech，是国家高新技术企业。公司研发团队由留美博士和 TI 原开发经理组建，凭借技术精湛的研发队伍和丰富的电磁兼容行业专家，主要提供防静电 TVS/ESD 以及相关 EMC 元器件（放电管 TSS/GDT、稳压管 ZENER、压敏电阻 MOV、整流二极管 RECTIFIER、自恢复保险丝 PPTC、场效应管 MOSFET、电感）。

Leiditech 围绕 EMC 电磁兼容服务客户，自建免费实验室为客户测试静电 ESD (30KV)、群脉冲 EFT(4KV)、浪涌 (8/20, 10/700 10/1000)、汽车抛负载 (7637 5a/5b) 和元器件的性能测试等。Leiditech 紧跟国内外技术更新脉搏，不断创新 EMC 保护方案和相关器件，目标方向为小封装，大功率，为国产化替代提供可信赖方案和元器件。

Leiditech 主要服务市场是：通信安防、汽车电子、医疗电子、照明、工业产品及消费类电子市场等。

Leiditech 企业获得 IATF16949、ISO9001-2015 证书，产品符合国家相关的测试标准和要求，同时也符合 IEC、FCC、UL、VDE 等国际标准，并取得 ROHS、REACH 等系列认证。雷卯产品能够满足高规格防雷防过压防过流要求，从而提高整机使用寿命。

Leiditech 以专利引导产品成果转化，以大数据参数对比国外型号满足国产化替代，创办专有技术平台（微信小程序：EMC 电磁兼容社区），建立进口型号匹配的官网。

Leiditech 相信应用广泛的产品、垂直整合的业务模式使我们极具竞争优势。通过在项目初始设计时期帮助客户按适用标准正向设计，帮助客户在设计和生产中省时省力省钱。

Leiditech 的产品已广泛应用到世界各地，并支持世界各地 LOCAL 品牌。Leiditech 早已在 TVS/ESD 业界享有盛名。直接或间接客户有美国 FUTURE、霍尼韦尔、韩国 LG、中国大陆有大众、比亚迪、美的、创维、哈罗单车、小米、富士康等。

Leiditech 宗旨是：诚信为本，为客户之所想，急客户之所急，努力成为专业电磁兼容方案服务和元器件供应商。

### 企业文化

高效工作，智慧生活；

公司是个团队，每个人是责任单元；

诚信为本，为客户之所想，急客户之所急；

努力成为专业电磁兼容方案服务和元器件供应商。

## Company Profile

Shanghai Leiditech Electronic Technology Co., Ltd., Our brand is Leiditech, founded in 2011, is a National High-tech Enterprise. The R&D team of the company is established by American Ph.D. and the former development manager of Ti, with a skilled R&D team and experienced experts in EMC industry, we mainly provide TVS/ESD and related EMC components (TSS/GDT, Zener, MOV, Rectifier Diode, PPTC, Mosfet, Inductor).

Leiditech serve customers around EMC, has set up a free laboratory to test electrostatic ESD (30kV), Electrical fast transient EFT(4kV), Surge (8/20, 10/700, 10/1000), Load-dump (7637-2 5A/5B) and electronic component parameter compare for customers. Leiditech keeps abreast of technological updates at domestic and overseas, and constantly innovates EMC protection solutions and related components. The target direction is smaller package, higher power, and provides reliable solutions and components made in china.

Leiditech major service markets are: Telecom&Security, Automotive, Electronics, Medical Electronics, Lighting, Industrial Products , Consumer Electronics Market and so on.

Leiditech won the IATF16949、ISO9001-2015 certificate , Leiditech products meet the relevant national testing standards and requirements, as well as IEC, FCC, UL, VDE and other international standards, and have obtained ROHS, REACH and other series of certification. Leiditech products can meet the requirements of high specification lightning protection, over-voltage and over-current protection, so as to improve the service life of the product.

Leiditech has many patent products, compares foreign types with big data comparing to meet the domestic substitution, establishes a proprietary technology platform (WeChat small program: EMC electromagnetic compatibility community), and establishes an official website matching imported models.

Leiditech believes that a wide range of products and a vertically integrated business model keeps competitive advantage. Help customers saving time, effort and money in design and production and success one-time by helping them to design forward according to applicable standards during the initial design phase of the project.

Leiditech products have been widely used around the world and support LOCAL brands around the world. Leiditech is already well known in the TVS/ESD industry. Our customers include Future, Honeywell, LG , Volkswagen, BYD, Midea, Skyworth, hello Bike, Xiaomi, Foxconn and so on.

Leiditech purpose is: Integrity - based, think for customer and do what our customer want urgently , we stick to be a professional supplier of EMC solution services and components.

### **Leiditech Culture:**

Efficient work and wisdom life;

The whole company is a team,everyone is a responsible unit;

Integrity-based,for the customer's thinking,the urgency of the customer;

Strive to become a professional supplier of EMC components.

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# 雷卯EMC实验室免费测试明细

雷卯实验室，可以测试30KV静电、8/20浪涌、10/1000浪涌、7637/5a/5b抛负载、半导体器件的性能测试等等。

检测设备/检测项目明细如下：

序号	一. 静电放电发生器ESD61002TB	二. 雷击浪涌发生器SUG61005TB	三. 雷击浪涌发生器SUG10/1000	四. 通信线雷击浪涌发生器SUG10/700TG	五. 手机/芯片雷击浪涌发生器TVS 8/20	六. 汽车高能量抛负载模拟器ISO7637-TP5a/5b	七. VC测试仪VC-615W (新设备)	八. 群脉冲发生器EFT61004TA	九. 二极管测试机ES-DSHD-700W	十. 晶体管特性图示仪WQ4832	十一. LRC数字电桥ZX8528A
1. 设备图											
2. 测试项目	接触放电 空气放电	电磁兼容-浪涌 (冲击) 抗扰度	浪涌	通信设备的连线在经受来自自然界雷击所引起的高能量瞬变干扰时的性能	半导体器件和手机芯片的常规测试	汽车电子设备的抗扰度测试	测量TVS的VC	检测被测产品抵抗脉冲群干扰的能力	测试二极管类产品 压降 Vf/反向电压 Vr/ 漏电流 Ir 等技术参数	示波器显示半导体器件静态参数压降 Vf/ 反向电压 Vr/ 漏电流 Ir 曲线	测量产品的电容/电阻和电感值
3. 测试标准	IEC61000-4-2 GB/T17626.2 GB19951 ISO10605	IEC61000-4-5 GB/T17626.5	FCC part 68 GR-1089-CORE	IEC61000-4-5 GB/T17626.5	IEC61000-4-5 IEC801-5 GB/T17626.5	GB/T21437.2	国标	IEC61000-4-4 GB/T17626.4	国标	国标	国标
4. 测试产品	电源接口、I/O口, 各类通信接口	电源接口	电源接口	电源口、对称信号口	手机、消费类电子产品	汽车产品电源口	单双向TVS, 超大功率TVS都适用	需测电磁兼容的产品	分立器件	二三极管	被动器件/电感/电容等
5. 雷卯可提供保护元件类别	ESD: SRV05-4, SLV12.8-4, ULC0524P, SD12C, SMC12	TVS, GDT, MOV	TVS, GDT, MOV	TSS, DGT	ESD: SM712 ESDA05CT, TVS	汽车级 TVS: SMDJ16CA, 5.0SMDJ20CA, 5.0SMDJ24CA, 5KP36CA, P8S33CA, SMSS36A	SMSS36A, 15KP36CA, 30KP36CA, 30KP58CA	电感	ESD, TVS, 整流管, 二三极管	ESD, TVS, 整流管, 二三极管	ESD, TVS, 电感

雷卯工程师，有丰富的测试经验和元器件选型经验，免费为客户提供测试、解决方案和元器件选型，欢迎广大EMC硬件工程师联系预约测试。免费测试预约请联系胡工：18016225001。



# ESD 静电保护元件

## ESD 的简介

防静电保护元件,简称 ESD。主要用于保护通信接口的静电保护, 静电产生原因:

- 两物质经由接触摩擦而失去电子或得到电子, 使带(不流动)的电荷称之静电;
- 因开关电或雷击间接诱发的突波也是静电产生原因;
- 温湿度影响摩擦生电, 在低于 45°C 时, 会产生比高于 55°C 的湿度下更大的电压, 破坏性也相对较大。

国际标准规定, 设备必须符合静电标准如下:

IEC 61000-4-2 (ESD) immunity test: Air discharge:  $\pm 15\text{kV}$ , Contact discharge:  $\pm 8\text{kV}$

IEC61000-4-4 (EFT) \* A @ (5/50ns)

IEC61000-4-5 (Lightning) \* A @ (8/20 $\mu\text{s}$ )

## ESD 的选型技巧

- $V_{\text{rwm}}$  大于或等于电路额定工作电压;
- 电容  $C_p$  有大有小, 以通信接口传输数据不丢包为最佳;
- 功率  $\text{Power} = V_c * I_{\text{pp}} * \text{功率因素}$ ,  $V_c$  接近  $V_b$  为好;
- $I_{\text{pp}}$  大更好,  $I_{\text{pp}}$  选择多大决定于产品使用环境;
- 根据喜好选择封装外形、单路或多路。

## Information of ESD

Electrostatic Discharge Protection Devices, referred to as ESD. It is mainly used to protect the Electrostatic Discharge of communication interface .

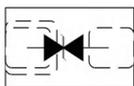
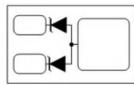
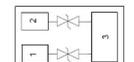
The reason of Electrostatic Discharge:

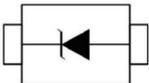
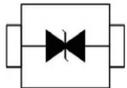
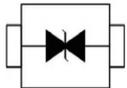
- Two substances via the contact friction and loss of electrons or the electron, the charge band (no flow) termed static;
- Due to switch electricity or lightning induced surge also indirect causes static electricity;
- Temperature and humidity affect the turboelectric charged, at less than 45°C, it will produce higher humidity greater voltage more than in 55°C, damaging also relatively large.

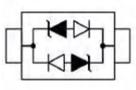
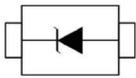
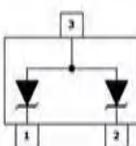
## The selection tips of ESD

- The  $V_{\text{rwm}}$  is bigger or equal to the circuit working voltage is better;
- The  $C_p$  of ESD is confirmed by the rate of data port, the data transfer more faster, the  $C_p$  of ESD should be more smaller;
- Selecting suitable  $I_{\text{pp}}$  for your circuit, the suitable  $V_c$  for your circuit and  $\text{power} = I_{\text{pp}} * V_c * \text{power factor}$ ;
- According to the PCB to select package (1-channel or multi-channels).



No.	Part Number	Power (W)	Vrwm (V)	Vb(V)	Vc (V)@1A	C(PF)	Features	Package	Pin Configuration
1	ESD3321C	80	3.3	3.5	8	18	1路, 双向	DFN0603	
2	ULC0521C	125	5	6.5	12	0.26	1路双向, 超低电容	DFN0603	
3	ULC0521CT	50	5	5.8	9.8	0.5	1路双向, 超低电容	DFN0603	
4	ULC0321CDNH	35	3.3	8	5	8	1路双向, 超低电容	DFN0603	
5	LC0521C	40	5	6.5	7	2.5	1路双向, 低电容	DFN0603	
6	ESD0521C	60	5	5.5	8	15	1路, 双向	DFN0603	
7	ESD2511CDN	310	2.5	3	6	60	1路, 双向	DFN1006	
8	ULC3311CDN	80	3.3	5	10	0.3	1路双向, 超低电容	DFN1006	
9	ESDA33CP	100	3.3	4	7	10	1路, 双向	DFN1006	
10	ESD4521C	300	4.5	4.8	6.4	60	1路, 双向	DFN1006	
11	ESDA05CP	80	5	6	7.5	15	1路, 双向	DFN1006	
12	SMDA05CCN	360	5	7.2	9	60	1路, 双向	DFN1006	
13	LC6511CP	50	6	6.5	18	5	1路, 双向	DFN1006	
14	ESDA08CP	150	8	8.5	16	7	1路, 双向	DFN1006	
15	ULC0511CDN	110	5	6	12	0.22	1路双向, 超低电容	DFN1006	
16	SDA3311CDN	420	3.3	5	11	50	1路, 双向	DFN1006	
17	SDA0511CDN	250	5	6	8	60	1路, 双向	DFN1006	
18	SDA0811CDN	300	8	8.5	10	80	1路, 双向	DFN1006	
19	SDA1211CDN	150	12	14	15.3	8	1路, 双向	DFN1006	
20	SDA1511CDN	70	15	16.7	18.9	10	1路, 双向	DFN1006	
21	SDA2411CDN	300	24	27	34	20	1路, 双向	DFN1006	
22	SDA3611CDN	300	36	42	55	20	1路, 双向	DFN1006	
23	ESDA3302P3	20	3.3	4.5	8.5	9	2路, 单向	DFN1006-3	
24	ESDA0502P3	20	5	6	7.5	8	2路, 单向	DFN1006-3	
25	ESDA1202P3	20	12	13.3	17	6	2路, 单向	DFN1006-3	
26	ESDA05CP3	100	5	6	8	2	2路, 双向	DFN1006-3	
27	ESDA1222CP3	50	12	13.3	18	4	2路, 双向	DFN1006-3	
28	ESD9D3V3	102	3.3	5	6.5	80	1路, 单向	SOD-923	
29	ESD9L5V	70	5	6	9	0.9	1路单向, 超低电容	SOD-923	
30	ESD9D5V	92	5	6.2	7	40	1路, 单向	SOD-923	
31	ESD5Z3L	100	3.3	4.2	9	0.6	1路单向, 超低电容	SOD-523	
32	SDA3.3T1	200	3.3	4	8.4	60	1路, 单向	SOD-523	
33	SDA05T1	174	5	6	11.6	80	1路, 单向	SOD-523	
34	SDA08T1	200	8	8.5	13	70	1路, 单向	SOD-523	
35	SDA12T1	1480	12	13	37	52	1路, 单向	SOD-523	

No.	Part Number	Power (W)	Vrwm (V)	Vb(V)	Vc (V)@1A	C(PF)	Features	Package	Pin Configuration
36	SDA15T1	280	15	16	22	35	1路, 单向	SOD-523	
37	SDA24T1	300	24	25.5	38	27	1路, 单向	SOD-523	
38	SDA36T1	150	36	40	62	20	1路, 单向	SOD-523	
39	SD03	500	3.3	5	6.5	195	1路, 单向	SOD-323	
40	SD05	350	5	6	9.8	200	1路, 单向	SOD-323	
41	SD12	300	12	13.3	19	60	1路, 单向	SOD-323	
42	SD15	500	15	16.7	24	100	1路, 单向	SOD-323	
43	SD24	315	24	26.5	35	50	1路, 单向	SOD-323	
44	SD36	500	36	40	60	75	1路, 单向	SOD-323	
45	ESD9D3V3C	100	3.3	4.5	7.5	15	1路双向	SOD-923	
46	ESD9L5.0C	150	5	5.4	12.9	0.5	1路双向, 超低电容	SOD-923	
47	ESD9D5C	150	5	5.6	11.6	15	1路, 双向	SOD-923	
48	ESDA33CT	90	3.3	3.5	6	13	1路, 双向	SOD-523	
49	ESDA05CT	100	5	5.5	9	15	1路, 双向	SOD-523	
50	ESD5Z5CL	200	5	6	9.8	0.5	1路双向, 超低电容	SOD-523	
51	ESDA08CT	100	8	8.2	20	30	1路, 双向	SOD-523	
52	SD03C	350	3.3	4.8	7	200	1路, 双向	SOD-323	
53	SD05C	315	5	6.5	9.5	110	1路, 双向	SOD-323	
54	SD08C	600	8	8.5	13.4	120	1路, 双向	SOD-323	
55	SD12C	350	12	14.2	24	45	1路, 双向	SOD-323	
56	SD15C	350	15	16.7	24	68	1路, 双向	SOD-323	
57	SD18C	600	18	20	29	57	1路, 双向	SOD-323	
58	SD24C	320	24	26.7	40	25	1路, 双向	SOD-323	
59	SD36C	320	36	40	60	35	1路, 双向	SOD-323	
60	SD48C	600	48	50	70	10	1路, 双向	SOD-323	
61	LC03CI	320	3	4	7	0.6	1路, 双向	SOD-323	
62	LC05CI	400	5	6	10	0.6	1路, 双向	SOD-323	
63	LC08CI	350	8	8.5	13.4	1	1路, 双向	SOD-323	
64	LC12CI	350	12	13.3	18	1	1路, 双向	SOD-323	
65	LC15CI	350	15	16.7	22	1	1路, 双向	SOD-323	
66	LC24CI	350	24	26.7	43	1	1路, 双向	SOD-323	
67	LC36CI	350	36	40	60	1	1路, 双向	SOD-323	
68	LC2511CCW	200	2.5	3	5.8	1	1路双向, 高温不丢包	SOD-323	
69	LC3311CCW	400	3	4	7	0.6	1路双向, 高温不丢包	SOD-323	
70	SD0371P6W	1300	3.3	4.9	7	350	1路单向, 大功率	DFN1610-2	
71	SD0571P6W	1280	5	6	9	650	1路单向, 大功率	DFN1610-2	

No.	Part Number	Power (W)	V <sub>rwm</sub> (V)	V <sub>b</sub> (V)	V <sub>c</sub> (V)@1A	C(PF)	Features	Package	Pin Configuration
72	LC12CI	350	12	13.3	18	1	1CH Bi	SOD-323	
73	LC15CI	350	15	16.7	22	1	1CH Bi	SOD-323	
74	LC24CI	350	24	26.7	43	1	1CH Bi	SOD-323	
75	LC36CI	350	36	40	60	1	1CH Bi	SOD-323	
76	LC2511CCW	200	2.5	3	5.8	1	1CH Bi For High temperature	SOD-323	
77	LC3311CCW	400	3	4	7	0.6	1CH Bi For High temperature	SOD-323	
78	SD0371P6W	1300	3.3	4.9	7	350	1CH Uni power	DFN1610-2	
79	SD0571P6W	1280	5	6	9	650	1CH Uni power	DFN1610-2	
80	SD0771P6W	1500	7	7.5	12	550	1CH Uni power	DFN1610-2	
81	ESD1285WP	1500	11	13.3	18.5	250	1CH Uni power	DFN1610-2	
82	SD1271P6W	1500	12	12.6	18	500	1CH Uni power	DFN1610-2	
83	SD1571P6W	1500	15	16.5	22	450	1CH Uni power	DFN1610-2	
84	SD1871P6W	1500	18	19.6	26	350	1CH Uni power	DFN1610-2	
85	SD2471P6W	1500	24	26.7	42	200	1CH Uni power	DFN1610-2	
86	SD3671P6W	1500	36	37	60	150	1CH Uni power	DFN1610-2	
87	USSD0571P6W	1300	5	6	7	350	1CH Uni Snapback	DFN1610	
88	SD0771D3W	1500	7	7.5	12	550	1CH Uni power	SOD-323	
89	SD1271D3W	1600	12	12.6	18	550	1CH Uni power	SOD-323	
90	SD1571D3W	1620	15	16.5	22	450	1CH Uni power	SOD-323	
91	SD1871D3W	1610	18	19.6	26	350	1CH Uni power	SOD-323	
92	SD2471D3W	1650	24	26.7	42	200	1CH Uni power	SOD-323	
93	SD3671D3W	1600	36	37	60	150	1CH Uni power	SOD-323	
94	SD4581D3W	1450	4.5	4.7	9	300	1CH Bi power	SOD-323	
95	SD0581D3W	1425	5	6	9	300	1CH Bi power	SOD-323	
96	SD4501P4-3	5500	4.5	4.5	10	2800	1CH Uni power	DFN2020-3	
97	SD0701P4-3	4000	7	7.5	10	1500	1CH Uni power	DFN2020-3	
98	SD1201P4-3	5400	12	13	22	1500	1CH Uni power	DFN2020-3	
99	SD2402P4-3	5400	24	25	40	800	1CH Uni power	DFN2020-3	
100	SM03	350	3.3	5	7	200	2CH Uni	SOT-23	
101	SM05	450	5	6	9.8	168	2CH Uni	SOT-23	
102	SM08	350	8	8.5	13.4	150	2CH Uni	SOT-23	
103	SM12	650	12	13.3	19	55	2CH Uni	SOT-23	
104	SM15	450	15	16.7	24	100	2CH Uni	SOT-23	
105	SM24	240	24	26.7	43	90	2CH Uni	SOT-23	
106	SM36	350	36	40	60	75	2CH Uni	SOT-23	
107	LC05CD	350	5	6	9.8	0.5	2CH Uni Ultra-low Cap	SOT-23	

No.	Part Number	Power (W)	Vrwm (V)	Vb(V)	Vc (V)@1A	C(PF)	Features	Package	Pin Configuration
108	ULC0502M3Q	100	5	6	12	0.3	2CH Uni Ultra-low Cap	SOT-723	
109	ULC0502T3	100	5	6	9.8	0.6	2CH Uni Ultra-low Cap	SOT-523	
110	LC05CW	100	5	6	9.8	1.2	2CH Uni Ultra-low Cap	SOT-323	
111	SM712	340	7/12	7.5/13.3	10/28	30	2CH Bi	SOT-23	
112	SMC33	300	3.3	3.1	7	100	2CH Bi	SOT-23	
113	SMC05	400	5	6	9.8	65	2CH Bi	SOT-23	
114	SMC08	350	8	8.5	13.4	75	2CH Bi	SOT-23	
115	SMC12	450	12	14.2	17	45	2CH Bi	SOT-23	
116	SMC15	270	15	18.5	30	40	2CH Bi	SOT-23	
117	SMC18	350	18	20	29	55	2CH Bi	SOT-23	
118	SMC24	420	24	28.5	35	30	2CH Bi	SOT-23	
119	SMC36	360	36	40	60	15	2CH Bi	SOT-23	
120	SMC24-323	150	24	27	36	5	2CH Bi	SOT-323	
121	SDA33W5	100	3.3	4.5	8	60	4CH Uni	SOT-353	
122	SDA05W5	150	5	6.1	10	90	4CH Uni	SOT-353	
123	SDA12W5	100	12	13.3	9.8	25	4CH Uni	SOT-353	
124	ULC0504T5	100	5	6	9.8	1	4CH Uni Ultra-low Cap	SOT-553	
125	ESDA3304T5	20	3.3	4.5	8.5	9	4CH Uni	SOT-553	
126	ESDA0504T5	60	5	6	9.8	0.7	4CH Uni	SOT-553	
127	SDA0504T6	100	5	6	9.8	30	4CH Uni	SOT-563	
128	SQV05C	100	5	6.5	9.8	20	4CH Bi	SOT-25	
129	ESDA3.3CW-4	100	3.3	4.5	7.5	13	4CH Bi	SOT-353	
130	ESDA5.0CW-4	100	5	6.5	9.8	10	4CH Bi	SOT-353	
131	ESDA0505T6	100	5	6	9.8	10	5CH Bi	SOT-563	
132	ESDA0905T6	100	9	10.8	16.6	7	5CH Bi	SOT-563	
133	ULC0502A	125	5	6	9.8	1	4CH Ultra-low Cap	SOT-563	
134	ULC05-2	150	5	6	15	0.9	4CH Ultra-low Cap	SOT-26	
135	SMS3.3	350	3.3	4.5	7.5	250	4CH Uni	SOT-26	
136	SMS05	350	5	6	9.8	200	4CH Uni	SOT-26	
137	SMS12	350	12	13.3	19	90	4CH Uni	SOT-26	
138	SMS15	350	15	16.7	30	48	4CH Uni	SOT-26	
139	SMS24	350	24	26.7	38	50	4CH Uni	SOT-26	
140	SR3.3	50	3.3	4	6.8	0.8	Ultra-low Cap	SOT-143	
141	SR05	50	5	6	10	0.45	Ultra-low Cap	SOT-143	
142	LC3302DT4	400	3.3	4.3	6.7	2	3CH Low Cap	SOT-143	
143	LC3301CDT4	400	3.3	4	7	3	3CH Low Cap	SOT-143	

No.	Part Number	Power (W)	Vrwm (V)	Vb(V)	Vc (V)@1A	C(PF)	Features	Package	Pin Configuration
144	LC0501CDT4	400	5	6	9.8	3	3CH Low Cap	SOT-143	
145	LC1201CDT4	400	12	13.3	19	3	3CH Low Cap	SOT-143	
146	LC2401CDT4	400	24	26.7	40	3	3CH Low Cap	SOT-143	
147	SDA05DT4	150	5	6	10	24	3CH Uni	SOT-143	
148	SR70	250	70	85	1.5	5	Low Cap	SOT-143	
149	LC0534DT4	450/100	5	6	9.812	2500.45	Ultra-low Cap	SOT-143	
150	LC1234DT4	450/100	125	13.36	1912	1100.45	Ultra-low Cap	SOT-143	
151	SDA05CW	100	5	6	9.8	50	5CH Uni	SOT-363	
152	SDA0505T6	100	5	6	18	55	5CH Uni	SOT-563	
153	SMS3.3C	350	3.3	4	7.5	250	5CH Uni	SOT-26	
154	SMS05C	350	5	6	9.8	200	5CH Uni	SOT-26	
155	SMS12C	350	12	13.3	19	90	5CH Uni	SOT-26	
156	SMS15C	350	15	16.7	24	70	5CH Uni	SOT-26	
157	SMS24C	350	24	26.7	38	50	5CH Uni	SOT-26	
158	LC0504F	100	5	6	15	0.8	5CH Ultra-low Cap	SOT-363	
159	ULC0504T5Q	100	5	6	12	0.5	5CH Ultra-low Cap	SOT-553	
160	ULC0504T6	100	5	6	15	0.7	5CH Ultra-low Cap	SOT-563	
161	USRV05-4	350	5	6	12.5	1	5CH Ultra-low Cap	SOT-26	
162	SRV05-4W	500	5	6	12	3	5CH Low Cap	SOT-26	
163	SRV0504	75	5	6	10	0.8	Ultra-low Cap	SOT-26	
164	ULC05-2	150	5	6	15	2	3CH Low Cap	SOT-26	
165	SM8LC03	800	3.3	4.5	7	15	4CH 14 positive 23 negative	SOP-8	
166	SM8LC05	800	5	6	10	15	4CH 14 positive 23 negative	SOP-8	
167	SM8LC12	800	12	13.3	19	15	4CH 14 positive 23 negative	SOP-8	
168	SM8LC15	800	15	16.7	25	15	4CH 14 positive 23 negative	SOP-8	
169	SM8LC24	800	24	26.7	40	15	4CH 14 positive 23 negative	SOP-8	
170	SM8LC36	800	36	40	53	15	4CH 14 positive 23 negative	SOP-8	
171	LCDA05	500	5	6	9.8	5	4CH 13 positive 24 negative	SOP-8	
172	LCDA12	500	12	13.3	19	5	4CH 13 positive 24 negative	SOP-8	
173	LCDA15	500	15	16.7	24	5	4CH 13 positive 24 negative	SOP-8	
174	LCDA24	500	24	26.7	43	5	4CH 13 positive 24 negative	SOP-8	
175	SMDA33C	500	3.3	4	6.5	5	4CH Bi	SOP-8	
176	SMDA05C	500	5	6	9.8	300	4CH Bi	SOP-8	
177	SMDA12C	500	12	13.3	19	100	4CH Bi	SOP-8	
178	SMDA15C	500	15	16.7	24	80	4CH Bi	SOP-8	
179	SMDA24C	500	24	26.7	43	50	4CH Bi	SOP-8	

No.	Part Number	Power (W)	V <sub>rwm</sub> (V)	V <sub>b</sub> (V)	V <sub>c</sub> (V)@1A	C(PF)	Features	Package	Pin Configuration
180	LCDA05C-4	460	5	6	9.8	5	4CH Bi	SOP-8	
181	LCDA12C-4	500	12	13.3	19	5	4CH Bi	SOP-8	
182	LCDA15C-4	500	15	16.7	24	5	4CH Bi	SOP-8	
183	LCDA24C-4	500	24	26.7	43	5	4CH Bi	SOP-8	
184	SMDA05C-7	300	5	6	9.8	350	4CH Bi	SOP-8	
185	SMDA12C-7	300	12	13.3	19	120	4CH Bi	SOP-8	
186	SMDA15C-7	300	15	16.7	24	75	4CH Bi	SOP-8	
187	SMDA24C-7	300	24	26.7	43	50	4CH Bi	SOP-8	
188	SLVJ2.8	400	2.8	3	7	3	1CH Uni	SOT-23	
189	SLVJ2.8-4	600	2.8	3	5	2	4CH Bi	SOP-8	
190	LC3304EP8	600	2.8	3	5	2	4CH Bi For High temperature	SOP-8	
191	SLVJ2.8-8	600	2.8	3	8.5	7	4CH Bi	SOP-8	
192	SRDA3.3-4	500	3.3	4	6.5	5	Low Cap	SOP-8	
193	SRDA05-4	500	5	6	9.8	5	Low Cap	SOP-8	
194	SRDA12-4	500	12	13.3	19	5	Low Cap	SOP-8	
195	SRDA15-4	500	15	16.7	24	5	Low Cap	SOP-8	
196	LC03-3.3	1800	3.3	3.5	11	8	Super power	SOP-8	
197	LC03-6	2000	6	6.8	15	8	Super power	SOP-8	
198	ULC0568M	150	5	6	9.8	1	Ultra-low Cap	MSOP-08	
199	ULC3306MB	50	3.3	4.5	7	0.5	Ultra-low Cap	MSOP-08	
200	ULC0544M	100	5	6	12	0.6	Ultra-low Cap	MSOP-10	
201	ULC0504M	100	5	6	12	1.5	Ultra-low Cap	MSOP-10	
202	LC0518MA	100	5	6	12	0.6	Ultra-low Cap	MSOP-10	
203	SMDA05C-8	300	5	6	9.8	350	7CH Bi	SO-14	
204	SMDA12C-8	300	12	13.3	19	120	7CH Bi	SO-14	
205	SMDA15C-8	300	15	16.7	24	75	7CH Bi	SO-14	
206	SMDA24C-8	300	24	26.7	43	50	7CH Bi	SO-14	
207	LCDA05C-8	500	5	6	9.8	5	8CH Bi	SOP-16	
208	LCDA12C-8	500	12	13.3	19	5	8CH Bi	SOP-16	
209	LCDA15C-8	500	15	16.7	24	5	8CH Bi	SOP-16	
210	LCDA24C-8	500	24	26.7	43	5	8CH Bi	SOP-16	
211	LC0502N	125	5	6	15	0.3	Ultra-low Cap	DFN1210-6	
212	ULC0503NL	100	5	6.5	16.5	0.5	Ultra-low Cap	DFN1510	
213	ULC0512TP6	75	5	6	18	0.2	Ultra-low Cap	DFN1510	
214	ULC0542T	75	5	6	10	0.3	2CH Ultra-low Cap	DFN1610	
215	ESDA3306P6	20	3.3	4.5	8.5	9	6CH	DFN1616-6	

No.	Part Number	Power (W)	Vrwm (V)	Vb(V)	Vc (V)@1A	C(PF)	Features	Package	Pin Configuration
216	ESDA0506P6	20	5	6	9.8	8	6CH	DFN1616-6	
217	ESDA1206P6	20	12	13.3	17	6	6CH	DFN1616-6	
218	ULC0504P	100	5	6	10	0.4	4CH Ultra-low Cap	DFN1616-6	
219	LC0504PL6	125	5	6	10	0.8	4CH Ultra-low Cap	DFN1616-6	
220	ULC33CP8	200	3	3.5	7	0.4	2CH Ultra-low Cap	DFN2010	
221	LC0504N	100	5	6	10	0.8	4CH Ultra-low Cap	DFN2020-6	
222	SDA33CP10	200	3.3	4	7.5	4.5	4CH Bi	DFN2510P8	
223	SDA05CP10	200	5	6	9.8	4.5	4CH Bi	DFN2510P8	
224	SDA08CP10	200	8	8	14	3.5	4CH Bi	DFN2510P8	
225	PUSB3FR4	28	3.3	6	2.5	0.35	Snapback	DFN2510P10	
226	ULC0524P	150	5	6	15	0.8	Ultra-low Cap	DFN2510P10	
227	ULC0544P10	40	5	5.8	9.8	0.3	4CH Ultra-low Cap	DFN2510P10	
228	ULC3304P10	60	3.3	4.5	6.5	0.4	4CH Ultra-low Cap	DFN2510P10	
229	ULC0504P10	100	5	6	9.8	0.5	4CH Ultra-low Cap	DFN2510P10	
230	ULC0804P10	100	8	8.5	14	0.5	4CH Ultra-low Cap	DFN2510P10	
231	ULC052510BP10	50	5	6	18	0.2	4CH Bi Ultra-low Cap	DFN2510P10	
232	LC2504P8	450	2.5	2.7	4.5	3	4CH Uni	DFN2626-10	
233	LC3304P8	450	3.3	3.8	5.5	3.8	4CH Uni	DFN2626-10	
234	LC0534N	90	5	6	12	0.6	4CH Uni	DFN3020-10	
235	LC3374N	1000	3.3	3.5	5.5	2.5	4CH Uni	DFN3020-10	
236	ULC0506N	150	5	6	8.5	0.35	6CH Ultra-low Cap	DFN3313	
237	ULC0568K	100	5	6	15	0.3	Ultra-low Cap	DFN4120P10	
238	EM2374K	260	5	6		8.5	Programmable	DFN1714	
239	EM2376K	260	5	6		8.5	Programmable	DFN2514	
240	EM2378K	260	5	6		8.5	Programmable	DFN3314	
241	EM6401M	260	5	6		34	Programmable	DFN3014	

1CH ---one channel Cap ---capacitance Bi ---bidirectional Uni ----unidirectional

# 超低电容聚合物 PESD

Part Number	$V_{RWM}$	$C_J$	Channel	Direction	Package
	(V)	(pF)			
PESD0521U005	5	0.05	1	Bi	0201
PESD0521U080	5	0.8	1	Bi	0201
PESD1221U005	12	0.05	1	Bi	0201
PESD1521U005	15	0.05	1	Bi	0201
PESD1621U005	16	0.05	1	Bi	0201
PESD1821U005	18	0.05	1	Bi	0201
PESD0542U005	5	0.05	1	Bi	0402
PESD0542U015	5	0.15	1	Bi	0402
PESD0542L003	5	3	1	Bi	0402
PESD0542L050	5	50	1	Bi	0402
PESD0942U005	9	0.05	1	Bi	0402
PESD1142L018	11	18	1	Bi	0402
PESD1242U005	12	0.05	1	Bi	0402
PESD1442U005	14	0.05	1	Bi	0402
PESD1642U005	16	0.05	1	Bi	0402
PESD1642L100	16	100	1	Bi	0402
PESD1842U005	18	0.05	1	Bi	0402
PESD1842L003	18	3	1	Bi	0402
PESD1842L015	18	15	1	Bi	0402
PESD2442U005	24	0.05	1	Bi	0402
PESD2442L001	24	1	1	Bi	0402
PESD2442L010	24	10	1	Bi	0402
PESD3342U005	33	0.05	1	Bi	0402
PESD3542U005	35	0.05	1	Bi	0402
PESD0563U005	5	0.05	1	Bi	0603
PESD0563U015	5	0.15	1	Bi	0603
PESD0563L003	5	3	1	Bi	0603
PESD1263U005	12	0.05	1	Bi	0603
PESD1463U005	14	0.05	1	Bi	0603
PESD1563U005	15	0.05	1	Bi	0603
PESD1663U005	16	0.05	1	Bi	0603
PESD1463L003	16	3	1	Bi	0603
PESD1863U005	18	0.05	1	Bi	0603
PESD1863U080	18	0.8	1	Bi	0603
PESD1863L010	18	10	1	Bi	0603
PESD1863L100	18	100	1	Bi	0603
PESD2463U005	24	0.05	1	Bi	0603
PESD2463U250	24	0.25	1	Bi	0603
PESD2463L003	24	3	1	Bi	0603
PESD3363U005	33	0.05	1	Bi	0603
PESD2510AV05	5	0.05	4	Uni	2510
PESD2510AV12	12	0.05	4	Uni	2510

# TVS 瞬态电压抑制二极管

## TVS 的简介

瞬态电压抑制二极管，简称 TVS。当 TVS 两极受到反向瞬态高能量冲击时，它能以  $10^{-12}$  s 的速度，将其两极间的高阻抗变为低阻抗，吸收高达数千瓦的浪涌功率，使两极间的电压钳位于一个预定值，有效地保护电子线路中的精密元器件，免受各种浪涌脉冲的损坏。

## TVS 的选型技巧

1. TVS 的  $V_{rwm}$  应高出 10% 以上的被保护电路的最大直流或连续工作电压、电路的额定标准电压和“高端”容限。若选用的  $V_{rwm}$  太低，器件可能进入雪崩或因反向漏电流太大影响电路的正常工作。串行连接分电压，并行连接分电流。
2. TVS 的  $V_c$  应小于被保护电路的损坏电压。
3. TVS 的功率  $P_{pp}$  应大于被保护电路内可能出现的峰值脉冲功率。
4. TVS 的  $I_{pp}$  应大于电路瞬态浪涌电流。
5. 对于数据接口电路的防雷保护，建议选用低电容的半导体 ESD。
6. 根据用途选用 TVS 的极性及封装结构。交流电路选用双极性 TVS 较为合理；多线保护选用半导体 ESD 阵列更为有利。

## Information of TVS

The transient Voltage Suppressor, referred to as TVS, the TVS operates by shunting excess current when the induced voltage exceeds the avalanche breakdown potential. It is a clamping device, suppressing all over voltages above its breakdown voltage. It automatically resets when the overvoltage goes away, but absorbs much more of the transient energy internally than a similarly rated crowbar device.

## The selection tips of TVS

1. The  $V_{rwm}$  of TVS should be more than 10% working voltage and tolerance, that protect the Max DC or continuous working voltage of circuits. If the  $V_{rwm}$  is too low, the device will affect the normal work of the circuits because of the snow slide or reverse electric leakage. The current will be divided in the parallel circuit and the voltage will be divided in the serial circuit.
2. The  $V_c$  of TVS should be less than the damaged voltage of protecting circuits.
3. The  $P_{pp}$  of TVS should be more than the possible peak pulse of protecting circuits.
4. The  $I_{pp}$  of TVS should be more than the surge current of transient circuit.
5. For the lightning protection of data interface circuit, the semiconductor ESD of low capacitance is better.
6. The selection of TVS' polarity and encapsulation structure should based the application. For the AC circuit, the dual polarity TVS is better, and for the Multi-line protection, the ESD array of semiconductor is better.



Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R</sub> @V <sub>R</sub>	V <sub>br</sub> @I <sub>T</sub>		I <sub>T</sub>	V <sub>c</sub> @I <sub>pp</sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
SMF3.3A	SMF3.3CA	200	3.3	50	4.10	-	1	7.3	27.0	SOD-123FL
SMF5.0A	SMF5.0CA	200	5.0	100	6.40	7.00	10	9.2	21.7	SOD-123FL
SMF6.0A	SMF6.0CA	200	6.0	100	6.67	7.37	10	10.3	19.4	SOD-123FL
SMF6.5A	SMF6.5CA	200	6.5	30	7.22	7.98	10	11.2	17.9	SOD-123FL
SMF7.0A	SMF7.0CA	200	7.0	10	7.78	8.60	10	12.0	16.7	SOD-123FL
SMF7.5A	SMF7.5CA	200	7.5	5	8.33	9.21	1	12.9	15.5	SOD-123FL
SMF8.0A	SMF8.0CA	200	8.0	2	8.89	9.83	1	13.6	14.7	SOD-123FL
SMF8.5A	SMF8.5CA	200	8.5	2	9.44	10.40	1	14.4	13.9	SOD-123FL
SMF9.0A	SMF9.0CA	200	9.0	2	10.00	11.1	1	15.4	13.0	SOD-123FL
SMF10A	SMF10CA	200	10.0	2	11.10	12.3	1	17.0	11.8	SOD-123FL
SMF11A	SMF11CA	200	11.0	2	12.20	13.5	1	18.2	11.0	SOD-123FL
SMF12A	SMF12CA	200	12.0	1	13.30	14.7	1	19.9	10.1	SOD-123FL
SMF13A	SMF13CA	200	13.0	1	14.40	15.9	1	21.4	9.3	SOD-123FL
SMF14A	SMF14CA	200	14.0	1	15.60	17.2	1	23.2	8.6	SOD-123FL
SMF15A	SMF15CA	200	15.0	1	16.70	18.5	1	24.4	8.2	SOD-123FL
SMF16A	SMF16CA	200	16.0	1	17.80	19.7	1	26.0	7.7	SOD-123FL
SMF17A	SMF17CA	200	17.0	1	18.90	20.9	1	27.6	7.2	SOD-123FL
SMF18A	SMF18CA	200	18.0	1	20.00	22.1	1	29.2	6.8	SOD-123FL
SMF20A	SMF20CA	200	20.0	1	22.20	24.5	1	32.4	6.2	SOD-123FL
SMF22A	SMF22CA	200	22.0	1	24.40	26.9	1	35.5	5.6	SOD-123FL
SMF24A	SMF24CA	200	24.0	1	26.70	29.5	1	38.9	5.1	SOD-123FL
SMF26A	SMF26CA	200	26.0	1	28.90	31.9	1	42.1	4.8	SOD-123FL
SMF28A	SMF28CA	200	28.0	1	31.10	34.4	1	45.4	4.4	SOD-123FL
SMF30A	SMF30CA	200	30.0	1	33.30	36.8	1	48.4	4.1	SOD-123FL
SMF33A	SMF33CA	200	33.0	1	36.70	40.6	1	53.3	3.8	SOD-123FL
SMF36A	SMF36CA	200	36.0	1	40.00	44.2	1	58.1	3.4	SOD-123FL
SMF40A	SMF40CA	200	40.0	1	44.40	49.1	1	64.5	3.1	SOD-123FL
SMF43A	SMF43CA	200	43.0	1	47.80	52.8	1	69.4	2.9	SOD-123FL
SMF45A	SMF45CA	200	45.0	1	50.00	55.3	1	72.7	2.8	SOD-123FL
SMF48A	SMF48CA	200	48.0	1	53.30	58.9	1	77.4	2.6	SOD-123FL
SMF51A	SMF51CA	200	51.0	1	56.70	62.7	1	82.4	2.4	SOD-123FL
SMF54A	SMF54CA	200	54.0	1	60.00	66.3	1	87.1	2.3	SOD-123FL

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
SMF58A	SMF58CA	200	58.0	1	64.40	71.2	1	93.6	2.1	SOD-123FL
SMF60A	SMF60CA	200	60.0	1	66.70	73.7	1	96.8	1.8	SOD-123FL
SMF64A	SMF64CA	200	64.0	1	71.10	78.6	1	103.0	1.7	SOD-123FL
SMF70A	SMF70CA	200	70.0	1	77.80	86	1	113.0	1.5	SOD-123FL
SMF75A	SMF75CA	200	75.0	1	83.30	92.1	1	121.0	1.4	SOD-123FL
SMF78A	SMF78CA	200	78.0	1	86.70	95.8	1	126.0	1.4	SOD-123FL
SMF85A	SMF85CA	200	85.0	1	94.40	104.00	1	137.0	1.3	SOD-123FL
SMF90A	SMF90CA	200	90.0	1	100.00	111.00	1	146.0	1.2	SOD-123FL
SMF100A	SMF100CA	200	100.0	1	111.00	123.00	1	162.0	1.1	SOD-123FL
SMF110A	SMF110CA	200	110.0	1	122.00	135.00	1	177.0	1.0	SOD-123FL
SMF120A	SMF120CA	200	120.0	1	133.00	147.00	1	193.0	0.9	SOD-123FL
SMF130A	SMF130CA	200	130.0	1	144.00	159.00	1	209.0	0.8	SOD-123FL
SMF150A	SMF150CA	200	150.0	1	167.00	185.00	1	243.0	0.7	SOD-123FL
SMF160A	SMF160CA	200	160.0	1	178.00	197.00	1	259.0	0.7	SOD-123FL
SMF170A	SMF170CA	200	170.0	1	189.00	209.00	1	275.0	0.6	SOD-123FL
SMF180A	SMF180CA	200	180.0	1	198.00	222.00	1	292.0	0.6	SOD-123FL
SMF220A	SMF220CA	200	220.0	1	246.00	272.00	1	356.0	0.5	SOD-123FL
P4SMFJ3.3A	P4SMFJ3.3CA	400	3.3	600	5.20	6.00	10	8.5	47.0	SOD-123FL
P4SMFJ5.0A	P4SMFJ5.0CA	400	5.0	800	6.40	7.25	10	9.2	43.5	SOD-123FL
P4SMFJ6.0A	P4SMFJ6.0CA	400	6.0	800	6.67	7.67	10	10.3	38.8	SOD-123FL
P4SMFJ6.5A	P4SMF J6.5CA	400	6.5	500	7.22	8.30	10	11.2	35.7	SOD-123FL
P4SMFJ7.0 A	P4SMFJ7.0CA	400	7.0	100	7.78	8.95	10	12.0	33.3	SOD-123FL
P4SMFJ7.5A	P4SMFJ7.5CA	400	7.5	100	8.33	9.58	1	12.9	31.0	SOD-123FL
P4SMFJ8.0A	P4SMFJ8.0CA	400	8.0	50	8.89	10.23	1	13.6	29.4	SOD-123FL
P4SMFJ8.5 A	P4SMFJ8.5CA	400	8.5	20	9.44	10.82	1	14.4	27.8	SOD-123FL
P4SMFJ9.0 A	P4SMFJ9.0CA	400	9.0	10	10.00	11.50	1	15.4	26.0	SOD-123FL
P4SMFJ10A	P4SMFJ10CA	400	10.0	10	11.10	12.30	1	17.0	23.5	SOD-123FL
P4SMFJ11A	P4SMFJ11CA	400	11.0	1	12.20	14.00	1	18.2	22.0	SOD-123FL
P4SMFJ12A	P4SMFJ12CA	400	12.0	1	13.30	14.70	1	19.9	20.1	SOD-123FL
P4SMFJ13A	P4SMFJ13CA	400	13.0	1	14.40	16.50	1	21.5	18.6	SOD-123FL
P4SMFJ14A	P4SMFJ14CA	400	14.0	1	15.60	17.20	1	23.2	17.2	SOD-123FL
P4SMFJ15A	P4SMFJ15CA	400	15.0	1	16.70	19.20	1	24.4	16.4	SOD-123FL

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R</sub> @V <sub>R</sub>	V <sub>br</sub> @I <sub>T</sub>		I <sub>T</sub>	V <sub>c</sub> @I <sub>pp</sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
P4SMFJ16A	P4SMFJ16CA	400	16.0	1	17.80	19.70	1	26.0	15.4	SOD-123FL
P4SMFJ17A	P4SMFJ17CA	400	17.0	1	18.90	21.70	1	27.6	14.5	SOD-123FL
P4SMFJ18A	P4SMFJ18CA	400	18.0	1	20.00	23.30	1	29.2	13.7	SOD-123FL
P4SMFJ20A	P4SMFJ20CA	400	20.0	1	22.20	25.50	1	32.4	12.4	SOD-123FL
P4SMFJ22A	P4SMFJ22CA	400	22.0	1	24.20	28.00	1	35.5	11.3	SOD-123FL
P4SMFJ24A	P4SMFJ24CA	400	24.0	1	26.00	30.00	1	38.9	10.3	SOD-123FL
P4SMFJ26A	P4SMFJ26CA	400	26.0	1	28.00	33.20	1	42.1	9.5	SOD-123FL
P4SMFJ28A	P4SMFJ28CA	400	28.0	1	31.10	35.80	1	45.4	8.8	SOD-123FL
P4SMFJ30A	P4SMFJ30CA	400	30.0	1	33.00	38.30	1	48.4	8.3	SOD-123FL
P4SMFJ33A	P4SMFJ33CA	400	33.0	1	36.70	42.20	1	53.3	7.5	SOD-123FL
P4SMFJ36A	P4SMFJ36CA	400	36.0	1	40.00	46.00	1	58.1	6.9	SOD-123FL
P4SMFJ40A	P4SMFJ40CA	400	40.0	1	44.40	51.10	1	64.5	6.2	SOD-123FL
P4SMFJ43A	P4SMFJ43CA	400	43.0	1	47.80	52.80	1	69.4	5.8	SOD-123FL
P4SMFJ45A	P4SMFJ45CA	400	45.0	1	50.00	57.50	1	72.7	5.5	SOD-123FL
P4SMFJ48A	P4SMFJ48CA	400	58.0	1	53.30	58.90	1	77.4	5.2	SOD-123FL
P4SMFJ51A	P4SMFJ51CA	400	51.0	1	56.70	65.20	1	82.4	4.9	SOD-123FL
P4SMFJ54A	P4SMFJ54CA	400	54.0	1	60.00	69.00	1	87.1	4.6	SOD-123FL
P4SMFJ58A	P4SMFJ58CA	400	58.0	1	64.40	71.20	1	93.6	4.3	SOD-123FL

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@Ipp</sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
SMAJ3.3A	SMAJ3.3CA	400	3.3	100	4.20	6.10	1	7.3	50.0	SMA
SMAJ5.0A	SMAJ5.0CA	400	5.0	100	6.40	7.00	10	9.2	43.5	SMA
SMAJ6.0A	SMAJ6.0CA	400	6.0	100	6.67	7.37	10	10.3	38.8	SMA
SMAJ6.5A	SMAJ6.5CA	400	6.5	50	7.22	7.98	10	11.2	35.7	SMA
SMAJ7.0A	SMAJ7.0CA	400	7.0	50	7.78	8.60	10	12.0	33.3	SMA
SMAJ7.5A	SMAJ7.5CA	400	7.5	50	8.33	9.21	1	12.9	31.0	SMA
SMAJ8.0A	SMAJ8.0CA	400	8.0	20	8.89	9.83	1	13.6	29.4	SMA
SMAJ8.5A	SMAJ8.5CA	400	8.5	10	9.44	10.40	1	14.4	27.8	SMA
SMAJ9.0A	SMAJ9.0CA	400	9.0	5	10.00	11.10	1	15.4	26.0	SMA
SMAJ10A	SMAJ10CA	400	10.0	2	11.10	12.30	1	17.0	23.5	SMA
SMAJ11A	SMAJ11CA	400	11.0	1	12.20	13.50	1	18.2	22.0	SMA
SMAJ12A	SMAJ12CA	400	12.0	1	13.30	14.70	1	19.9	20.1	SMA
SMAJ13A	SMAJ13CA	400	13.0	1	14.40	15.90	1	21.5	18.6	SMA
SMAJ14A	SMAJ14CA	400	14.0	1	15.60	17.20	1	23.2	17.3	SMA
SMAJ15A	SMAJ15CA	400	15.0	1	16.70	18.50	1	24.4	16.4	SMA
SMAJ16A	SMAJ16CA	400	16.0	1	17.80	19.70	1	26.0	15.4	SMA
SMAJ17A	SMAJ17CA	400	17.0	1	18.90	20.90	1	27.6	14.5	SMA
SMAJ18A	SMAJ18CA	400	18.0	1	20.00	22.10	1	29.2	13.7	SMA
SMAJ20A	SMAJ20CA	400	20.0	1	22.20	24.50	1	32.4	12.4	SMA
SMAJ22A	SMAJ22CA	400	22.0	1	24.40	26.90	1	35.5	11.3	SMA
SMAJ24A	SMAJ24CA	400	24.0	1	26.70	29.50	1	38.9	10.3	SMA
SMAJ26A	SMAJ26CA	400	26.0	1	28.90	31.90	1	42.1	9.5	SMA
SMAJ28A	SMAJ28CA	400	28.0	1	31.10	34.40	1	45.4	8.8	SMA
SMAJ30A	SMAJ30CA	400	30.0	1	33.30	36.80	1	48.4	8.3	SMA
SMAJ33A	SMAJ33CA	400	33.0	1	36.70	40.60	1	53.3	7.5	SMA
SMAJ36A	SMAJ36CA	400	36.0	1	40.00	44.20	1	58.1	6.9	SMA
SMAJ40A	SMAJ40CA	400	40.0	1	44.40	49.10	1	64.5	6.2	SMA
SMAJ43A	SMAJ43CA	400	43.0	1	47.80	52.80	1	69.4	5.8	SMA
SMAJ45A	SMAJ45CA	400	45.0	1	50.00	55.30	1	72.7	5.5	SMA
SMAJ48A	SMAJ48CA	400	48.0	1	53.30	58.90	1	77.4	5.2	SMA
SMAJ51A	SMAJ51CA	400	51.0	1	56.70	62.70	1	82.4	4.9	SMA
SMAJ54A	SMAJ54CA	400	54.0	1	60.00	66.30	1	87.1	4.6	SMA

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
SMAJ58A	SMAJ58CA	400	58.0	1	64.40	71.20	1	93.6	4.3	SMA
SMAJ60A	SMAJ60CA	400	60.0	1	66.70	73.70	1	96.8	4.1	SMA
SMAJ64A	SMAJ64CA	400	64.0	1	71.10	78.60	1	103.0	3.9	SMA
SMAJ70A	SMAJ70CA	400	70.0	1	77.80	86.00	1	113.0	3.6	SMA
SMAJ75A	SMAJ75CA	400	75.0	1	83.30	92.10	1	121.0	3.3	SMA
SMAJ78A	SMAJ78CA	400	78.0	1	86.70	95.80	1	126.0	3.2	SMA
SMAJ85A	SMAJ85CA	400	85.0	1	94.40	104.00	1	137.0	2.9	SMA
SMAJ90A	SMAJ90CA	400	90.0	1	100.00	111.00	1	146.0	2.8	SMA
SMAJ100A	SMAJ100CA	400	100.0	1	111.00	123.00	1	162.0	2.5	SMA
SMAJ110A	SMAJ110CA	400	110.0	1	122.00	135.00	1	177.0	2.3	SMA
SMAJ120A	SMAJ120CA	400	120.0	1	133.00	147.00	1	193.0	2.1	SMA
SMAJ130A	SMAJ130CA	400	130.0	1	144.00	159.00	1	209.0	1.9	SMA
SMAJ150A	SMAJ150CA	400	150.0	1	167.00	185.00	1	243.0	1.7	SMA
SMAJ160A	SMAJ160CA	400	160.0	1	178.00	197.00	1	259.0	1.6	SMA
SMAJ170A	SMAJ170CA	400	170.0	1	189.00	209.00	1	275.0	1.5	SMA
SMAJ180A	SMAJ180CA	400	180.0	1	201.00	222.00	1	292.0	1.4	SMA
SMAJ200A	SMAJ200CA	400	200.0	1	224.00	247.00	1	324.0	1.3	SMA
SMAJ220A	SMAJ220CA	400	220.0	1	246.00	272.00	1	356.0	1.1	SMA
SMAJ250A	SMAJ250CA	400	250.0	1	279.00	309.00	1	405.0	1.0	SMA
SMAJ300A	SMAJ300CA	400	300.0	1	335.00	371.00	1	486.0	0.8	SMA
SMAJ350A	SMAJ350CA	400	350.0	1	391.00	432.00	1	567.0	0.7	SMA
SMAJ400A	SMAJ400CA	400	400.0	1	447.00	494.00	1	648.0	0.6	SMA
SMAJ440A	SMAJ440CA	400	440.0	1	492.00	543.00	1	713.0	0.6	SMA
6AJ5.0A	6AJ5.0CA	600	5.0	100	6.40	7.00	10	9.2	65.2	SMA
6AJ6.0A	6AJ6.0CA	600	6.0	100	6.67	7.37	10	10.3	58.3	SMA
6AJ6.5A	6AJ6.5CA	600	6.5	50	7.22	7.98	10	11.2	53.6	SMA
6AJ7.0A	6AJ7.0CA	600	7.0	50	7.78	8.60	10	12.0	50.0	SMA
6AJ7.5A	6AJ7.5CA	600	7.5	50	8.33	9.21	1	12.9	46.5	SMA
6AJ8.0A	6AJ8.0CA	600	8.0	20	8.89	9.83	1	13.6	44.1	SMA
6AJ8.5A	6AJ8.5CA	600	8.5	10	9.44	10.40	1	14.4	41.7	SMA
6AJ9.0A	6AJ9.0CA	600	9.0	5	10.00	11.10	1	15.4	39.0	SMA
6AJ10A	6AJ10CA	600	10.0	2	11.00	12.30	1	17.0	35.3	SMA

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
6AJ11A	6AJ11CA	600	11.0	1	12.20	13.50	1	18.2	33.0	SMA
6AJ12A	6AJ12CA	600	12.0	1	13.30	14.70	1	19.9	30.2	SMA
6AJ13A	6AJ13CA	600	13.0	1	14.40	15.90	1	21.5	27.9	SMA
6AJ14A	6AJ14CA	600	14.0	1	15.60	17.20	1	23.2	25.9	SMA
6AJ15A	6AJ15CA	600	15.0	1	16.70	18.50	1	24.4	24.6	SMA
6AJ16A	6AJ16CA	600	16.0	1	17.80	19.70	1	26.0	23.1	SMA
6AJ17A	6AJ17CA	600	17.0	1	18.90	20.90	1	27.6	21.8	SMA
6AJ18A	6AJ18CA	600	18.0	1	20.00	22.10	1	29.2	20.6	SMA
6AJ20A	6AJ20CA	600	20.0	1	22.20	24.50	1	32.4	18.6	SMA
6AJ22A	6AJ22CA	600	22.0	1	24.40	26.90	1	35.5	16.9	SMA
6AJ24A	6AJ24CA	600	24.0	1	26.70	29.50	1	38.9	15.4	SMA
6AJ26A	6AJ26CA	600	26.0	1	28.90	31.90	1	42.1	14.3	SMA
6AJ28A	6AJ28CA	600	28.0	1	31.10	34.40	1	45.4	13.2	SMA
6AJ30A	6AJ30CA	600	30.0	1	33.30	36.80	1	48.4	12.4	SMA
6AJ33A	6AJ33CA	600	33.0	1	36.70	40.60	1	53.3	11.3	SMA
6AJ36A	6AJ36CA	600	36.0	1	40.00	44.20	1	58.1	10.4	SMA
6AJ40A	6AJ40CA	600	40.0	1	44.40	49.10	1	64.5	9.3	SMA
6AJ43A	6AJ43CA	600	43.0	1	47.80	52.80	1	69.4	8.7	SMA
6AJ45A	6AJ45CA	600	45.0	1	50.00	55.30	1	72.7	8.3	SMA
6AJ48A	6AJ48CA	600	48.0	1	53.30	58.90	1	77.4	7.8	SMA
6AJ51A	6AJ51CA	600	51.0	1	56.70	62.70	1	82.4	7.3	SMA
6AJ54A	6AJ54CA	600	54.0	1	60.00	66.30	1	87.1	6.9	SMA
6AJ58A	6AJ58CA	600	58.0	1	64.40	71.20	1	93.6	6.4	SMA
6AJ60A	6AJ60CA	600	60.0	1	66.70	73.70	1	96.8	6.2	SMA
6AJ64A	6AJ64CA	600	64.0	1	71.10	78.60	1	103.0	5.8	SMA
6AJ70A	6AJ70CA	600	70.0	1	77.80	86.00	1	113.0	5.3	SMA
6AJ75A	6AJ75CA	600	75.0	1	83.30	92.10	1	121.0	5.0	SMA
6AJ78A	6AJ78CA	600	78.0	1	86.70	95.80	1	126.0	4.8	SMA
6AJ85A	6AJ85CA	600	85.0	1	94.40	104.00	1	137.0	4.4	SMA
6AJ90A	6AJ90CA	600	90.0	1	100.00	111.00	1	146.0	4.1	SMA
6AJ100A	6AJ100CA	600	100.0	1	100.00	111.00	1	162.0	3.7	SMA
6AJ110A	6AJ110CA	600	110.0	1	111.00	123.00	1	177.0	3.4	SMA

Part No.		$P_{PP}$	$V_{RMW}$	$I_R@V_R$	$V_{br}@I_T$		$I_T$	$V_c@I_{pp}$	$I_{pp}$ 10/1000 $\mu s$	package
Uni-Polar	Bi-Polar	W	V	$\mu A$	min(V)	max(V)	mA	max(V)	A	
6AJ120A	6AJ120CA	600	120.0	1	122.00	135.00	1	193.0	3.1	SMA
6AJ130A	6AJ130CA	600	130.0	1	133.00	147.00	1	209.0	2.9	SMA
6AJ150A	6AJ150CA	600	150.0	1	144.00	159.00	1	243.0	2.5	SMA
6AJ160A	6AJ160CA	600	160.0	1	167.00	185.00	1	259.0	2.3	SMA
6AJ170A	6AJ170CA	600	170.0	1	178.00	197.00	1	275.0	2.2	SMA
6AJ180A	6AJ180CA	600	180.0	1	189.00	209.00	1	292.0	2.1	SMA
6AJ200A	6AJ200CA	600	200.0	1	201.00	222.00	1	324.0	1.9	SMA

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
SMBJ3.3A	SMBJ3.3CA	600	3.3	200	4.10	4.60	1	7.3	82.5	SMB
SMBJ5.0A	SMBJ5.0CA	600	5.0	300	6.40	7.00	10	9.2	65.2	SMB
SMBJ6.0A	SMBJ6.0CA	600	6.0	150	6.67	7.37	10	10.3	58.3	SMB
SMBJ6.5A	SMBJ6.5CA	600	6.5	100	7.22	7.98	10	11.2	53.6	SMB
SMBJ7.0A	SMBJ7.0CA	600	7.0	50	7.78	8.60	10	12.0	50.0	SMB
SMBJ7.5A	SMBJ7.5CA	600	7.5	50	8.33	9.21	1	12.9	46.5	SMB
SMBJ8.0A	SMBJ8.0CA	600	8.0	35	8.89	9.83	1	13.6	44.1	SMB
SMBJ8.5A	SMBJ8.5CA	600	8.5	10	9.44	10.40	1	14.4	41.7	SMB
SMBJ9.0A	SMBJ9.0CA	600	9.0	5	10.00	11.10	1	15.4	39.0	SMB
SMBJ10A	SMBJ10CA	600	10.0	2	11.10	12.30	1	17.0	35.3	SMB
SMBJ11A	SMBJ11CA	600	11.0	1	12.20	13.50	1	18.2	33.0	SMB
SMBJ12A	SMBJ12CA	600	12.0	1	13.30	14.70	1	19.9	30.2	SMB
SMBJ13A	SMBJ13CA	600	13.0	1	14.40	15.90	1	21.5	27.9	SMB
SMBJ14A	SMBJ14CA	600	14.0	1	15.60	17.20	1	23.2	25.9	SMB
SMBJ15A	SMBJ15CA	600	15.0	1	16.70	18.50	1	24.4	24.6	SMB
SMBJ16A	SMBJ16CA	600	16.0	1	17.80	19.70	1	26.0	23.1	SMB
SMBJ17A	SMBJ17CA	600	17.0	1	18.90	20.90	1	27.6	21.8	SMB
SMBJ18A	SMBJ18CA	600	18.0	1	20.00	22.10	1	29.2	20.6	SMB
SMBJ20A	SMBJ20CA	600	20.0	1	22.20	24.50	1	32.4	18.6	SMB
SMBJ22A	SMBJ22CA	600	22.0	1	24.40	26.90	1	35.5	16.9	SMB
SMBJ24A	SMBJ24CA	600	24.0	1	26.70	29.50	1	38.9	15.4	SMB
SMBJ26A	SMBJ26CA	600	26.0	1	28.90	31.90	1	42.1	14.3	SMB
SMBJ28A	SMBJ28CA	600	28.0	1	31.10	34.40	1	45.4	13.2	SMB
SMBJ30A	SMBJ30CA	600	30.0	1	33.30	36.80	1	48.4	12.4	SMB
SMBJ33A	SMBJ33CA	600	33.0	1	36.70	40.60	1	53.3	11.3	SMB
SMBJ36A	SMBJ36CA	600	36.0	1	40.00	44.20	1	58.1	10.4	SMB
SMBJ40A	SMBJ40CA	600	40.0	1	44.40	49.10	1	64.5	9.3	SMB
SMBJ43A	SMBJ43CA	600	43.0	1	47.80	52.80	1	69.4	8.7	SMB
SMBJ45A	SMBJ45CA	600	45.0	1	50.00	55.30	1	72.7	8.3	SMB
SMBJ48A	SMBJ48CA	600	48.0	1	53.30	58.90	1	77.4	7.8	SMB
SMBJ51A	SMBJ51CA	600	51.0	1	56.70	62.70	1	82.4	7.3	SMB
SMBJ54A	SMBJ54CA	600	54.0	1	60.00	66.30	1	87.1	6.9	SMB

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R</sub> @V <sub>R</sub>	V <sub>br</sub> @I <sub>T</sub>		I <sub>T</sub>	V <sub>c</sub> @I <sub>pp</sub>	I <sub>pp</sub> 10/1000 μs	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
SMBJ58A	SMBJ58CA	600	58.0	1	64.40	71.20	1	93.6	6.4	SMB
SMBJ60A	SMBJ60CA	600	60.0	1	66.70	73.70	1	96.8	6.2	SMB
SMBJ64A	SMBJ64CA	600	64.0	1	71.10	78.60	1	103.0	5.8	SMB
SMBJ70A	SMBJ70CA	600	70.0	1	77.80	86.00	1	113.0	5.3	SMB
SMBJ75A	SMBJ75CA	600	75.0	1	83.30	92.10	1	121.0	5.0	SMB
SMBJ78A	SMBJ78CA	600	78.0	1	86.70	95.80	1	125.0	4.8	SMB
SMBJ85A	SMBJ85CA	600	85.0	1	94.40	104.00	1	137.0	4.4	SMB
SMBJ90A	SMBJ90CA	600	90.0	1	100.00	111.00	1	146.0	4.1	SMB
SMBJ100A	SMBJ100CA	600	100.0	1	111.00	123.00	1	162.0	3.7	SMB
SMBJ110A	SMBJ110CA	600	110.0	1	122.00	135.00	1	177.0	3.4	SMB
SMBJ120A	SMBJ120CA	600	120.0	1	133.00	147.00	1	193.0	3.1	SMB
SMBJ130A	SMBJ130CA	600	130.0	1	144.00	159.00	1	209.0	2.9	SMB
SMBJ150A	SMBJ150CA	600	150.0	1	167.00	185.00	1	243.0	2.5	SMB
SMBJ160A	SMBJ160CA	600	160.0	1	178.00	197.00	1	259.0	2.3	SMB
SMBJ170A	SMBJ170CA	600	170.0	1	189.00	209.00	1	275.0	2.2	SMB
SMBJ180A	SMBJ180CA	600	180.0	1	201.00	222.00	1	292.0	2.1	SMB
SMBJ190A	SMBJ190CA	600	190.0	1	211.00	234.00	1	307.0	2.0	SMB
SMBJ200A	SMBJ200CA	600	200.0	1	224.00	247.00	1	324.0	1.9	SMB
SMBJ210A	SMBJ210CA	600	210.0	1	233.00	258.00	1	337.0	1.8	SMB
SMBJ220A	SMBJ220CA	600	220.0	1	246.00	272.00	1	356.0	1.7	SMB
SMBJ250A	SMBJ250CA	600	250.0	1	279.00	309.00	1	405.0	1.5	SMB
SMBJ300A	SMBJ300CA	600	300.0	1	335.00	371.00	1	486.0	1.3	SMB
SMBJ350A	SMBJ350CA	600	350.0	1	391.00	432.00	1	567.0	1.1	SMB
SMBJ400A	SMBJ400CA	600	400.0	1	447.00	494.00	1	648.0	0.9	SMB
SMBJ440A	SMBJ440CA	600	440.0	1	492.00	543.00	1	713.0	0.8	SMB
10BJ5.0A	10BJ5.0CA	1000	5.0	200	6.40	7.00	10	9.2	108.7	SMB
10BJ6.0A	10BJ6.0CA	1000	6.0	200	6.67	7.37	10	10.3	97.1	SMB
10BJ6.5A	10BJ6.5CA	1000	6.5	100	7.22	7.98	10	11.2	89.3	SMB
10BJ7.0A	10BJ7.0CA	1000	7.0	80	7.78	8.60	10	12.0	83.4	SMB
10BJ7.5A	10BJ7.5CA	1000	7.5	50	8.33	9.21	1	12.9	77.6	SMB
10BJ8.0A	10BJ8.0CA	1000	8.0	20	8.89	9.83	1	13.6	73.6	SMB
10BJ8.5A	10BJ8.5CA	1000	8.5	10	9.44	10.40	1	14.4	69.5	SMB

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 μs	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
10BJ9.0A	10BJ9.0CA	1000	9.0	5	10.00	11.10	1	15.4	65.0	SMB
10BJ10A	10BJ10CA	1000	10.0	2	11.10	12.30	1	17.0	58.9	SMB
10BJ11A	10BJ11CA	1000	11.0	1	12.20	13.50	1	18.2	55.0	SMB
10BJ12A	10BJ12CA	1000	12.0	1	13.30	14.70	1	19.9	50.3	SMB
10BJ13A	10BJ13CA	1000	13.0	1	14.40	15.90	1	21.5	46.6	SMB
10BJ14A	10BJ14CA	1000	14.0	1	15.60	17.20	1	23.2	43.1	SMB
10BJ15A	10BJ15CA	1000	15.0	1	16.70	18.50	1	24.4	41.0	SMB
10BJ16A	10BJ16CA	1000	16.0	1	17.80	19.70	1	26.0	38.5	SMB
10BJ17A	10BJ17CA	1000	17.0	1	18.90	20.90	1	27.6	36.3	SMB
10BJ18A	10BJ18CA	1000	18.0	1	20.00	22.10	1	29.2	34.3	SMB
10BJ20A	10BJ20CA	1000	20.0	1	22.00	24.50	1	32.4	30.9	SMB
10BJ22A	10BJ22CA	1000	22.0	1	24.40	26.90	1	35.5	28.2	SMB
10BJ24A	10BJ24CA	1000	24.0	1	26.70	29.50	1	38.9	25.7	SMB
10BJ26A	10BJ26CA	1000	26.0	1	28.90	31.90	1	42.1	23.8	SMB
10BJ28A	10BJ28CA	1000	28.0	1	31.30	34.40	1	45.4	22.1	SMB
10BJ30A	10BJ30CA	1000	30.0	1	33.30	36.80	1	48.4	20.7	SMB
10BJ33A	10BJ33CA	1000	33.0	1	36.70	40.60	1	53.3	18.8	SMB
10BJ36A	10BJ36CA	1000	36.0	1	40.00	44.20	1	58.1	17.3	SMB
10BJ40A	10BJ40CA	1000	40.0	1	44.40	49.10	1	64.5	15.5	SMB
10BJ43A	10BJ43CA	1000	43.0	1	47.80	52.80	1	69.4	14.4	SMB
10BJ45A	10BJ45CA	1000	45.0	1	50.00	55.30	1	72.7	13.8	SMB
10BJ48A	10BJ48CA	1000	48.0	1	53.30	58.90	1	77.4	13.0	SMB
10BJ51A	10BJ51CA	1000	51.0	1	56.70	62.70	1	82.4	12.2	SMB
10BJ54A	10BJ54CA	1000	54.0	1	60.00	66.30	1	87.1	11.5	SMB
10BJ58A	10BJ58CA	1000	58.0	1	64.40	71.20	1	93.6	10.7	SMB
10BJ60A	10BJ60CA	1000	60.0	1	66.70	73.70	1	96.8	10.4	SMB
10BJ64A	10BJ64CA	1000	64.0	1	71.10	78.60	1	103.0	9.7	SMB
10BJ70A	10BJ70CA	1000	70.0	1	77.80	86.00	1	113.0	8.9	SMB
10BJ75A	10BJ75CA	1000	75.0	1	83.30	92.10	1	121.0	8.3	SMB
10BJ78A	10BJ78CA	1000	78.0	1	86.70	95.80	1	126.0	8.0	SMB
10BJ85A	10BJ85CA	1000	85.0	1	94.40	104.00	1	137.0	7.3	SMB
10BJ90A	10BJ90CA	1000	90.0	1	100.00	111.00	1	146.0	6.9	SMB

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 μs	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
10BJ100A	10BJ100CA	1000	100.0	1	111.00	123.00	1	162.0	6.2	SMB
10BJ110A	10BJ110CA	1000	110.0	1	122.00	135.00	1	177.0	5.7	SMB
10BJ120A	10BJ120CA	1000	120.0	1	133.00	147.00	1	193.0	5.2	SMB
10BJ130A	10BJ130CA	1000	130.0	1	144.00	159.00	1	209.0	4.8	SMB
10BJ150A	10BJ150CA	1000	150.0	1	167.00	185.00	1	243.0	4.2	SMB
10BJ160A	10BJ160CA	1000	160.0	1	178.00	197.00	1	259.0	3.9	SMB
10BJ170A	10BJ170CA	1000	170.0	1	189.00	209.00	1	275.0	3.7	SMB
10BJ180A	10BJ180CA	1000	180.0	1	201.00	222.00	1	292.0	3.5	SMB
10BJ190A	10BJ190CA	1000	190.0	1	211.00	234.00	1	307.0	3.3	SMB
10BJ200A	10BJ200CA	1000	200.0	1	224.00	247.00	1	324.0	3.1	SMB
SMB15J28A	SMB15J28CA	1500	28.0	1	31.10	34.40	1	45.4	33.1	SMB
SMB15J30A	SMB15J30CA	1500	30.0	1	33.50	36.80	1	48.4	31.0	SMB
SMB15J33A	SMB15J33CA	1500	33.0	1	36.70	40.60	1	53.3	28.2	SMB
SMB15J36A	SMB15J36CA	1500	36.0	1	40.00	44.20	1	58.1	25.9	SMB
SMB30J28A	SMB30J28CA	3000	28.0	5	31.10	34.40	1	45.4	66.1	SMB
SMB30J30A	SMB30J30CA	3000	30.0	5	33.50	36.80	1	48.4	62.0	SMB
SMB30J33A	SMB30J33CA	3000	33.0	5	36.70	40.60	1	53.3	56.3	SMB
SMB30J36A	SMB30J36CA	3000	36.0	5	40.00	44.20	1	58.1	51.6	SMB
SMB30J40A	SMB30J40CA	3000	40.0	5	44.40	49.1	1	64.5	46.5	SMB

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
SMCJ5.0A	SMCJ5.0CA	1500	5.0	300	6.40	7.00	10	9.2	163.0	SMC
SMCJ6.0A	SMCJ6.0CA	1500	6.0	250	6.67	7.37	10	10.3	145.6	SMC
SMCJ6.5A	SMCJ6.5CA	1500	6.5	150	7.22	7.98	10	11.2	134.0	SMC
SMCJ7.0A	SMCJ7.0CA	1500	7.0	100	7.78	8.60	10	12.0	125.0	SMC
SMCJ7.5A	SMCJ7.5CA	1500	7.5	50	8.33	9.21	1	12.9	116.3	SMC
SMCJ8.0A	SMCJ8.0CA	1500	8.0	30	8.89	9.83	1	13.6	110.3	SMC
SMCJ8.5A	SMCJ8.5CA	1500	8.5	20	9.44	10.40	1	14.4	104.2	SMC
SMCJ9.0A	SMCJ9.0CA	1500	9.0	10	10.00	11.10	1	15.4	97.4	SMC
SMCJ10A	SMCJ10CA	1500	10.0	5	11.10	12.30	1	17.0	88.2	SMC
SMCJ11A	SMCJ11CA	1500	11.0	2	12.20	13.50	1	18.2	82.4	SMC
SMCJ12A	SMCJ12CA	1500	12.0	1	13.30	14.70	1	19.9	75.4	SMC
SMCJ13A	SMCJ13CA	1500	13.0	1	14.40	15.90	1	21.5	69.8	SMC
SMCJ14A	SMCJ14CA	1500	14.0	1	15.60	17.20	1	23.2	64.7	SMC
SMCJ15A	SMCJ15CA	1500	15.0	1	16.70	18.50	1	24.4	61.5	SMC
SMCJ16A	SMCJ16CA	1500	16.0	1	17.80	19.70	1	26.0	57.7	SMC
SMCJ17A	SMCJ17CA	1500	17.0	1	18.90	20.90	1	27.6	54.4	SMC
SMCJ18A	SMCJ18CA	1500	18.0	1	20.00	22.10	1	29.2	51.4	SMC
SMCJ20A	SMCJ20CA	1500	20.0	1	22.20	24.50	1	32.4	46.3	SMC
SMCJ22A	SMCJ22CA	1500	22.0	1	24.40	26.90	1	35.5	42.3	SMC
SMCJ24A	SMCJ24CA	1500	24.0	1	26.70	29.50	1	38.9	38.6	SMC
SMCJ26A	SMCJ26CA	1500	26.0	1	28.90	31.90	1	42.1	35.6	SMC
SMCJ28A	SMCJ28CA	1500	28.0	1	31.30	34.40	1	45.4	33.1	SMC
SMCJ30A	SMCJ30CA	1500	30.0	1	33.30	36.80	1	48.4	31.0	SMC
SMCJ33A	SMCJ33CA	1500	33.0	1	36.70	40.60	1	53.3	28.2	SMC
SMCJ36A	SMCJ36CA	1500	36.0	1	40.00	44.20	1	58.1	25.8	SMC
SMCJ40A	SMCJ40CA	1500	40.0	1	44.40	49.10	1	64.5	23.3	SMC
SMCJ43A	SMCJ43CA	1500	43.0	1	47.80	52.80	1	69.4	21.6	SMC
SMCJ45A	SMCJ45CA	1500	45.0	1	50.00	55.30	1	72.7	20.6	SMC
SMCJ48A	SMCJ48CA	1500	48.0	1	53.30	58.90	1	77.4	19.4	SMC
SMCJ51A	SMCJ51CA	1500	51.0	1	56.70	62.70	1	82.4	18.2	SMC
SMCJ54A	SMCJ54CA	1500	54.0	1	60.00	66.30	1	87.1	17.2	SMC
SMCJ58A	SMCJ58CA	1500	58.0	1	64.40	71.20	1	93.6	16.1	SMC

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
SMCJ60A	SMCJ60CA	1500	60.0	1	66.70	73.70	1	96.8	15.5	SMC
SMCJ64A	SMCJ64CA	1500	64.0	1	71.10	78.60	1	103.0	14.6	SMC
SMCJ70A	SMCJ70CA	1500	70.0	1	77.80	86.00	1	113.0	13.3	SMC
SMCJ75A	SMCJ75CA	1500	75.0	1	83.30	92.10	1	121.0	12.4	SMC
SMCJ78A	SMCJ78CA	1500	78.0	1	86.70	95.80	1	126.0	11.9	SMC
SMCJ85A	SMCJ85CA	1500	85.0	1	94.40	104.00	1	137.0	11.0	SMC
SMCJ90A	SMCJ90CA	1500	90.0	1	100.00	111.00	1	146.0	10.3	SMC
SMCJ100A	SMCJ100CA	1500	100.0	1	111.00	123.00	1	162.0	9.3	SMC
SMCJ110A	SMCJ110CA	1500	110.0	1	122.00	135.00	1	177.0	8.5	SMC
SMCJ120A	SMCJ120CA	1500	120.0	1	133.00	147.00	1	193.0	7.8	SMC
SMCJ130A	SMCJ130CA	1500	130.0	1	144.00	159.00	1	209.0	7.2	SMC
SMCJ150A	SMCJ150CA	1500	150.0	1	167.00	185.00	1	243.0	6.2	SMC
SMCJ160A	SMCJ160CA	1500	160.0	1	178.00	197.00	1	259.0	5.8	SMC
SMCJ170A	SMCJ170CA	1500	170.0	1	189.00	209.00	1	275.0	5.5	SMC
SMCJ180A	SMCJ180CA	1500	180.0	1	201.00	222.00	1	292.0	5.2	SMC
SMCJ190A	SMCJ190CA	1500	190.0	1	211.00	234.00	1	307.0	4.9	SMC
SMCJ200A	SMCJ200CA	1500	200.0	1	224.00	247.00	1	324.0	4.7	SMC
SMCJ210A	SMCJ210CA	1500	210.0	1	233.00	258.00	1	337.0	4.5	SMC
SMCJ220A	SMCJ220CA	1500	220.0	1	246.00	272.00	1	356.0	4.2	SMC
SMCJ250A	SMCJ250CA	1500	250.0	1	279.00	309.00	1	405.0	3.7	SMC
SMCJ300A	SMCJ300CA	1500	300.0	1	335.00	371.00	1	486.0	3.1	SMC
SMCJ350A	SMCJ350CA	1500	350.0	1	391.00	432.00	1	567.0	2.7	SMC
SMCJ400A	SMCJ400CA	1500	400.0	1	447.00	494.00	1	648.0	2.3	SMC
SMCJ440A	SMCJ440CA	1500	440.0	1	492.00	543.00	1	713.0	2.1	SMC
SMDJ5.0A	SMDJ5.0CA	3000	5.0	800	6.40	7.00	10	9.2	326.1	SMC
SMDJ6.0A	SMDJ6.0CA	3000	6.0	800	6.67	7.37	10	10.3	291.3	SMC
SMDJ6.5A	SMDJ6.5CA	3000	6.5	500	7.22	7.98	10	11.2	267.9	SMC
SMDJ7.0A	SMDJ7.0CA	3000	7.0	200	7.78	8.60	10	12.0	250.0	SMC
SMDJ7.5A	SMDJ7.5CA	3000	7.5	100	8.33	9.21	1	12.9	232.6	SMC
SMDJ8.0A	SMDJ8.0CA	3000	8.0	50	8.89	9.83	1	13.6	220.6	SMC
SMDJ8.5A	SMDJ8.5CA	3000	8.5	20	9.44	10.40	1	14.4	208.3	SMC
SMDJ9.0A	SMDJ9.0CA	3000	9.0	10	10.00	11.10	1	15.4	194.8	SMC

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
SMDJ10A	SMDJ10CA	3000	10.0	5	11.10	12.30	1	17.0	176.5	SMC
SMDJ11A	SMDJ11CA	3000	11.0	1	12.20	13.50	1	18.2	164.8	SMC
SMDJ12A	SMDJ12CA	3000	12.0	1	13.30	14.70	1	19.9	150.8	SMC
SMDJ13A	SMDJ13CA	3000	13.0	1	14.40	15.90	1	21.5	139.5	SMC
SMDJ14A	SMDJ14CA	3000	14.0	1	15.60	17.20	1	23.2	129.3	SMC
SMDJ15A	SMDJ15CA	3000	15.0	1	16.70	18.50	1	24.4	123.0	SMC
SMDJ16A	SMDJ16CA	3000	16.0	1	17.80	19.70	1	26.0	115.4	SMC
SMDJ17A	SMDJ17CA	3000	17.0	1	18.90	20.90	1	27.6	108.7	SMC
SMDJ18A	SMDJ18CA	3000	18.0	1	20.00	22.10	1	29.2	102.7	SMC
SMDJ20A	SMDJ20CA	3000	20.0	1	22.20	24.50	1	32.4	92.6	SMC
SMDJ22A	SMDJ22CA	3000	22.0	1	24.40	26.90	1	35.5	84.5	SMC
SMDJ24A	SMDJ24CA	3000	24.0	1	26.70	29.50	1	38.9	77.1	SMC
SMDJ26A	SMDJ26CA	3000	26.0	1	28.90	31.90	1	42.1	71.3	SMC
SMDJ28A	SMDJ28CA	3000	28.0	1	31.30	34.40	1	45.4	66.1	SMC
SMDJ30A	SMDJ30CA	3000	30.0	1	33.30	36.80	1	48.4	62.0	SMC
SMDJ33A	SMDJ33CA	3000	33.0	1	36.70	40.60	1	53.3	56.3	SMC
SMDJ36A	SMDJ36CA	3000	36.0	1	40.00	44.20	1	58.1	51.6	SMC
SMDJ40A	SMDJ40CA	3000	40.0	1	44.40	49.10	1	64.5	46.5	SMC
SMDJ43A	SMDJ43CA	3000	43.0	1	47.80	52.80	1	69.4	43.2	SMC
SMDJ45A	SMDJ45CA	3000	45.0	1	50.00	55.30	1	72.7	41.3	SMC
SMDJ48A	SMDJ48CA	3000	48.0	1	53.30	58.90	1	77.4	38.8	SMC
SMDJ51A	SMDJ51CA	3000	51.0	1	56.70	62.70	1	82.4	36.4	SMC
SMDJ54A	SMDJ54CA	3000	54.0	1	60.00	66.30	1	87.1	34.4	SMC
SMDJ58A	SMDJ58CA	3000	58.0	1	64.40	71.20	1	93.6	32.1	SMC
SMDJ60A	SMDJ60CA	3000	60.0	1	66.70	73.70	1	96.8	31.0	SMC
SMDJ64A	SMDJ64CA	3000	64.0	1	71.10	78.60	1	103.0	29.1	SMC
SMDJ70A	SMDJ70CA	3000	70.0	1	77.80	86.00	1	113.0	26.5	SMC
SMDJ75A	SMDJ75CA	3000	75.0	1	83.30	92.10	1	121.0	24.8	SMC
SMDJ78A	SMDJ78CA	3000	78.0	1	86.70	95.80	1	126.0	23.8	SMC
SMDJ85A	SMDJ85CA	3000	85.0	1	94.40	104.00	1	137.0	21.9	SMC
SMDJ90A	SMDJ90CA	3000	90.0	1	100.00	111.00	1	146.0	20.5	SMC
SMDJ100A	SMDJ100CA	3000	100.0	1	111.00	123.00	1	162.0	18.5	SMC

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
SMDJ110A	SMDJ110CA	3000	110.0	1	122.00	135.00	1	177.0	16.9	SMC
SMDJ120A	SMDJ120CA	3000	120.0	1	133.00	147.00	1	193.0	15.5	SMC
SMDJ130A	SMDJ130CA	3000	130.0	1	144.00	159.00	1	209.0	14.4	SMC
SMDJ150A	SMDJ150CA	3000	150.0	1	167.00	185.00	1	243.0	12.3	SMC
SMDJ160A	SMDJ160CA	3000	160.0	1	178.00	197.00	1	259.0	11.6	SMC
SMDJ170A	SMDJ170CA	3000	170.0	1	189.00	209.00	1	275.0	10.9	SMC
SMDJ180A	SMDJ180CA	3000	180.0	1	201.00	222.00	1	292.0	10.3	SMC
SMDJ190A	SMDJ190CA	3000	190.0	1	211.00	234.00	1	307.0	9.7	SMC
SMDJ200A	SMDJ200CA	3000	200.0	1	224.00	247.00	1	324.0	9.3	SMC
SMDJ210A	SMDJ210CA	3000	210.0	1	233.00	258.00	1	337.0	8.8	SMC
SMDJ220A	SMDJ220CA	3000	220.0	1	246.00	272.00	1	356.0	8.4	SMC
5.0SMDJ5.0A	5.0SMDJ5.0CA	5000	5.0	5000	6.40	7.25	50	9.2	554.3	SMC
5.0SMDJ6.0A	5.0SMDJ6.0CA	5000	6.0	5000	6.67	7.67	50	10.3	495.1	SMC
5.0SMDJ6.5A	5.0SMDJ6.5CA	5000	6.5	2000	7.22	8.30	50	11.2	455.4	SMC
5.0SMDJ7.0A	5.0SMDJ7.0CA	5000	7.0	1000	7.78	8.95	50	12.0	425.0	SMC
5.0SMDJ7.5A	5.0SMDJ7.5CA	5000	7.5	250	8.33	9.58	5	12.9	395.3	SMC
5.0SMDJ8.0A	5.0SMDJ8.0CA	5000	8.0	150	8.89	10.23	5	13.6	357.0	SMC
5.0SMDJ8.5A	5.0SMDJ8.5CA	5000	8.5	50	9.44	10.82	5	14.4	354.2	SMC
5.0SMDJ9.0A	5.0SMDJ9.0CA	5000	9.0	20	10.00	11.50	5	15.4	331.2	SMC
5.0SMDJ10A	5.0SMDJ10CA	5000	10.0	15	11.10	12.30	5	17.0	300.0	SMC
5.0SMDJ11A	5.0SMDJ11CA	5000	11.0	2	12.20	14.00	5	18.2	280.2	SMC
5.0SMDJ12A	5.0SMDJ12CA	5000	12.0	2	13.30	14.70	5	19.9	256.3	SMC
5.0SMDJ13A	5.0SMDJ13CA	5000	13.0	2	14.40	16.50	5	21.5	237.2	SMC
5.0SMDJ14A	5.0SMDJ14CA	5000	14.0	2	15.60	17.20	5	23.3	219.8	SMC
5.0SMDJ15A	5.0SMDJ15CA	5000	15.0	2	16.70	19.20	5	24.4	209.0	SMC
5.0SMDJ16A	5.0SMDJ16CA	5000	16.0	2	17.80	19.70	5	26.0	196.2	SMC
5.0SMDJ17A	5.0SMDJ17CA	5000	17.0	2	18.90	21.70	5	27.6	184.8	SMC
5.0SMDJ18A	5.0SMDJ18CA	5000	18.0	2	20.00	23.30	5	29.2	174.7	SMC
5.0SMDJ20A	5.0SMDJ20CA	5000	20.0	2	22.20	25.50	5	32.4	157.4	SMC
5.0SMDJ22A	5.0SMDJ22CA	5000	22.0	2	24.40	28.00	5	35.5	143.7	SMC
5.0SMDJ24A	5.0SMDJ24CA	5000	24.0	2	26.70	30.70	5	38.9	131.1	SMC
5.0SMDJ26A	5.0SMDJ26CA	5000	26.0	2	28.90	33.20	5	42.1	121.1	SMC

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
5.0SMDJ28A	5.0SMDJ28CA	5000	28.0	2	31.10	35.80	5	45.4	112.3	SMC
5.0SMDJ30A	5.0SMDJ30CA	5000	30.0	2	33.30	38.30	5	48.4	105.4	SMC
5.0SMDJ33A	5.0SMDJ33CA	5000	33.0	2	36.70	40.60	5	53.3	95.7	SMC
5.0SMDJ36A	5.0SMDJ36CA	5000	36.0	2	40.00	46.00	5	58.1	87.8	SMC
5.0SMDJ40A	5.0SMDJ40CA	5000	40.0	2	44.40	51.10	5	64.5	79.1	SMC
5.0SMDJ43A	5.0SMDJ43CA	5000	43.0	2	47.80	52.80	5	69.4	73.5	SMC
5.0SMDJ45A	5.0SMDJ45CA	5000	45.0	2	50.00	57.50	5	72.7	70.2	SMC
5.0SMDJ48A	5.0SMDJ48CA	5000	48.0	2	53.30	58.90	5	77.4	65.9	SMC
5.0SMDJ51A	5.0SMDJ51CA	5000	51.0	2	56.70	65.20	5	82.4	61.9	SMC
5.0SMDJ54A	5.0SMDJ54CA	5000	54.0	2	60.00	69.00	5	87.1	58.6	SMC
5.0SMDJ58A	5.0SMDJ58CA	5000	58.0	2	64.40	71.20	5	93.6	54.5	SMC
5.0SMDJ60A	5.0SMDJ60CA	5000	60.0	2	66.70	73.70	5	96.8	52.7	SMC
5.0SMDJ64A	5.0SMDJ64CA	5000	64.0	2	71.10	81.80	5	103.0	49.5	SMC
5.0SMDJ70A	5.0SMDJ70CA	5000	70.0	2	77.80	95.10	5	113.0	45.1	SMC
5.0SMDJ75A	5.0SMDJ75CA	5000	75.0	2	83.30	92.10	5	121.0	42.1	SMC
5.0SMDJ78A	5.0SMDJ78CA	5000	78.0	2	86.70	99.70	5	126.0	40.5	SMC
5.0SMDJ85A	5.0SMDJ85CA	5000	85.0	2	94.40	108.20	5	137.0	37.2	SMC
5.0SMDJ90A	5.0SMDJ90CA	5000	90.0	2	100.00	111.00	5	146.0	34.9	SMC
5.0SMDJ100A	5.0SMDJ100CA	5000	100.0	2	111.00	123.00	5	162.0	31.5	SMC
5.0SMDJ110A	5.0SMDJ110CA	5000	110.0	2	122.00	135.00	5	177.0	28.8	SMC
5.0SMDJ120A	5.0SMDJ120CA	5000	120.0	2	133.00	147.00	5	193.0	26.4	SMC
5.0SMDJ130A	5.0SMDJ130CA	5000	130.0	2	144.00	159.00	5	209.0	24.4	SMC
5.0SMDJ150A	5.0SMDJ150CA	5000	150.0	2	167.00	185.00	5	243.0	21.0	SMC
5.0SMDJ160A	5.0SMDJ160CA	5000	160.0	2	178.00	197.00	5	259.0	19.7	SMC
5.0SMDJ170A	5.0SMDJ170CA	5000	170.0	2	189.00	209.00	5	275.0	18.5	SMC
5.0SMDJ180A	5.0SMDJ180CA	5000	180.0	2	201.00	222.00	5	292.0	17.5	SMC
5.0SMDJ190A	5.0SMDJ190CA	5000	190.0	2	211.00	233.00	5	308.0	16.5	SMC
5.0SMDJ200A	5.0SMDJ200CA	5000	200.0	2	224.00	247.00	5	324.0	15.5	SMC
5.0SMDJ210A	5.0SMDJ210CA	5000	210.0	2	237.00	263.00	5	356.0	14.6	SMC
5.0SMDJ220A	5.0SMDJ220CA	5000	220.0	2	246.00	272.00	5	356.0	13.7	SMC
5.0SMDJ250A	5.0SMDJ250CA	5000	250.0	2	279.00	309.00	5	405.0	12.0	SMC
5.0SMDJ300A	5.0SMDJ300CA	5000	300.0	2	334.00	371.00	5	486.0	9.1	SMC

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
5.0SMDJ350A	5.0SMDJ350CA	5000	350.0	2	391.00	432.00	5	567.0	7.7	SMC
5.0SMDJ400A	5.0SMDJ400CA	5000	400.0	2	447.00	494.00	5	648.0	6.7	SMC
5.0SMDJ440A	5.0SMDJ440CA	5000	440.0	2	492.00	543.00	5	713.0	6.2	SMC
6.6SMDJ12A	6.6SMDJ12CA	6600	12.0	5	13.30	14.70	5	19.9	331.7	SMC
6.6SMDJ13A	6.6SMDJ13CA	6600	13.0	5	14.40	16.50	5	21.5	307.0	SMC
6.6SMDJ14A	6.6SMDJ14CA	6600	14.0	5	15.60	17.20	5	23.2	284.5	SMC
6.6SMDJ15A	6.6SMDJ15CA	6600	15.0	5	16.70	19.20	5	24.4	270.5	SMC
6.6SMDJ16A	6.6SMDJ16CA	6600	16.0	5	17.80	19.70	5	26.0	253.8	SMC
6.6SMDJ17A	6.6SMDJ17CA	6600	17.0	5	18.90	21.70	5	27.6	239.1	SMC
6.6SMDJ18A	6.6SMDJ18CA	6600	18.0	5	20.00	23.30	5	29.2	226.0	SMC
6.6SMDJ20A	6.6SMDJ20CA	6600	20.0	5	22.20	25.50	5	32.4	203.7	SMC
6.6SMDJ22A	6.6SMDJ22CA	6600	22.0	5	24.40	28.00	5	35.5	185.9	SMC
6.6SMDJ24A	6.6SMDJ24CA	6600	24.0	5	26.70	30.70	5	38.9	169.7	SMC
6.6SMDJ26A	6.6SMDJ26CA	6600	26.0	5	28.90	33.20	5	42.1	156.8	SMC
6.6SMDJ28A	6.6SMDJ28CA	6600	28.0	5	31.10	35.80	5	45.4	145.4	SMC
6.6SMDJ30A	6.6SMDJ30CA	6600	30.0	5	33.30	38.30	5	48.4	136.4	SMC
6.6SMDJ33A	6.6SMDJ33CA	6600	33.0	5	36.70	40.60	5	53.3	123.8	SMC
6.6SMDJ36A	6.6SMDJ36CA	6600	36.0	5	40.00	46.00	5	58.1	113.6	SMC
6.6SMDJ40A	6.6SMDJ40CA	6600	40.0	5	44.40	51.10	5	64.5	102.3	SMC
6.6SMDJ43A	6.6SMDJ43CA	6600	43.0	5	47.80	52.80	5	69.4	95.1	SMC
6.6SMDJ45A	6.6SMDJ45CA	6600	45.0	5	50.00	57.50	5	72.7	90.8	SMC
6.6SMDJ48A	6.6SMDJ48CA	6600	48.0	5	53.30	58.90	5	77.4	85.3	SMC
6.6SMDJ51A	6.6SMDJ51CA	6600	51.0	5	56.70	65.20	5	82.4	80.1	SMC
6.6SMDJ54A	6.6SMDJ54CA	6600	54.0	5	60.00	69.00	5	87.1	75.8	SMC
6.6SMDJ58A	6.6SMDJ58CA	6600	58.0	5	64.40	71.20	5	93.6	70.5	SMC
6.6SMDJ60A	6.6SMDJ60CA	6600	60.0	5	66.70	73.70	5	96.8	68.2	SMC
6.6SMDJ64A	6.6SMDJ64CA	6600	64.0	5	71.10	81.80	5	103.0	64.1	SMC
6.6SMDJ70A	6.6SMDJ70CA	6600	70.0	5	77.80	95.10	5	113.0	58.4	SMC
6.6SMDJ75A	6.6SMDJ75CA	6600	75.0	5	83.30	92.10	5	121.0	54.5	SMC
6.6SMDJ78A	6.6SMDJ78CA	6600	78.0	5	86.70	99.70	5	126.0	52.4	SMC
6.6SMDJ85A	6.6SMDJ85CA	6600	85.0	5	94.40	108.00	5	137.0	48.2	SMC
6.6SMDJ90A	6.6SMDJ90CA	6600	90.0	5	100.00	111.00	5	146.0	45.2	SMC

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 μs	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
6.6SMDJ100A	6.6SMDJ100CA	6600	100.0	5	111.00	123.00	5	162.0	40.7	SMC
6.6SMDJ110A	6.6SMDJ110CA	6600	110.0	5	122.00	135.00	5	177.0	37.3	SMC
6.6SMDJ120A	6.6SMDJ120CA	6600	120.0	5	133.00	147.00	5	193.0	34.2	SMC
6.6SMDJ130A	6.6SMDJ130CA	6600	130.0	5	144.00	159.00	5	209.0	31.6	SMC
6.6SMDJ150A	6.6SMDJ150CA	6600	150.0	5	167.00	185.00	5	243.0	27.2	SMC
6.6SMDJ160A	6.6SMDJ160CA	6600	160.0	5	178.00	197.00	5	259.0	25.5	SMC
6.6SMDJ170A	6.6SMDJ170CA	6600	170.0	5	189.00	209.00	5	275.0	24.0	SMC
6.6SMDJ180A	6.6SMDJ180CA	6600	180.0	5	201.00	222.00	5	292.0	22.6	SMC
6.6SMDJ190A	6.6SMDJ190CA	6600	190.0	5	211.00	233.00	5	308.0	21.4	SMC
6.6SMDJ200A	6.6SMDJ200CA	6600	200.0	5	224.00	247.00	5	324.0	20.4	SMC
6.6SMDJ210A	6.6SMDJ210CA	6600	210.0	5	237.00	263.00	5	356.0	18.5	SMC
6.6SMDJ220A	6.6SMDJ220CA	6600	220.0	5	246.00	272.00	5	356.0	18.5	SMC
6.6SMDJ250A	6.6SMDJ250CA	6600	250.0	5	279.00	309.00	5	405.0	16.3	SMC
6.6SMDJ300A	6.6SMDJ300CA	6600	300.0	5	335.00	371.00	5	486.0	13.6	SMC
6.6SMDJ350A	6.6SMDJ350CA	6600	350.0	5	391.00	432.00	5	567.0	11.6	SMC
6.6SMDJ400A	6.6SMDJ400CA	6600	400.0	5	447.00	494.00	5	648.0	10.2	SMC
6.6SMDJ440A	6.6SMDJ440CA	6600	440.0	5	492.00	543.00	5	713.0	9.3	SMC
8.0SMDJ24A	8.0SMDJ24CA	8000	24.0	5	26.70	29.50	1	38.9	205.7	SMC
8.0SMDJ26A	8.0SMDJ26CA	8000	26.0	5	28.90	31.90	1	42.1	190.1	SMC
8.0SMDJ28A	8.0SMDJ28CA	8000	28.0	5	31.10	34.40	1	45.4	176.2	SMC
8.0SMDJ30A	8.0SMDJ30CA	8000	30.0	5	33.30	36.80	1	48.4	165.3	SMC
8.0SMDJ33A	8.0SMDJ33CA	8000	33.0	5	36.70	40.60	1	53.3	150.1	SMC
8.0SMDJ36A	8.0SMDJ36CA	8000	36.0	5	40.00	44.20	1	58.1	137.8	SMC

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
P4KE6.8A	P4KE6.8CA	400	5.8	1000	6.45	7.14	10	10.5	39.0	DO-41
P4KE7.5A	P4KE7.5CA	400	6.4	500	7.13	7.88	10	11.3	36.3	DO-41
P4KE8.2A	P4KE8.2CA	400	7.0	200	7.79	8.61	10	12.1	33.9	DO-41
P4KE9.1A	P4KE9.1CA	400	7.8	50	8.65	9.55	1	13.4	30.6	DO-41
P4KE10A	P4KE10CA	400	8.6	10	9.50	10.50	1	14.5	28.3	DO-41
P4KE11A	P4KE11CA	400	9.4	1	10.50	11.60	1	15.6	26.3	DO-41
P4KE12A	P4KE12CA	400	10.2	1	11.40	12.60	1	16.7	24.6	DO-41
P4KE13A	P4KE13CA	400	11.1	1	12.40	13.70	1	18.2	22.5	DO-41
P4KE15A	P4KE15CA	400	12.8	1	14.30	15.80	1	21.2	19.3	DO-41
P4KE16A	P4KE16CA	400	13.6	1	15.20	16.80	1	22.5	18.2	DO-41
P4KE18A	P4KE18CA	400	15.3	1	17.10	18.90	1	25.5	16.1	DO-41
P4KE20A	P4KE20CA	400	17.1	1	19.00	21.00	1	27.7	14.8	DO-41
P4KE22A	P4KE22CA	400	18.8	1	20.90	23.10	1	30.6	13.4	DO-41
P4KE24A	P4KE24CA	400	20.5	1	22.80	25.20	1	33.2	12.3	DO-41
P4KE27A	P4KE27CA	400	23.1	1	25.70	28.40	1	37.5	10.9	DO-41
P4KE30A	P4KE30CA	400	25.6	1	28.50	31.50	1	41.4	9.7	DO-41
P4KE33A	P4KE33CA	400	28.2	1	31.40	34.70	1	45.7	9.0	DO-41
P4KE36A	P4KE36CA	400	30.8	1	34.20	37.80	1	49.9	8.2	DO-41
P4KE39A	P4KE39CA	400	33.3	1	37.10	41.00	1	53.9	7.6	DO-41
P4KE43A	P4KE43CA	400	36.8	1	40.90	45.20	1	59.3	6.9	DO-41
P4KE47A	P4KE47CA	400	40.2	1	44.70	49.40	1	64.8	6.3	DO-41
P4KE51A	P4KE51CA	400	43.6	1	48.50	53.60	1	70.1	5.8	DO-41
P4KE56A	P4KE56CA	400	47.8	1	53.20	58.80	1	77.0	5.3	DO-41
P4KE62A	P4KE62CA	400	53.0	1	58.90	65.10	1	85.0	4.8	DO-41
P4KE68A	P4KE68CA	400	58.1	1	64.60	71.40	1	92.0	4.5	DO-41
P4KE75A	P4KE75CA	400	64.1	1	71.30	78.80	1	103.0	4.0	DO-41
P4KE82A	P4KE82CA	400	70.1	1	77.90	86.10	1	113.0	3.6	DO-41
P4KE91A	P4KE91CA	400	77.8	1	86.50	95.50	1	125.0	3.3	DO-41
P4KE100A	P4KE100CA	400	85.5	1	95.00	105.00	1	137.0	3.0	DO-41
P4KE110A	P4KE110CA	400	94.0	1	105.00	116.00	1	152.0	2.7	DO-41
P4KE120A	P4KE120CA	400	102.0	1	114.00	126.00	1	165.0	2.5	DO-41
P4KE130A	P4KE130CA	400	111.0	1	124.00	137.00	1	179.0	2.3	DO-41

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
P4KE150A	P4KE150CA	400	128.0	1	143.00	158.00	1	207.0	2.0	DO-41
P4KE160A	P4KE160CA	400	136.0	1	152.00	168.00	1	219.0	1.9	DO-41
P4KE170A	P4KE170CA	400	145.0	1	162.00	179.00	1	234.0	1.8	DO-41
P4KE180A	P4KE180CA	400	154.0	1	171.00	189.00	1	246.0	1.7	DO-41
P4KE200A	P4KE200CA	400	171.0	1	190.00	210.00	1	274.0	1.5	DO-41
P4KE220A	P4KE220CA	400	185.0	1	209.00	231.00	1	328.0	1.3	DO-41
P4KE250A	P4KE250CA	400	214.0	1	237.00	263.00	1	344.0	1.2	DO-41
P4KE300A	P4KE300CA	400	256.0	1	285.00	315.00	1	414.0	1.0	DO-41
P4KE350A	P4KE350CA	400	300.0	1	332.00	368.00	1	482.0	0.9	DO-41
P4KE400A	P4KE400CA	400	342.0	1	380.00	420.00	1	548.0	0.8	DO-41
P4KE440A	P4KE440CA	400	376.0	1	418.00	462.00	1	602.0	0.7	DO-41
P4KE480A	P4KE480CA	400	408.0	1	456.00	504.00	1	658.0	0.6	DO-41
P4KE510A	P4KE510CA	400	434.0	1	485.00	535.00	1	698.0	0.6	DO-41
P4KE530A	P4KE530CA	400	477.0	1	503.00	556.00	1	725.0	0.6	DO-41
P4KE540A	P4KE540CA	400	486.0	1	513.00	567.00	1	740.0	0.5	DO-41
P4KE550A	P4KE550CA	400	495.0	1	522.50	577.50	1	760.0	0.5	DO-41

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R</sub> @V <sub>R</sub>	V <sub>br</sub> @I <sub>T</sub>		I <sub>T</sub>	V <sub>c</sub> @I <sub>pp</sub>	I <sub>pp</sub> 10/1000 μs	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
P6KE6.8A	P6KE6.8CA	600	5.8	150	6.45	7.14	10	10.5	57.2	DO-15
P6KE7.5A	P6KE7.5CA	600	6.4	100	7.13	7.88	10	11.3	53.1	DO-15
P6KE8.2A	P6KE8.2CA	600	7.0	50	7.79	8.61	10	12.1	49.6	DO-15
P6KE9.1A	P6KE9.1CA	600	7.8	20	8.65	9.55	1	13.4	44.8	DO-15
P6KE10A	P6KE10CA	600	8.6	10	9.50	10.50	1	14.5	41.4	DO-15
P6KE11A	P6KE11CA	600	9.4	5	10.50	11.60	1	15.6	38.5	DO-15
P6KE12A	P6KE12CA	600	10.2	2	11.40	12.60	1	16.7	36.0	DO-15
P6KE13A	P6KE13CA	600	11.1	1	12.40	13.70	1	18.2	33.0	DO-15
P6KE15A	P6KE15CA	600	12.8	1	14.30	15.80	1	21.2	28.3	DO-15
P6KE16A	P6KE16CA	600	13.6	1	15.20	16.80	1	22.5	26.7	DO-15
P6KE18A	P6KE18CA	600	15.3	1	17.10	18.90	1	25.2	23.8	DO-15
P6KE20A	P6KE20CA	600	17.1	1	19.00	21.00	1	27.7	21.7	DO-15
P6KE22A	P6KE22CA	600	18.8	1	20.90	23.10	1	30.6	19.7	DO-15
P6KE24A	P6KE24CA	600	20.5	1	22.80	25.20	1	33.2	18.1	DO-15
P6KE27A	P6KE27CA	600	23.1	1	25.70	28.40	1	37.5	16.0	DO-15
P6KE30A	P6KE30CA	600	25.6	1	28.50	31.50	1	41.4	14.5	DO-15
P6KE33A	P6KE33CA	600	28.2	1	31.40	34.70	1	45.7	13.2	DO-15
P6KE36A	P6KE36CA	600	30.8	1	34.20	37.80	1	49.9	12.1	DO-15
P6KE39A	P6KE39CA	600	33.3	1	37.10	41.00	1	53.9	11.2	DO-15
P6KE43A	P6KE43CA	600	36.8	1	40.90	45.20	1	59.3	10.2	DO-15
P6KE47A	P6KE47CA	600	40.2	1	44.70	49.40	1	64.8	9.3	DO-15
P6KE51A	P6KE51CA	600	43.6	1	48.50	53.60	1	70.1	8.6	DO-15
P6KE56A	P6KE56CA	600	47.8	1	53.20	58.80	1	77.0	7.8	DO-15
P6KE62A	P6KE62CA	600	53.0	1	58.90	65.10	1	85.0	7.1	DO-15
P6KE68A	P6KE68CA	600	58.1	1	64.60	71.40	1	92.0	6.6	DO-15
P6KE75A	P6KE75CA	600	64.1	1	71.30	78.80	1	103.0	5.9	DO-15
P6KE82A	P6KE82CA	600	70.1	1	77.90	86.10	1	113.0	5.4	DO-15
P6KE91A	P6KE91CA	600	77.8	1	86.50	95.50	1	125.0	4.8	DO-15
P6KE100A	P6KE100CA	600	85.5	1	95.00	105.00	1	137.0	4.4	DO-15
P6KE110A	P6KE110CA	600	94.0	1	105.00	116.00	1	152.0	4.0	DO-15
P6KE120A	P6KE120CA	600	102.0	1	114.00	126.00	1	165.0	3.7	DO-15
P6KE130A	P6KE130CA	600	111.0	1	124.00	137.00	1	179.0	3.4	DO-15

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 μs	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
P6KE150A	P6KE150CA	600	128.0	1	143.00	158.00	1	207.0	2.9	DO-15
P6KE160A	P6KE160CA	600	136.0	1	152.00	168.00	1	219.0	2.8	DO-15
P6KE170A	P6KE170CA	600	145.0	1	162.00	179.00	1	234.0	2.6	DO-15
P6KE180A	P6KE180CA	600	154.0	1	171.00	189.00	1	246.0	2.5	DO-15
P6KE200A	P6KE200CA	600	171.0	1	190.00	210.00	1	274.0	2.2	DO-15
P6KE220A	P6KE220CA	600	185.0	1	209.00	231.00	1	328.0	1.9	DO-15
P6KE250A	P6KE250CA	600	214.0	1	237.00	263.00	1	344.0	1.8	DO-15
P6KE300A	P6KE300CA	600	256.0	1	285.00	315.00	1	414.0	1.5	DO-15
P6KE350A	P6KE350CA	600	300.0	1	332.00	368.00	1	482.0	1.3	DO-15
P6KE400A	P6KE400CA	600	342.0	1	380.00	420.00	1	548.0	1.1	DO-15
P6KE440A	P6KE440CA	600	376.0	1	318.00	462.00	1	602.0	1.0	DO-15
P6KE480A	P6KE480CA	600	408.0	1	456.00	504.00	1	658.0	0.9	DO-15
P6KE510A	P6KE510CA	600	434.0	1	485.00	535.00	1	698.0	0.9	DO-15
P6KE550A	P6KE550CA	600	460.0	1	513.00	567.00	1	740.0	0.8	DO-15
P6KE600A	P6KE600CA	600	512.0	1	570.00	630.00	1	828.0	0.8	DO-15

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R</sub> @V <sub>R</sub>	V <sub>br</sub> @I <sub>T</sub>		I <sub>T</sub>	V <sub>c</sub> @I <sub>pp</sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
1.5KE6.8A	1.5KE6.8CA	1500	5.8	150	6.45	7.14	10	10.5	147.1	DO-201
1.5KE7.5A	1.5KE7.5CA	1500	6.4	100	7.13	7.88	10	11.3	132.8	DO-201
1.5KE8.2A	1.5KE8.2CA	1500	7.0	50	7.79	8.61	10	12.1	124.0	DO-201
1.5KE9.1A	1.5KE9.1CA	1500	7.8	20	8.65	9.55	1	13.4	112.0	DO-201
1.5KE10A	1.5KE10CA	1500	8.6	10	9.50	10.50	1	14.5	103.5	DO-201
1.5KE11A	1.5KE11CA	1500	9.4	5	10.50	11.60	1	15.6	96.2	DO-201
1.5KE12A	1.5KE12CA	1500	10.2	2	11.40	12.60	1	16.7	89.8	DO-201
1.5KE13A	1.5KE13CA	1500	11.1	1	12.40	13.70	1	18.2	82.5	DO-201
1.5KE15A	1.5KE15CA	1500	12.8	1	14.30	15.80	1	21.2	70.8	DO-201
1.5KE16A	1.5KE16CA	1500	13.6	1	15.20	16.80	1	22.5	66.7	DO-201
1.5KE18A	1.5KE18CA	1500	15.3	1	17.10	18.90	1	25.2	59.6	DO-201
1.5KE20A	1.5KE20CA	1500	17.1	1	19.00	21.00	1	27.7	54.2	DO-201
1.5KE22A	1.5KE22CA	1500	18.8	1	20.90	23.10	1	30.6	49.1	DO-201
1.5KE24A	1.5KE24CA	1500	20.5	1	22.80	25.20	1	33.2	45.2	DO-201
1.5KE27A	1.5KE27CA	1500	23.1	1	25.70	28.40	1	37.5	40.0	DO-201
1.5KE30A	1.5K3E30CA	1500	25.6	1	28.50	31.50	1	41.4	36.3	DO-201
1.5KE33A	1.5KE33CA	1500	28.2	1	31.40	34.70	1	45.7	32.9	DO-201
1.5KE36A	1.5KE36CA	1500	30.8	1	34.20	37.80	1	49.9	30.1	DO-201
1.5KE39A	1.5KE39CA	1500	33.3	1	37.10	41.00	1	53.9	27.9	DO-201
1.5KE43A	1.5KE43CA	1500	36.8	1	40.90	45.20	1	59.3	25.3	DO-201
1.5KE47A	1.5KE47CA	1500	40.2	1	44.70	49.40	1	64.8	23.2	DO-201
1.5KE51A	1.5KE51CA	1500	43.6	1	48.50	53.60	1	70.1	21.4	DO-201
1.5KE56A	1.5KE56CA	1500	47.8	1	53.20	58.80	1	77.0	19.5	DO-201
1.5KE62A	1.5KE62CA	1500	53.0	1	58.90	65.10	1	85.0	17.7	DO-201
1.5KE68A	1.5KE68CA	1500	58.1	1	64.60	71.40	1	92.0	16.4	DO-201
1.5KE75A	1.5KE75CA	1500	64.1	1	71.30	78.80	1	103.0	14.6	DO-201
1.5KE82A	1.5KE82CA	1500	70.1	1	77.90	86.10	1	113.0	13.3	DO-201
1.5KE91A	1.5KE91CA	1500	77.8	1	86.50	95.50	1	125.0	12.0	DO-201
1.5KE100A	1.5KE100CA	1500	85.5	1	95.00	105.00	1	137.0	11.0	DO-201
1.5KE110A	1.5KE110CA	1500	94.0	1	105.00	116.00	1	152.0	10.0	DO-201
1.5KE120A	1.5KE120CA	1500	102.0	1	114.00	126.00	1	165.0	9.1	DO-201
1.5KE130A	1.5KE130CA	1500	111.0	1	124.00	137.00	1	179.0	8.4	DO-201

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
1.5KE150A	1.5KE150CA	1500	128.0	1	143.00	158.00	1	207.0	7.3	DO-201
1.5KE160A	1.5KE160CA	1500	136.0	1	152.00	168.00	1	219.0	6.9	DO-201
1.5KE170A	1.5KE170CA	1500	145.0	1	162.00	179.00	1	234.0	6.5	DO-201
1.5KE180A	1.5KE180CA	1500	154.0	1	171.00	189.00	1	246.0	6.1	DO-201
1.5KE200A	1.5KE200CA	1500	171.0	1	190.00	210.00	1	274.0	5.5	DO-201
1.5KE220A	1.5KE220CA	1500	185.0	1	209.00	231.00	1	328.0	4.6	DO-201
1.5KE250A	1.5KE250CA	1500	214.0	1	237.00	263.00	1	344.0	4.4	DO-201
1.5KE300A	1.5KE300CA	1500	256.0	1	285.00	315.00	1	414.0	3.7	DO-201
1.5KE350A	1.5KE350CA	1500	300.0	1	332.00	368.00	1	482.0	3.2	DO-201
1.5KE400A	1.5KE400CA	1500	342.0	1	380.00	420.00	1	548.0	2.8	DO-201
1.5KE440A	1.5KE440CA	1500	376.0	1	418.00	462.00	1	602.0	2.5	DO-201
1.5KE480A	1.5KE480CA	1500	408.0	1	456.00	504.00	1	658.0	2.3	DO-201
1.5KE510A	1.5KE510CA	1500	434.0	1	485.00	535.00	1	698.0	2.1	DO-201
1.5KE550A	1.5KE550CA	1500	460.0	1	513.00	567.00	1	740.0	2.0	DO-201
1.5KE600A	1.5KE600CA	1500	512.0	1	570.00	630.00	1	828.0	1.8	DO-201

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R</sub> @V <sub>R</sub>	V <sub>br</sub> @I <sub>T</sub>		I <sub>T</sub>	V <sub>c</sub> @I <sub>pp</sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
3KP5.0A	3KP5.0CA	3000	5.0	150	6.40	7.00	10	9.2	326.1	R6
3KP6.0A	3KP6.0CA	3000	6.0	100	6.67	7.37	10	10.3	291.3	R6
3KP6.5A	3KP6.5CA	3000	6.5	50	7.22	7.98	10	11.2	267.9	R6
3KP7.0A	3KP7.0CA	3000	7.0	20	7.78	8.60	10	12.0	250.0	R6
3KP7.5A	3KP7.5CA	3000	7.5	10	8.33	9.21	1	12.9	232.6	R6
3KP8.0A	3KP8.0CA	3000	8.0	10	8.89	9.83	1	13.6	220.6	R6
3KP8.5A	3KP8.5CA	3000	8.5	10	9.44	10.40	1	14.4	208.3	R6
3KP9.0A	3KP9.0CA	3000	9.0	10	10.00	11.10	1	15.5	194.8	R6
3KP10A	3KP10CA	3000	10.0	5	11.10	12.30	1	17.0	176.5	R6
3KP11A	3KP11CA	3000	11.0	5	12.20	13.50	1	18.2	164.8	R6
3KP12A	3KP12CA	3000	12.0	2	13.30	14.70	1	19.9	150.8	R6
3KP13A	3KP13CA	3000	13.0	2	14.40	15.90	1	21.5	139.5	R6
3KP14A	3KP14CA	3000	14.0	1	15.60	17.20	1	23.2	129.3	R6
3KP15A	3KP15CA	3000	15.0	1	16.70	18.50	1	24.4	123.0	R6
3KP16A	3KP16CA	3000	16.0	1	17.80	19.70	1	26.0	115.4	R6
3KP17A	3KP17CA	3000	17.0	1	18.90	20.90	1	27.6	108.7	R6
3KP18A	3KP18CA	3000	18.0	1	20.00	22.10	1	29.2	102.7	R6
3KP20A	3KP20CA	3000	20.0	1	22.20	24.50	1	32.4	92.6	R6
3KP22A	3KP22CA	3000	22.0	1	24.40	26.90	1	35.5	84.5	R6
3KP24A	3KP24CA	3000	24.0	1	26.70	29.50	1	48.9	77.1	R6
3KP26A	3KP26CA	3000	26.0	1	28.90	31.90	1	42.1	71.3	R6
3KP28A	3KP28CA	3000	28.0	1	31.10	34.40	1	45.4	66.1	R6
3KP30A	3KP30CA	3000	30.0	1	33.30	36.80	1	48.4	62.0	R6
3KP33A	3KP33CA	3000	33.0	1	36.70	40.60	1	53.3	56.3	R6
3KP36A	3KP36CA	3000	36.0	1	40.00	44.20	1	58.1	51.6	R6
3KP40A	3KP40CA	3000	40.0	1	44.40	49.10	1	64.5	46.5	R6
3KP43A	3KP43CA	3000	43.0	1	47.80	52.80	1	69.4	43.2	R6
3KP45A	3KP45CA	3000	45.0	1	50.00	55.30	1	72.7	41.3	R6
3KP48A	3KP48CA	3000	48.0	1	53.30	58.90	1	77.4	38.8	R6
3KP51A	3KP51CA	3000	51.0	1	56.70	62.70	1	82.4	36.4	R6
3KP54A	3KP54CA	3000	54.0	1	60.00	66.30	1	87.1	34.4	R6
3KP58A	3KP58CA	3000	58.0	1	64.40	71.20	1	93.6	32.1	R6

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
3KP60A	3KP60CA	3000	60.0	1	66.70	73.70	1	96.8	31.0	R6
3KP64A	3KP64CA	3000	64.0	1	71.10	78.60	1	103.0	29.1	R6
3KP70A	3KP70CA	3000	70.0	1	77.80	86.00	1	113.0	26.5	R6
3KP75A	3KP75CA	3000	75.0	1	83.30	92.10	1	121.0	24.8	R6
3KP78A	3KP78CA	3000	78.0	1	86.70	95.80	1	126.0	23.8	R6
3KP85A	3KP85CA	3000	85.0	1	94.40	104.00	1	137.0	21.9	R6
3KP90A	3KP90CA	3000	90.0	1	100.00	111.00	1	146.0	20.5	R6
3KP100A	3KP100CA	3000	100.0	1	100.00	111.00	1	162.0	18.5	R6
3KP110A	3KP110CA	3000	110.0	1	111.00	123.00	1	177.0	16.9	R6
3KP120A	3KP120CA	3000	120.0	1	122.00	135.00	1	193.0	15.5	R6
3KP130A	3KP130CA	3000	130.0	1	133.00	147.00	1	209.0	14.4	R6
3KP150A	3KP150CA	3000	150.0	1	144.00	159.00	1	243.0	12.3	R6
3KP160A	3KP160CA	3000	160.0	1	167.00	185.00	1	259.0	11.6	R6
3KP170A	3KP170CA	3000	170.0	1	178.00	197.00	1	275.0	10.9	R6
3KP180A	3KP180CA	3000	180.0	1	189.00	209.00	1	292.0	10.3	R6
3KP190A	3KP190CA	3000	190.0	1	211.00	233.00	1	310.0	9.7	R6
3KP200A	3KP200CA	3000	200.0	1	224.00	247.00	1	329.2	9.3	R6
3KP210A	3KP210CA	3000	210.0	1	237.00	263.00	1	349.5	8.8	R6
3KP220A	3KP220CA	3000	220.0	1	246.00	272.00	1	371.1	8.4	R6
5KP5.0A	5KP5.0CA	5000	5.0	150	6.40	7.00	10	9.2	544.0	R6
5KP6.0A	5KP6.0PCA	5000	6.0	100	6.67	7.37	10	10.3	486.0	R6
5KP6.5A	5KP6.5CA	5000	6.5	50	7.22	7.98	10	11.2	448.0	R6
5KP7.0A	5KP7.0CA	5000	7.0	20	7.78	8.60	10	12.0	417.0	R6
5KP7.5A	5KP7.5CA	5000	7.5	10	8.33	9.21	1	12.9	388.0	R6
5KP8.0A	5KP8.0CA	5000	8.0	10	8.89	9.83	1	13.6	367.0	R6
5KP8.5A	5KP8.5CA	5000	8.5	10	9.44	10.40	1	14.4	347.0	R6
5KP9.0A	5KP9.0CA	5000	9.0	10	10.00	11.10	1	15.4	325.0	R6
5KP10A	5KP10CA	5000	10.0	5	11.10	12.30	1	17.0	294.0	R6
5KP11A	5KP11CA	5000	11.0	5	12.20	13.50	1	18.2	275.0	R6
5KP12A	5KP12CA	5000	12.0	2	13.30	14.70	1	19.9	252.0	R6
5KP13A	5KP13CA	5000	13.0	2	14.40	15.90	1	21.5	233.0	R6
5KP14A	5KP14CA	5000	14.0	1	15.60	17.20	1	23.2	216.0	R6

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
5KP15A	5KP15CA	5000	15.0	1	16.70	18.50	1	24.4	205.0	R6
5KP16A	5KP16CA	5000	16.0	1	17.80	19.70	1	26.0	193.0	R6
5KP17A	5KP17CA	5000	17.0	1	18.90	20.90	1	27.6	181.0	R6
5KP18A	5KP18CA	5000	18.0	1	20.00	22.10	1	29.2	172.0	R6
5KP20A	5KP20CA	5000	20.0	1	22.20	24.50	1	32.4	155.0	R6
5KP22A	5KP22CA	5000	22.0	1	24.40	26.90	1	35.5	141.0	R6
5KP24A	5KP24CA	5000	24.0	1	26.70	29.50	1	38.9	120.0	R6
5KP26A	5KP26CA	5000	26.0	1	28.90	31.90	1	42.1	119.0	R6
5KP28A	5KP28CA	5000	28.0	1	31.10	34.40	1	45.4	110.0	R6
5KP30A	5KP30CA	5000	30.0	1	33.30	36.80	1	48.4	103.0	R6
5KP33A	5KP33CA	5000	33.0	1	36.70	40.60	1	53.3	93.9	R6
5KP36A	5KP36CA	5000	36.0	1	40.00	44.20	1	58.1	86.1	R6
5KP40A	5KP40CA	5000	40.0	1	44.40	49.10	1	64.5	77.6	R6
5KP43A	5KP43CA	5000	43.0	1	47.80	52.80	1	69.4	72.1	R6
5KP45A	5KP45CA	5000	45.0	1	50.00	55.30	1	72.7	68.8	R6
5KP48A	5KP48CA	5000	48.0	1	53.30	58.90	1	77.4	64.7	R6
5KP51A	5KP51CA	5000	51.0	1	56.70	62.70	1	82.4	60.7	R6
5KP54A	5KP54CA	5000	54.0	1	60.00	66.30	1	87.1	57.5	R6
5KP58A	5KP58CA	5000	58.0	1	64.40	71.20	1	93.6	53.5	R6
5KP60A	5KP60CA	5000	60.0	1	66.70	73.70	1	96.8	51.7	R6
5KP64A	5KP64CA	5000	64.0	1	71.10	78.60	1	103.0	48.6	R6
5KP70A	5KP70CA	5000	70.0	1	77.80	86.00	1	113.0	44.3	R6
5KP75A	5KP75CA	5000	75.0	1	83.30	92.10	1	121.0	41.4	R6
5KP78A	5KP78CA	5000	78.0	1	86.70	95.80	1	126.0	39.7	R6
5KP85A	5KP85CA	5000	85.0	1	94.40	104.00	1	137.0	36.5	R6
5KP90A	5KP90CA	5000	90.0	1	100.00	111.00	1	146.0	34.3	R6
5KP100A	5KP100CA	5000	100.0	1	100.00	111.00	1	162.0	30.9	R6
5KP110A	5KP110CA	5000	110.0	1	111.00	123.00	1	177.0	28.3	R6
5KP120A	5KP120CA	5000	120.0	1	122.00	135.00	1	193.0	26.0	R6
5KP130A	5KP130CA	5000	130.0	1	133.00	147.00	1	209.0	24.0	R6
5KP150A	5KP150CA	5000	150.0	1	144.00	159.00	1	243.0	20.6	R6
5KP160A	5KP160CA	5000	160.0	1	167.00	185.00	1	259.0	19.3	R6

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R</sub> @V <sub>R</sub>	V <sub>br</sub> @I <sub>T</sub>		I <sub>T</sub>	V <sub>c</sub> @I <sub>pp</sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
5KP170A	5KP170CA	5000	170.0	1	178.00	197.00	1	275.0	18.2	R6
5KP180A	5KP180CA	5000	180.0	1	189.00	209.00	1	292.0	17.5	R6
5KP190A	5KP190CA	5000	190.0	1	211.00	233.00	1	310.0	16.5	R6
5KP200A	5KP200CA	5000	200.0	1	224.00	247.00	1	329.2	15.5	R6
5KP210A	5KP210CA	5000	210.0	1	237.00	263.00	1	349.5	14.6	R6
5KP220A	5KP220CA	5000	220.0	1	246.00	272.00	1	371.1	13.7	R6
5KP250A	5KP250CA	5000	250.0	1	277.00	306.00	1	425.0	12.0	R6
15KP17A	15KP17CA	15000	17.0	5000	18.90	20.90	5	29.3	515.4	R6
15KP18A	15KP18CA	15000	18.0	5000	20.00	22.10	5	30.9	488.7	R6
15KP20A	15KP20CA	15000	20.0	1500	22.20	24.50	5	34.3	440.2	R6
15KP22A	15KP22CA	15000	22.0	500	24.40	26.90	5	37.1	407.0	R6
15KP24A	15KP24CA	15000	24.0	150	26.70	29.50	5	40.7	371.0	R6
15KP26A	15KP26CA	15000	26.0	50	28.90	31.90	5	44.0	343.2	R6
15KP28A	15KP28CA	15000	28.0	25	31.10	34.40	5	47.5	317.9	R6
15KP30A	15KP30CA	15000	30.0	15	33.30	36.80	5	50.7	297.8	R6
15KP33A	15KP33CA	15000	33.0	2	36.70	40.60	5	54.7	276.1	R6
15KP36A	15KP36CA	15000	36.0	2	40.00	44.20	5	59.8	252.5	R6
15KP40A	15KP40CA	15000	40.0	2	44.40	49.10	5	65.8	229.5	R6
15KP43A	15KP43CA	15000	43.0	2	47.80	52.80	5	69.8	216.3	R6
15KP45A	15KP45CA	15000	45.0	2	50.00	55.30	5	72.8	207.4	R6
15KP48A	15KP48CA	15000	48.0	2	53.30	58.90	5	77.7	194.3	R6
15KP51A	15KP51CA	15000	51.0	2	56.70	62.70	5	82.9	182.1	R6
15KP54A	15KP54CA	15000	54.0	2	60.00	66.30	5	87.7	172.2	R6
15KP58A	15KP58CA	15000	58.0	2	64.40	71.20	5	93.8	161.0	R6
15KP60A	15KP60CA	15000	60.0	2	66.70	73.70	5	97.4	155.0	R6
15KP64A	15KP64CA	15000	64.0	2	71.10	78.60	5	104.2	144.9	R6
15KP70A	15KP70CA	15000	70.0	2	77.80	86.00	5	113.6	132.9	R6
15KP75A	15KP75CA	15000	75.0	2	83.30	92.10	5	122.0	123.8	R6
15KP78A	15KP78CA	15000	78.0	2	86.70	95.80	5	126.1	119.7	R6
15KP85A	15KP85CA	15000	85.0	2	94.40	104.00	5	137.6	109.7	R6
15KP90A	15KP90CA	15000	90.0	2	100.00	111.00	5	145.6	103.7	R6
15KP100A	15KP100CA	15000	100.0	2	100.00	111.00	5	161.3	93.6	R6

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
15KP110A	15KP110CA	15000	110.0	2	111.00	123.00	5	178.6	84.5	R6
15KP120A	15KP120CA	15000	120.0	2	122.00	135.00	5	192.3	78.5	R6
15KP130A	15KP130CA	15000	130.0	2	133.00	147.00	5	208.3	72.5	R6
15KP150A	15KP150CA	15000	150.0	2	144.00	159.00	5	241.9	62.4	R6
15KP160A	15KP160CA	15000	160.0	2	167.00	185.00	5	258.6	58.4	R6
15KP170A	15KP170CA	15000	170.0	2	178.00	197.00	5	272.7	55.4	R6
15KP180A	15KP180CA	15000	180.0	2	189.00	209.00	5	288.5	52.3	R6
15KP200A	15KP200CA	15000	200.0	2	224.00	247.00	5	319.1	47.3	R6
15KP220A	15KP220CA	15000	220.0	2	246.00	272.00	5	352.5	42.8	R6
15KP240A	15KP240CA	15000	240.0	2	268.00	292.00	5	384.6	39.3	R6
15KP260A	15KP260CA	15000	260.0	2	289.00	317.00	5	416.7	36.2	R6
15KP280A	15KP280CA	15000	280.0	2	311.00	341.00	5	454.5	33.2	R6
30KP28A	30KP28CA	30000	28.0	5000	31.28	33.60	50	50.0	600.0	R6
30KP30A	30KP30CA	30000	30.0	5000	33.51	36.00	50	55.2	543.5	R6
30KP33A	30KP33CA	30000	33.0	5000	36.90	39.60	50	58.5	512.8	R6
30KP36A	30KP36CA	30000	36.0	5000	40.20	43.20	50	61.8	485.4	R6
30KP39A	30KP39CA	30000	39.0	2000	43.60	46.80	20	67.2	446.4	R6
30KP42A	30KP42CA	30000	42.0	1000	46.90	50.40	10	72.0	416.7	R6
30KP43A	30KP43CA	30000	43.0	1000	48.00	51.60	10	73.0	411.0	R6
30KP45A	30KP45CA	30000	45.0	250	50.30	54.00	5	77.4	387.6	R6
30KP48A	30KP48CA	30000	48.0	150	53.60	57.60	5	81.6	367.6	R6
30KP51A	30KP51CA	30000	51.0	50	57.00	61.20	5	86.4	347.2	R6
30KP54A	30KP54CA	30000	54.0	20	60.30	64.80	5	91.4	328.2	R6
30KP58A	30KP58CA	30000	58.0	20	64.80	69.60	5	92.4	324.7	R6
30KP60A	30KP60CA	30000	60.0	15	67.00	72.00	5	102.0	294.1	R6
30KP64A	30KP64CA	30000	64.0	10	71.50	76.80	5	104.0	288.5	R6
30KP66A	30KP66CA	30000	66.0	2	73.70	79.20	5	107.0	280.4	R6
30KP70A	30KP70CA	30000	70.0	2	78.20	84.00	5	109.0	275.2	R6
30KP71A	30KP71CA	30000	71.0	2	79.30	85.20	5	111.5	269.1	R6
30KP72A	30KP72CA	30000	72.0	2	80.40	86.40	5	114.0	263.2	R6
30KP75A	30KP75CA	30000	75.0	2	83.80	90.00	5	119.4	251.3	R6
30KP78A	30KP78CA	30000	78.0	2	87.10	93.60	5	129.0	232.6	R6

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 μs	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
30KP84A	30KP84CA	30000	84.0	2	93.80	100.80	5	139.2	215.5	R6
30KP90A	30KP90CA	30000	90.0	2	100.50	108.00	5	146.4	204.9	R6
30KP96A	30KP96CA	30000	96.0	2	107.20	115.20	5	156.0	192.3	R6
30KP102A	30KP102CA	30000	102.0	2	113.90	122.40	5	165.6	181.2	R6
30KP108A	30KP108CA	30000	108.0	2	120.60	129.60	5	175.2	171.2	R6
30KP120A	30KP120CA	30000	120.0	2	134.00	144.00	5	194.4	154.3	R6
30KP132A	30KP132CA	30000	132.0	2	147.40	158.40	5	213.0	140.8	R6
30KP144A	30KP144CA	30000	144.0	2	160.80	172.80	5	223.2	134.4	R6
30KP150A	30KP150CA	30000	150.0	2	167.60	180.00	5	233.4	128.5	R6
30KP156A	30KP156CA	30000	156.0	2	174.30	187.20	5	245.0	122.4	R6
30KP160A	30KP160CA	30000	160.0	2	178.70	192.00	5	252.6	118.8	R6
30KP168A	30KP168CA	30000	168.0	2	187.70	201.60	5	272.4	110.1	R6
30KP170A	30KP170CA	30000	170.0	2	189.90	204.00	5	275.0	109.1	R6
30KP180A	30KP180CA	30000	180.0	2	201.10	216.00	5	290.4	103.3	R6
30KP198A	30KP198CA	30000	198.0	2	221.20	237.60	5	319.8	93.8	R6
30KP216A	30KP216CA	30000	216.0	2	241.30	259.20	5	348.6	86.1	R6
30KP240A	30KP240CA	30000	240.0	2	268.10	288.00	5	387.0	77.5	R6
30KP258A	30KP258CA	30000	258.0	2	288.20	309.60	5	414.4	72.4	R6
30KP260A	30KP260CA	30000	260.0	2	290.40	312.00	5	416.0	72.1	R6
30KP270A	30KP270CA	30000	270.0	2	301.60	324.00	5	436.2	68.8	R6
30KP280A	30KP280CA	30000	280.0	2	312.80	336.00	5	464.0	64.7	R6
30KP288A	30KP288CA	30000	288.0	2	321.70	345.60	5	469.9	63.8	R6
30KP400A	30KP400CA	30000	400.0	2	447.00	494.00	5	648.0	46.3	R6

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R</sub> @V <sub>R</sub>	V <sub>br</sub> @I <sub>T</sub>		I <sub>T</sub>	V <sub>c</sub> @I <sub>pp</sub>	I <sub>pp</sub> 10/1000 μs	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
P8S20A	P8S20CA	8000	20.0	5	22.20	24.50	5	32.4	246.9	R6 车用
P8S22A	P8S22CA	8000	22.0	5	24.40	26.90	5	35.5	225.3	R6 车用
P8S24A	P8S24CA	8000	24.0	5	26.70	29.50	5	38.9	205.6	R6 车用
P8S26A	P8S26CA	8000	26.0	5	28.90	31.90	5	42.1	190.1	R6 车用
P8S28A	P8S28CA	8000	28.0	5	31.10	34.40	5	45.4	176.2	R6 车用
P8S30A	P8S30CA	8000	30.0	5	33.30	36.80	5	48.4	165.3	R6 车用
P8S33A	P8S33CA	8000	33.0	5	36.70	40.60	5	53.3	150.1	R6 车用
P8S36A	P8S36CA	8000	36.0	5	40.00	44.20	5	58.1	137.7	R6 车用
P8S40A	P8S40CA	8000	40.0	5	44.40	49.10	5	64.5	124.1	R6 车用
P8S43A	P8S43CA	8000	43.0	5	47.80	52.80	5	69.4	115.3	R6 车用
P12S12A	P12S12CA	12000	12.0	300	13.30	14.70	1	19.9	603.0	R6 车用
P12S13A	P12S13CA	12000	13.0	300	14.40	16.50	1	21.5	558.1	R6 车用
P12S14A	P12S14CA	12000	14.0	50	15.60	17.20	1	23.2	517.2	R6 车用
P12S15A	P12S15CA	12000	15.0	50	16.70	19.20	1	24.4	491.8	R6 车用
P12S16A	P12S16CA	12000	16.0	50	17.80	19.70	1	26.0	461.5	R6 车用
P12S17A	P12S17CA	12000	17.0	50	18.90	21.70	1	27.6	434.8	R6 车用
P12S18A	P12S18CA	12000	18.0	10	20.00	23.30	1	29.2	411.0	R6 车用
P12S20A	P12S20CA	12000	20.0	10	22.20	25.50	1	32.4	370.4	R6 车用
P12S22A	P12S22CA	12000	22.0	5	24.40	28.00	1	35.5	338.0	R6 车用
P12S24A	P12S24CA	12000	24.0	5	26.70	30.70	1	38.9	308.5	R6 车用
P12S26A	P12S26CA	12000	26.0	5	28.90	33.20	1	42.1	285.0	R6 车用
P12S28A	P12S28CA	12000	28.0	5	31.10	35.80	1	45.4	264.3	R6 车用
P12S30A	P12S30CA	12000	30.0	5	33.30	38.30	1	48.4	247.9	R6 车用
P12S33A	P12S33CA	12000	33.0	5	36.70	42.20	1	53.3	225.1	R6 车用
P12S36A	P12S36CA	12000	36.0	5	40.00	46.00	1	58.1	206.5	R6 车用
P12S40A	P12S40CA	12000	40.0	5	44.40	51.10	1	64.5	186.1	R6 车用
P12S43A	P12S43CA	12000	43.0	5	47.80	52.80	1	69.4	172.9	R6 车用
P15S15A	P15S15CA	15000	15.0	500	16.70	19.20	1	24.4	614.8	R6 车用
P15S16A	P15S16CA	15000	16.0	500	17.80	19.70	1	26.0	576.9	R6 车用
P15S17A	P15S17CA	15000	17.0	500	18.90	21.70	1	27.6	543.5	R6 车用
P15S18A	P15S18CA	15000	18.0	200	20.00	23.30	1	29.2	513.7	R6 车用
P15S20A	P15S20CA	15000	20.0	200	22.20	25.50	1	32.4	463.0	R6 车用

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
P15S22A	P15S22CA	15000	22.0	200	24.40	28.00	1	35.5	422.5	R6 车用
P15S24A	P15S24CA	15000	24.0	200	26.70	30.70	1	38.9	385.6	R6 车用
P15S26A	P15S26CA	15000	26.0	200	28.90	33.20	1	42.1	356.3	R6 车用
P15S28A	P15S28CA	15000	28.0	200	31.10	35.80	1	45.4	330.4	R6 车用
P15S30A	P15S30CA	15000	30.0	200	33.30	38.30	1	48.4	309.9	R6 车用
P15S33A	P15S33CA	15000	33.0	200	36.70	42.20	1	53.3	281.4	R6 车用
P15S36A	P15S36CA	15000	36.0	200	40.00	46.00	1	58.1	258.2	R6 车用
P15S40A	P15S40CA	15000	40.0	200	44.40	51.10	1	64.5	232.6	R6 车用
P15S43A	P15S43CA	15000	43.0	200	47.80	52.80	1	69.4	216.1	R6 车用

Part Number	Reverse Stand-Off Voltage		Breakdown Voltage @I <sub>T</sub>		Test Current	Maximum Clamping Voltage@I	Current Rating @8/20us
	V <sub>AC</sub> (V)	V <sub>dc</sub> (V)	V <sub>b.min</sub> (V)	V <sub>b.Max</sub> (V)	I <sub>T</sub> (mA)	pp V <sub>c</sub> (V)	I <sub>pp</sub> (A)
AK3-033C	23	33	35	39.0	1	66	3000
AK3-038C	27	38	40.5	49.5	1	69	3000
AK3-058C	40	58	64	72.0	1	110	3000
AK3-066C	45	66	70	77.5	1	125	3000
AK3-076C	54	76	85	94.0	1	140	3000
AK3-1100C	770	1100	1200	1326.5	1	2000	3000
AK3-150C	105	150	165	182.5	1	240	3000
AK3-170C	130	170	180	199.0	1	260	3000
AK3-380C	275	380	401	443.5	1	520	3000
AK3-500C	385	500	558	617.0	1	868	3000
AK6-033C	23	33	35	39.0	1	66	6000
AK6-038C	27	38	40.5	49.5	1	69	6000
AK6-058C	40	58	64	72.0	1	110	6000
AK6-066C	45	66	70	77.5	1	125	6000
AK6-076C	54	76	85	94.0	1	140	6000
AK6-100C	72	100	110	121.5	1	165	6000
AK6-150C	105	150	165	182.5	1	240	6000
AK6-170C	130	170	180	199.0	1	260	6000
AK6-240C	180	240	250	276.5	1	340	6000
AK6-380C	275	380	401	443.5	1	520	6000
AK6-500C	385	500	558.0	617.0	1	868	6000
AK6-650C	460	650	680.0	751.5	1	900	6000
AK10-033C	23	33	35	39	1	66	10000
AK10-038C	27	38	40.5	49.5	1	69	10000
AK10-058C	40	58	64	72	1	110	10000
AK10-076C	54	76	85	94	1	140	10000
AK10-150C	105	150	165	182.5	1	240	10000
AK10-380C	275	380	401	443.5	1	520	10000
AK10-460C	330	460	500	552.5	1	770	10000
AK10-500C	385	500	558	617	1	868	10000
AK20-033C	23	33	35	39	1	66	20000
AK20-038C	27	38	40.5	49.5	1	69	20000
AK20-042C	30	42	47	52	1	77	20000

Part No.		P <sub>PP</sub>	V <sub>RMW</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>br@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>c@I<sub>pp</sub></sub>	I <sub>pp</sub> 10/1000 us	package
Uni-Polar	Bi-Polar	W	V	μA	min(V)	max(V)	mA	max(V)	A	
SM6S15A	SM6S15CA	4600	15.0	5	16.70	18.50	5	24.4	189.0	DO-218AB 车用
SM6S16A	SM6S16CA	4600	16.0	5	17.80	19.70	5	26.0	177.0	DO-218AB 车用
SM6S17A	SM6S17CA	4600	17.0	5	18.90	20.90	5	27.6	167.0	DO-218AB 车用
SM6S18A	SM6S18CA	4600	18.0	5	20.00	22.10	5	29.2	158.0	DO-218AB 车用
SM6S20A	SM6S20CA	4600	20.0	5	22.20	24.50	5	32.4	142.0	DO-218AB 车用
SM6S22A	SM6S22CA	4600	22.0	5	24.40	26.90	5	35.5	130.0	DO-218AB 车用
SM6S24A	SM6S24CA	4600	24.0	5	26.70	29.50	5	38.9	118.0	DO-218AB 车用
SM6S26A	SM6S26CA	4600	26.0	5	28.90	31.90	5	42.1	109.0	DO-218AB 车用
SM6S28A	SM6S28CA	4600	28.0	5	31.10	34.40	5	45.4	101.0	DO-218AB 车用
SM6S30A	SM6S30CA	4600	30.0	5	33.30	36.80	5	48.4	95.0	DO-218AB 车用
SM6S33A	SM6S33CA	4600	33.0	5	36.70	40.60	5	53.3	86.0	DO-218AB 车用
SM6S36A	SM6S36CA	4600	36.0	5	40.00	44.20	5	58.1	79.0	DO-218AB 车用
SM8S15A	SM8S15CA	6600	15.0	5	16.70	18.50	5	24.4	270.0	DO-218AB 车用
SM8S16A	SM8S16CA	6600	16.0	5	17.80	19.70	5	26.0	253.0	DO-218AB 车用
SM8S17A	SM8S17CA	6600	17.0	5	18.90	20.90	5	27.6	239.0	DO-218AB 车用
SM8S18A	SM8S18CA	6600	18.0	5	20.00	22.10	5	29.2	226.0	DO-218AB 车用
SM8S20A	SM8S20CA	6600	20.0	5	22.20	24.50	5	32.4	204.0	DO-218AB 车用
SM8S22A	SM8S22CA	6600	22.0	5	24.40	26.90	5	35.5	186.0	DO-218AB 车用
SM8S24A	SM8S24CA	6600	24.0	5	26.70	29.50	5	38.9	170.0	DO-218AB 车用
SM8S26A	SM8S26CA	6600	26.0	5	28.90	31.90	5	42.1	157.0	DO-218AB 车用
SM8S28A	SM8S28CA	6600	28.0	5	31.10	34.40	5	45.4	145.0	DO-218AB 车用
SM8S30A	SM8S30CA	6600	30.0	5	33.30	36.80	5	48.4	136.0	DO-218AB 车用
SM8S32A	SM8S32CA	6600	32.0	5	35.50	39.40	5	51.4	128.5	DO-218AB 车用
SM8S33A	SM8S33CA	6600	33.0	5	36.70	40.60	5	53.3	124.0	DO-218AB 车用
SM8S36A	SM8S36CA	6600	36.0	5	40.00	44.20	5	58.1	114.0	DO-218AB 车用
SM8S40A	SM8S40CA	6600	40.0	5	44.40	49.10	5	64.5	102.0	DO-218AB 车用
SM8S43A	SM8S43CA	6600	43.0	5	47.80	52.80	5	69.4	95.1	DO-218AB 车用

# TSS 半导体放电管

## TSS 的简介

半导体放电管，简称 TSS。TSS 是根据可控硅原理采用离子注入技术生产的一种新型保护器件，具有精确导通、快速响应（响应时间 ns 级）、浪涌吸收能力较强、双向对称、可靠性高等特点。由于其浪涌通流能力较同尺寸的 TVS 管强，可在无源电路中代替 TVS 管使用。但它的导通特性接近于短路，不能直接用于有源电路中，在这样的电路中使用时必须加限流组件，使其续流小于最小维持电流。半导体过压保护器有贴装式、直插式和轴向引线式三种封装形式。

## TSS 的选型技巧：

1. TSS 的  $V_{dm}$  应高于被保护电路的最大直流或连续工作电压、电路的额定标准电压和“高端”容限。若选用的  $V_{dm}$  太低，器件可能进入雪崩或因反向漏电流太大影响电路的正常工作。串行连接分电压，并行连接分电流；
2. 转折电压  $V_{BO}$  必须小于被保护电路所允许的最大瞬间峰值电压；
3. TSS 的  $I_{PP}$  应大于电路瞬态浪涌电流；
4. 根据 PCB 布局或喜好选用 TSS 封装结构。

## Information of TSS

Thyristor Surge Suppressors, referred as TSS, TSS is based on the principle of SCR using ion implantation and production of a new type of protective device, with precise turn-on, rapid response (response time NS grade), surge absorption ability, bi-directional, high reliability characteristics. Due to its surge capacity is stronger more than same size TVS, and can be used instead TVS tube in passive circuits.

They are small in size compared to their high surge current ratings. Operating voltages range from 20 Volts to 250 Volts with current ratings of 50 Amps to 200 Amps for a 10/1000 $\mu$ s waveform. Package configurations include axial lead, surface mount or cellular discs.

## The selection tips of TSS:

1.  $V_{dm}$  of TSS should be higher than the Max of the protected circuit DC or standard rated voltage working voltage, circuit and "high-end" allowances. If the  $V_{dm}$  is too low, the devices may enter an avalanche or much reverse current circuit to work properly. The serial should be connected the component voltage, and the parallel to partial current;
2.  $V_{BO}$  of the TSS must be less than the permitted circuit maximum instantaneous peak voltage.
3. The  $I_{PP}$  of TSS should be higher than the transient surge circuit;
4. Selecting the package according the PCB or preference.



Part Number	Vdrn (V)	Idrm ( $\mu$ A)	Vs (V)	Ih (mA)	Is (mA)	It (A)	Vt (V)	Cj (pF)	Package
P0080TA	6	5	25	20	800	2.2	4	30	SMA
P0220TA	15	5	32	20	800	2.2	4	60	SMA
P0300TA	25	5	40	50	800	2.2	4	75	SMA
P0640TA	58	5	77	150	800	2.2	4	50	SMA
P0720TA	65	5	87	120	800	2.2	4	50	SMA
P0900TA	75	5	98	120	800	2.2	4	50	SMA
P1100TA	90	5	130	120	800	2.2	4	45	SMA
P1300TA	120	5	160	120	800	2.2	4	45	SMA
P1500TA	140	5	180	120	800	2.2	4	45	SMA
P1800TA	170	5	220	120	800	2.2	4	45	SMA
P2300TA	190	5	260	120	800	2.2	4	35	SMA
P2600TA	220	5	300	120	800	2.2	4	35	SMA
P3100TA	275	5	350	120	800	2.2	4	35	SMA
P3500TA	320	5	400	120	800	2.2	4	35	SMA
P3800TA	340	5	450	120	800	2.2	4	35	SMA
P0060SA	6	5	25	50	800	2.2	4	25	SMB
P0080SA	6	5	25	50	800	2.2	4	25	SMB
P0220SA	15	5	25	50	800	2.2	4	25	SMB
P0300SA	25	5	40	50	800	2.2	4	15	SMB
P0640SA	58	5	77	150	800	2.2	4	40	SMB
P0720SA	65	5	88	150	800	2.2	4	35	SMB
P0900SA	75	5	98	150	800	2.2	4	35	SMB
P1100SA	90	5	130	150	800	2.2	4	30	SMB
P1300SA	120	5	160	150	800	2.2	4	25	SMB
P1500SA	140	5	180	150	800	2.2	4	25	SMB
P1800SA	170	5	220	150	800	2.2	4	25	SMB
P2300SA	190	5	260	150	800	2.2	4	25	SMB
P2600SA	220	5	300	150	800	2.2	4	20	SMB
P3100SA	275	5	350	150	800	2.2	4	20	SMB
P3500SA	320	5	400	150	800	2.2	4	20	SMB
P0060SB	6	5	15	50	800	2.2	4	25	SMB
P0080SB	6	5	25	50	800	2.2	4	25	SMB
P0220SB	15	5	32	50	800	2.2	4	25	SMB
P0300SB	25	5	40	50	800	2.2	4	15	SMB
P0640SB	58	5	77	150	800	2.2	4	40	SMB
P0720SB	65	5	88	150	800	2.2	4	35	SMB
P0900SB	75	5	98	150	800	2.2	4	35	SMB
P1100SB	90	5	130	150	800	2.2	4	30	SMB
P1300SB	120	5	160	150	800	2.2	4	25	SMB
P1500SB	140	5	180	150	800	2.2	4	25	SMB
P1800SB	170	5	220	150	800	2.2	4	25	SMB
P2300SB	190	5	260	150	800	2.2	4	25	SMB
P2600SB	220	5	300	150	800	2.2	4	20	SMB

Part Number	V <sub>drm</sub> (V)	I <sub>drm</sub> (μA)	V <sub>s</sub> (V)	I <sub>h</sub> (mA)	I <sub>s</sub> (mA)	I <sub>t</sub> (A)	V <sub>t</sub> (V)	C <sub>j</sub> (pF)	Package
P3100SB	275	5	350	150	800	2.2	4	20	SMB
P3500SB	320	5	400	150	800	2.2	4	20	SMB
P0080SC	6	5	25	50	800	2.2	4	25	SMB
P0060SC	6	5	15	50	800	2.2	4	45	SMB
P0080SC	6	5	25	50	800	2.2	4	45	SMB
P0220SC	15	5	32	50	800	2.2	4	30	SMB
P0300SC	25	5	40	50	800	2.2	4	25	SMB
P0640SC	58	5	77	150	800	2.2	4	55	SMB
P0720SC	65	5	88	150	800	2.2	4	50	SMB
P0900SC	75	5	98	150	800	2.2	4	45	SMB
P1100SC	90	5	130	150	800	2.2	4	45	SMB
P1300SC	120	5	160	150	800	2.2	4	40	SMB
P1500SC	140	5	180	150	800	2.2	4	35	SMB
P1800SC	170	5	220	150	800	2.2	4	35	SMB
P2000SC	180	5	220	150	800	2.2	4	35	SMB
P2300SC	190	5	260	150	800	2.2	4	30	SMB
P2600SC	220	5	300	150	800	2.2	4	30	SMB
P3100SC	275	5	350	150	800	2.2	4	30	SMB
P3500SC	320	5	400	150	800	2.2	4	25	SMB

Series	Surge I <sub>pp</sub>				
	2x10 μs	8x20 μs	10x160 μs	10x560 μs	10x1000 μs
	A	A	A	A	A
TA	150	150	70	60	50
SA	150	150	90	50	45
SB	250	250	150	100	80
SC	500	400	200	150	100

Type Number	Surge 10/700μs	V <sub>drm</sub> (V)	I <sub>drm</sub> (μA)	V <sub>gkrm</sub> (V)	I <sub>got</sub> (mA)	V <sub>gt</sub> @3A	V <sub>f</sub> @5A	I <sub>h</sub> (mA)	C <sub>j</sub> (pF)
LM61089Q	2KV	-170	-5	-167	5	2.5	3	-150	70
LM61089L	2KV	-170	-5	-167	5	2.5	3	-150	70
LM61089B	3KV	-170	-5	-167	5	2.5	3	-150	100
LM61089H	6KV	-170	-5	-167	5	2.5	3	-150	170

## LED灯珠开路保护元件

Part Number	V <sub>DRM</sub>	I <sub>DRM</sub>	V <sub>BR@IT</sub>	I <sub>s</sub>	Holding Current	I <sub>T</sub>	V <sub>T</sub>	Package
	Min(V)	Max(μA)	Max(V)	Max(mA)	(mA)	(mA)	Max(V)	
PLED06A	6	10	15	600	5	1	1.5	SMA
PLED09A	9	10	18	600	5	1	1.5	SMA
PLED12A	12	10	25	600	5	1	1.5	SMA
PLED18A	18	10	33	600	5	1	1.5	SMA
PLED36A	36	10	54	600	5	1	1.5	SMA
PLED06B	6	10	15	1000	5	1	1.5	SMB
PLED09B	9	10	18	1000	5	1	1.5	SMB
PLED12B	12	10	25	1000	5	1	1.5	SMB
PLED18B	18	10	33	1000	5	1	1.5	SMB
PLED36B	36	10	54	1000	5	1	1.5	SMB

# GDT 陶瓷气体放电管

## GDT 的简介

陶瓷气体放电管,简称 **GDT**,是防雷保护设备中应用最广泛的开关器件,浪涌电流大,可达 **1KA-150KA**,绝缘电阻极高,无漏流,无老化失效,无极性双向保护,静态电容极小,击穿电压分散性较大。多用在通讯线路、通讯配线架的保安单元及高频电路中作防雷保护。

## GDT 的选用技巧

1. GDT 的 DC Spark-over Voltage 应高出被保护电路 30%以上的最大直流或连续工作电压、电路的额定标准电压和“高端”容限。
2. GDT 的  $I_{pp}$  应大于电路瞬态浪涌电流。

## Information of GDT

The Gas Discharge Tube, referred as GDT, GDT's have two parallel electrodes in a low pressure inert gas cavity made of glass or ceramic. These devices are “DC” voltage rated at a rise time of 500 Volts per second. The spacing and size of electrodes determines the voltage and current ratings respectively. The GDT's  $I_{pp}$  rated at 1kA to 250kA@8/20 $\mu$ s. It has high insulation resistance, no leakage current, no aging failure, bidirectional protection, capacitance is extremely low, the breakdown voltage greater dispersion. These devices are largely used in the telecom sector for protecting subscriber stations and central office exchanges from primary lightning strikes.

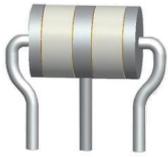
## The selection tips of GDT

1. The DC spark-over voltage of GDT should be more than 30% standard voltage and “high-end” tolerance, that protect the Max DC, continuous working voltage and circuits.
2. The  $I_{pp}$  of GDT should be more than the surge current of transient circuit.



Type Number	100V/s (V)	1kV/us (V)	10/1000 us 100A(S)	8/20us (KA)	50Hz, 1sec (A)	Test Voltage DC(V)	(GΩ)	Cj (pF)	package (MM)	
SMD3216-070N	70±30%	<600	50	1	0.5	25	0.1	0.5	3.2*1.6*1.6	
SMD3216-075N	75±30%	<500	50	1	0.5	25	0.1	0.5	3.2*1.6*1.6	
SMD3216-090N	90±30%	<500	50	1	0.5	50	0.1	0.5	3.2*1.6*1.6	
SMD3216-140N	140±30%	<600	50	1	0.5	50	0.1	0.5	3.2*1.6*1.6	
SMD3216-150N	150±30%	<600	50	1	0.5	50	0.1	0.5	3.2*1.6*1.6	
SMD3216-200N	200±20%	<600	50	1	0.5	100	0.1	0.5	3.2*1.6*1.6	
SMD3216-230N	230±20%	<600	50	1	0.5	100	0.1	0.5	3.2*1.6*1.6	
SMD3216-300N	300±20%	<600	50	1	0.5	100	0.1	0.5	3.2*1.6*1.6	
SMD3216-350N	350±30%	<800	50	1	0.5	100	0.1	0.5	3.2*1.6*1.6	
SMD3216-400N	400±20%	<800	50	1	0.5	100	0.1	0.5	3.2*1.6*1.6	
SMD3216-420N	420±20%	<900	50	1	0.5	100	0.1	0.5	3.2*1.6*1.6	
SMD3216-470N	470±20%	<900	50	1	0.5	100	0.1	0.5	3.2*1.6*1.6	
SMD3216-500N	500±20%	<900	50	1	0.5	100	0.1	0.5	3.2*1.6*1.6	
SMD3216-600N	600±20%	<900	50	1	0.5	100	0.1	0.5	3.2*1.6*1.6	
SMD4532-070NF	70±30%	<600	100	3	3	25	1	0.8	4.5*3.2*2.7	
SMD4532-075NF	75±30%	<600	100	3	3	25	1	0.8	4.5*3.2*2.7	
SMD4532-090NF	90±30%	<700	100	3	3	50	1	0.8	4.5*3.2*2.7	
SMD4532-150NF	150±20%	<750	100	3	3	50	1	0.8	4.5*3.2*2.7	
SMD4532-200NF	200±20%	<750	100	3	3	100	1	0.8	4.5*3.2*2.7	
SMD4532-230NF	230±20%	<750	100	3	3	100	1	0.8	4.5*3.2*2.7	
SMD4532-300NF	300±20%	<800	100	3	3	100	1	0.8	4.5*3.2*2.7	
SMD4532-350NF	350±30%	<900	100	3	3	100	1	0.8	4.5*3.2*2.7	
SMD4532-400NF	400±20%	<950	100	3	3	100	1	0.8	4.5*3.2*2.7	
SMD4532-470NF	470±20%	<1050	100	3	3	100	1	0.8	4.5*3.2*2.7	
SMD4532-600NF	600±20%	<1200	100	3	3	250	1	0.8	4.5*3.2*2.7	
SMD5050-075	75±20%	<600	300	5	5	52	1	1	5.0*5.0*4.2	
SMD5050-090	90±20%	<600	300	5	5	52	1	1	5.0*5.0*4.2	
SMD5050-150	150±20%	<600	300	5	5	52	1	1	5.0*5.0*4.2	
SMD5050-230	230±20%	<700	300	5	5	80	1	1	5.0*5.0*4.2	
SMD5050-250	250±20%	<700	300	5	5	150	1	1	5.0*5.0*4.2	
SMD5050-300	300±20%	<800	300	5	5	150	1	1	5.0*5.0*4.2	
SMD5050-350	350±20%	<800	300	5	5	150	1	1	5.0*5.0*4.2	
SMD5050-400	400±20%	<950	300	5	5	150	1	1	5.0*5.0*4.2	
SMD5050-470	470±20%	<1000	300	5	5	150	1	1	5.0*5.0*4.2	
SMD5050-600	600±20%	<1200	300	5	5	150	1	1	5.0*5.0*4.2	
SMD5050-800	800±20%	<1400	300	5	5	150	1	1	5.0*5.0*4.2	
SMD5050-1000	1000±20%	<1600	300	5	5	150	1	1	5.0*5.0*4.2	
2R075TA-5	75±20%	<600	300	5	5	25	1	1	5.5*6	
2R090TA-5	90±20%	<600	300	5	5	50	1	1	5.5*6	
2R150TA-5	150±20%	<600	300	5	5	50	1	1	5.5*6	
2R230TA-5	230±20%	<700	300	5	5	100	1	1	5.5*6	
2R250TA-5	250±20%	<700	300	5	5	100	1	1	5.5*6	
2R300TA-5	300±20%	<850	300	5	5	100	1	1	5.5*6	
2R350TA-5	350±20%	<900	300	5	5	100	1	1	5.5*6	
2R420TA-5	420±20%	<950	300	5	5	250	1	1	5.5*6	
2R470TA-5	470±20%	<1100	300	5	5	250	1	1	5.5*6	
2R600TA-5	600±20%	<1200	300	5	5	250	1	1	5.5*6	
2R800TA-5	800±20%	<1400	300	5	5	250	1	1	5.5*6	
2R1000T-5	1000±20%	<1800	100	4	3	500	1	1	5.5*6	

Type Number	100V/s (V)	1kV/us (V)	10/1000 us 100A(S)	8/20us (KA)	50Hz, 1sec (A)	Test Voltage DC(V)	(GΩ)	Cj (pF)	package (MM)	
2R1200T-5	1200±20%	<2000	100	4	3	500	1	1	5.5*6	
2R1500T-5	1500±20%	<2400	100	4	3	500	1	1	5.5*6	
2R1600T-5	1600±20%	<2600	100	3	3	500	1	1	5.5*6	
2R2000T-5	2000±20%	<3000	100	3	3	500	1	1	5.5*6	
2R2500T-5	2500±20%	<3500	100	3	3	500	1	1	5.5*6	
2R2700T-5	2700±20%	<3600	100	3	3	1000	1	1	5.5*6	
2R3000T-5	3000±20%	<4000	100	3	3	1000	1	1	5.5*6	
2R3500T-5	3500±20%	<4500	100	3	3	1000	1	1	5.5*6	
2R3600T-5	3600±20%	<4600	100	3	3	1000	1	1	5.5*6	
2R075TB-8	75±20%	<600	500	10	10	25	1	1.5	8*6	
2R090TB-8	90±20%	<600	500	10	10	50	1	1.5	8*6	
2R150TB-8	150±20%	<700	500	10	10	50	1	1.5	8*6	
2R230TB-8	230±20%	<800	500	10	10	100	1	1.5	8*6	
2R300TB-8	300±20%	<900	500	10	10	100	1	1.5	8*6	
2R350TB-8	350±20%	<1000	500	10	10	100	1	1.5	8*6	
2R400TB-8	400±20%	<1000	500	10	10	100	1	1.5	8*6	
2R420TB-8	420±20%	<1200	500	10	10	100	1	1.5	8*6	
2R470TB-8	470±20%	<1200	500	10	10	250	1	1.5	8*6	
2R600TB-8	600±20%	<1300	500	10	10	250	1	1.5	8*6	
2R800TB-8	800±20%	<1500	500	10	10	250	1	1.5	8*6	
2R1000T-8	1000±20%	<1500	300	5	5	1000	1	1.5	8*6	
2R1100T-8	1100±20%	<1700	300	5	5	1000	1	1.5	8*6	
2R1600T-8	1600±20%	<2000	300	5	5	1000	1	1.5	8*6	
2R2000T-8	2000±20%	<2300	300	5	5	1000	1	1.5	8*6	
2R2500T-8	2500±20%	<2700	300	5	5	1000	1	1.5	8*6	
2R2700T-8	2700±20%	<3500	300	3	3	1000	1	1.5	8*6	
2R3000T-8	3000±20%	<4000	300	3	3	1000	1	1.5	8*6	
2R3300T-8	3300±20%	<4200	300	3	3	1000	1	1.5	8*6	
2R3600T-8	3600±20%	<4700	300	3	3	1000	1	1.5	8*6	
2R4000T-8	4000±20%	<6000	300	3	3	1000	1	1.5	8*6	
2R4500T-8	4500±20%	<6500	300	3	3	1000	1	1.5	8*6	
2R5000T-8	5000±20%	<8000	300	3	3	1000	1	1.5	8*6	
2R6200T-8	6200±20%	<9500	300	3	3	1000	1	1.5	8*6	
2R6500T-8	6500±20%	<10000	300	3	3	1000	1	1.5	8*6	
2R7500T-8	7500±20%	<11000	300	3	3	1000	1	1.5	8*6	
3R075-5S	75±30%	<600	100	5	5	50	1	1	5*7.2	
3R090-5S	90±30%	<600	100	5	5	50	1	1	5*7.2	
3R150-5S	150±20%	<650	300	5	5	100	1	1	5*7.2	
3R230-5S	230±20%	<700	100	5	5	100	1	1	5*7.2	
3R350-5S	350±20%	<750	100	5	5	100	1	1	5*7.2	
3R420-5S	420±20%	<900	100	5	5	100	1	1	5*7.2	
3R470-5S	470±20%	<1000	100	5	5	100	1	1	5*7.2	
3R600-5S	600±20%	<1100	100	5	5	100	1	1	5*7.2	
3R075TA-6	75±20%	<750	300	5	5	25	1	2	6*8	
3R090TA-6	90±20%	<750	300	5	5	50	1	2	6*8	
3R150TA-6	150±20%	<800	300	5	5	100	1	2	6*8	
3R230TA-6	230±20%	<800	300	5	5	100	1	2	6*8	
3R300TA-6	300±20%	<800	300	5	5	100	1	2	6*8	
3R350TA-6	350±20%	<800	300	5	5	100	1	2	6*8	

Type Number	100V/s (V)	1kV/us (V)	10/1000 us 100A(S)	8/20us (KA)	50Hz, 1sec (A)	Test Voltage DC(V)	(GΩ)	Cj (pF)	package (MM)	
3R400TA-6	400±20%	<850	300	5	5	100	1	2	6*8	
3R420TA-6	420±20%	<850	300	5	5	250	1	2	6*8	
3R470TA-6	470±20%	<950	300	5	5	250	1	2	6*8	
3R600TA-6	600±20%	<1300	300	5	5	250	1	2	6*8	
3R075TB-6	75±20%	<750	300	10	10	25	1	2	6*8	
3R090TB-6	90±20%	<750	300	10	10	50	1	2	6*8	
3R150TB-6	150±20%	<800	300	10	10	100	1	2	6*8	
3R230TB-6	230±20%	<800	300	10	10	100	1	2	6*8	
3R300TB-6	300±20%	<800	300	10	10	100	1	2	6*8	
3R350TB-6	350±20%	<800	300	10	10	100	1	2	6*8	
3R400TB-6	400±20%	<850	300	10	10	100	1	2	6*8	
3R420TB-6	420±20%	<850	300	10	10	250	1	2	6*8	
3R470TB-6	470±20%	<950	300	10	10	250	1	2	6*8	
3R600TB-6	600±20%	<1300	300	10	10	250	1	2	6*8	
3R075TB-8	75±20%	<750	300	10	10	25	1	2	8.0*10	
3R090TB-8	90±20%	<750	300	10	10	50	1	2	8.0*10	
3R150TB-8	150±20%	<800	300	10	10	50	1	2	8.0*10	
3R230TB-8	230±20%	<800	300	10	10	100	1	2	8.0*10	
3R300TB-8	300±20%	<800	300	10	10	100	1	2	8.0*10	
3R350TB-8	350±20%	<800	300	10	10	100	1	2	8.0*10	
3R400TB-8	400±20%	<850	300	10	10	100	1	2	8.0*10	
3R420TB-8	420±20%	<850	300	10	10	250	1	2	8.0*10	
3R470TB-8	470±20%	<950	300	10	10	250	1	2	8.0*10	
3R600TB-8	600±20%	<1300	300	10	10	250	1	2	8.0*10	
3R075TD-8	75±20%	<750	300	20	20	25	1	2	8.0*10	
3R090TD-8	90±20%	<750	300	20	20	50	1	2	8.0*10	
3R150TD-8	150±20%	<800	300	20	20	50	1	2	8.0*10	
3R230TD-8	230±20%	<800	300	20	20	100	1	2	8.0*10	
3R300TD-8	300±20%	<800	300	20	20	100	1	2	8.0*10	
3R350TD-8	350±20%	<800	300	20	20	100	1	2	8.0*10	
3R400TD-8	400±20%	<850	300	20	20	100	1	2	8.0*10	
3R420TD-8	420±20%	<850	300	20	20	250	1	2	8.0*10	
3R470TD-8	470±20%	<950	300	20	20	250	1	2	8.0*10	
3R600TD-8	600±20%	<1300	300	20	20	250	1	2	8.0*10	

\* 2R代表二极GDT 3R代表三极GDT  
型号中带T字母为带引脚GDT

# MOSFET 场效应晶体管

## MOSFET 的简介

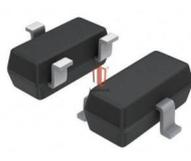
金属-氧化物半导体场效应晶体管，简称 **MOSFET**。是一种可以广泛使用在模拟电路与数字电路的场效应晶体管。MOSFET 依照其“通道”（工作载流子）的极性不同，可分为“N 型”与“P 型”的两种类型，通常又称为 N-MOSFET 与 P-MOSFET, MOSFET 广泛用于电路电子开关。

## MOSFET 的选用技巧

1. 选用 N 沟道还是 P 沟道，在低压侧开关中，应采用 N 沟道 MOSFET，这是出于对关闭或导通器件所需电压的考虑。当 MOSFET 连接到总线及负载接地时，就要用高压侧开关。通常是出于对电压驱动力的考虑；
2. 额定电压越大，器件的成本就越高， $V_{DS}$  必须覆盖电路额定工作电压范围并且注意温度曲线；
3. 确定额定电流，额定电流应是负载在所有情况下能够承受的最大电流；
4. 选好额定电流后，还必须计算导通损耗。MOSFET 在“导通”时就像一个可变电阻，由器件的  $R_{DS(ON)}$  所确定，并随温度而显著变化。器件功率耗损可由  $I_{load2} \times R_{DS(ON)}$  计算也会随之按比例变化。对 MOSFET 施加的电压  $V_{GS}$  越高， $R_{DS(ON)}$  就会越小；反之  $R_{DS(ON)}$  就会要折中权衡的地方。对便携式设计来说，采用较设计，可采用较高的电压。注意  $R_{DS(ON)}$  电阻会随着电流轻微上升；
5. 决定开关性能，是栅极/漏极、栅极/源极及漏极源极电容。这些电容会在器件中产生开关损耗，因为在每次开关时都要低，器件效率也下降。为计算开关过程中器件的总损耗，设计人员必须计算开通过程中的损耗( $E_{on}$ )和关闭过程中的损耗( $E_{off}$ )。



DFN1006-3



SOT-23



SOT-23-5



SOT-23-6



SOP-8



DFN2X2-6L



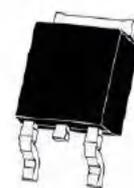
DFN3.3X3.3-8L



DFN5X6-8L



TO-220F



TO-252

PartNumbe	Package	N/P	Vdss Min(V) Drain-	Drain Current ID(A)25°C	Vgs(V) Gate- source	V <sub>TH</sub> Typ	Ron(10V) (mΩ)Typ	Ron(10V) (mΩ)Max	Ron(4.5V) (mΩ)Typ	Ron(4.5V) (mΩ)Max
LM1202	DFN1.2*1.2-3	N	20	0.8	10		-	-	190	250
LM1D06N03	DFN1006-3	N	30	0.6	12	0.8~1.5	-	-	320	500
LM2D12N02	DFN2020-6	N	20	12	10	0.35~2.5	-	-	10	15
LM2D5N03	DFN2020-6	N	30	5	10	0.6~1	32	42	35	44
LM2D10N03	DFN2020-6	N	30	10	20	1.0~2.5	9.4	12	12.8	16
LM2D10N06	DFN2020-6	N	60	10	20	1.2~2.5	24.5	35	30.5	40
LM2D10N10	DFN2020-6	N	100	10	20	1.2~2.5	110	140	160	300
LM2D01N06	DFN2020-6	N	60	0.115	20	1~2.5	1000	7000	90	112
LM3D20N02	DFN3.3X3.3-8	N	20	20	12	0.7	-	-	6.1	8
LM3D50N02	DFN3.3X3.3-8	N	20	50	10	0.4~1.1	6.3	8	8.8	13
LM3D10N03	DFN3.3X3.3-8	N	30	10	12	0.7~1.4	12	18	15	22
LM3D20N03	DFN3.3X3.3-8	N	30	20	20	1.5	7.6	9	11.5	15
LM3D30N03	DFN3.3X3.3-8	N	30	30	20	1.5	8.5	11	10.5	15
LM3D60N03	DFN3.3X3.3-8	N	30	60	20	1~2.5	7	8.5	10	13
LM3D65N03	DFN3.3X3.3-8	N	30	65	12	0.45~1	1.75	1.95	2	2.3
LM3D70N03	DFN3.3X3.3-8	N	30	70	20	1.6	3.5	5.5	6.5	8.5
LM3D80N03	DFN3.3X3.3-8	N	30	80	20	1.5	3.3	4	5.5	6.5
LM3D100N03	DFN3.3X3.3-8	N	30	100	20	1~2.5	3.5	4.7	6	10
LM3D20N04	DFN3.3X3.3-8	N	40	20	20	1.5	11	14	14.3	18.5
LM3D35N04	DFN3.3X3.3-8	N	40	35	20	1.3	5.4	7	6.8	9.5
LM3D65N04	DFN3.3X3.3-8	N	40	65	20	1.6	8	10	10	13
LM3D80N04	DFN3.3X3.3-8	N	40	80	20	1~2.5	5	7	7	9
LM3D25N06	DFN3.3X3.3-8	N	60	25	20	1~2.5	27	35	35	48
LM3D35N06	DFN3.3X3.3-8	N	60	35	20	1.0~2.5	7.5	10	10.5	16
LM3D40N06	DFN3.3X3.3-8	N	60	40	20	1~2.5	12	17	16	25
LM3D62N06	DFN3.3X3.3-8	N	60	62	20	1~2.5	5.8	7.5	7.3	10
LM3D70N06	DFN3.3X3.3-8	N	60	70	20	1~2.5	5.5	7.5	6.9	9.5
LM3D10N10	DFN3.3X3.3-8	N	100	10	20	1~3	93	100	96	110
LM3D40N10	DFN3.3X3.3-8	N	100	40	20	1.5	15	25	18	30
LM5D90N02	DFN5X6-8	N	20	90	12	0.68	1.6	2	1.9	2.5
LM5D120N02	DFN5X6-8	N	20	120	12	0.4~1	-	-	2.1	2.5
LM5D45N03	DFN5X6-8	N	30	45	20	1.5	5.8	6.4	8	10
LM5D120N03	DFN5X6-8	N	30	120	20	1.5	1.5	2.4	2.5	4.5
LM5D150N03	DFN5X6-8	N	30	150	20	1.6	1.4	2	2.3	3.2
LM5D60N04	DFN5X6-8	N	40	60	20	1.6	10.5	13.5	13.5	16.5
LM5D90N04	DFN5X6-8	N	40	90	20	1~2.5	3.2	4.5	4.4	6.6
LM5D120N04	DFN5X6-8	N	40	120	20	1.6	1.4	1.8	2	2.6
LM5D140N04	DFN5X6-8	N	40	140	20	1.7	1.6	2.2	2.3	3.5
LM5D160N04	DFN5X6-8	N	40	160	20	1.6	2	2	2	2
LM5D200N04	DFN5X6-8	N	40	200	20	1~3	0.86	1.1	-	-
LM5D30N06	DFN5X6-8	N	60	30	20	1~2.5	26	33	35	48
LM5D48N06	DFN5X6-8	N	60	48	20	1.8	6.2	8	7.8	10
LM5D80N06	DFN5X6-8	N	60	80	20	1.7	3.5	4.2	4.2	5.2
LM5D130N06	DFN5X6-8	N	60	130	20	1.0~2.5	2.5	3	3.5	4.5
LM5D100N08	DFN5X6-8	N	80	100	+20/-12	1.6	3.2	3.9	4.5	6
LM5D95N08	DFN5X6-8	N	85	90	20	3	4.5	5.2	-	-
LM5D40N10	DFN5X6-8	N	100	40	20	1.8	15	19	18	23
LM5D60N10	DFN5X6-8	N	100	60	20	1.8	9	12	12	14
LM5D80N10	DFN5X6-8	N	100	80	20	1.8	6.5	8	8.7	10.5
LM5D110N10	DFN5X6-8	N	100	110	20	1.8	4.2	6	6.6	9
LM5D140N10	DFN5X6-8	N	100	140	20	1.8	2.5	3	-	-
LM5D120N12	DFN5X6-8	N	120	120	20	3	6	6.8	-	-
LM5D25N15	DFN5X6-8	N	150	25	20	1.8	43	52	-	-
LM5D18N20	DFN5X6-8	N	200	18	20	3.5	70	80	-	-
LM8S12N03	SOP-8	N	30	12	20	1.6	8.5	12	13	18
LM4906	SOP-8	N	40	9	20	1.6	7	9	9.5	13
LM4012	SOP-8	N	40	12	20	1.6	8.4	12	12.3	18
LM8S8N06	SOP-8	N	60	8.2	20	1.5	14.5	22	17	34

PartNumbe	Package	N/P	Vdss Min(V) Drain-	Drain Current ID(A)25°C	Vgs(V) Gate- source	V <sub>TH</sub> Typ	Ron(10V) (mΩ)Typ	Ron(10V) (mΩ)Max	Ron(4.5V) (mΩ)Typ	Ron(4.5V) (mΩ)Max
LM8S12N06	SOP-8	N	60	12	20	1.7	8.2	9	10.5	13
LM8S20N06	SOP-8	N	60	20	20	1.5	7.5	10	10	13
LMS12N10A	SOP-8	N	100	12	20	3	14	17	-	-
LM8S15N10	SOP-8	N	100	15	20	1.5	90	112	95	120
LM8S40N10	SOP-8	N	100	40	20	1.5	19	25	24.4	30
LM8S20N15	SOP-8	N	150	4.5	20	1.8	43	60	60	70
LMTM5N15	SOT-223	N	150	5	20	1.6	260	320	300	380
LMTM024N40K	SOT-223	N	400	0.24	20	1.5~3.3	11	23	-	-
LMTL2N02	SOT-23	N	20	2.3	12	0.66	-	-	43	56
LM2302B	SOT-23	N	20	3	10	0.78	-	-	45	55
LM2300A	SOT-23	N	20	4.5	10	0.62	-	-	19.5	25
LM3416	SOT-23	N	20	7	12	0.6	-	-	13	18
LM4003	SOT-23	N	30	0.4	20	0.8~1.5	1500	2000	2000	3000
LM3402	SOT-23	N	30	3.5	12	0.6~2	35	40	40	60
LM3404B	SOT-23	N	30	4.2	20	1.5	29	38	45	65
LM2306A	SOT-23	N	30	5	12	0.8	25	30	30	35
LM3400	SOT-23	N	30	5.8	12	0.85	20	28	24	32
BSS138	SOT-23	N	50	0.34	20	1.2	1100	2500	1200	3000
2N7002	SOT-23	N	60	0.34	30	1.5	1200	2500	1300	3000
2N7002K	SOT-23	N	60	0.34	30	1.5	1200	2500	1300	3000
LM2308	SOT-23	N	60	2.6	20	1~3	-	100	-	130
LMTL3N06	SOT-23	N	60	3	20	1.2~2.5	80	100	85	110
BSS123	SOT-23	N	100	0.2	20	1.8	3000	5000	3500	5500
LMTL02N10	SOT-23	N	100	2	20	1.8	250	280	260	310
LMTL3N10	SOT-23	N	100	2.8	20	1.5	260	310	270	320
LM3L8N02	SOT-23-3	N	20	8	12	0.65	-	-	8.5	12
LM3L5N06	SOT-23-3	N	60	5.8	20	1.76	28	38	35	50
LM3L5N10	SOT-23-3	N	100	5	20	0.7~1.4	110	140	160	300
LM3L4N15	SOT-23-3	N	150	4	20	1.8	220	280	230	300
LM6L3N10A	SOT-23-6	N	100	3	20	1.8	95	120	100	140
LM6L4N10A	SOT-23-6	N	100	3.5	20	0.8~2	68	87	71	93
LM3134KW	SOT-323	N	20	0.75	12	0.75	-	-	130	250
LM2102W	SOT-323	N	20	2.5	10	0.78	-	-	57	70
LM23T20V06	SOT-323	N	20	0.6	12	0.5~0.85	-	-	300	350
2SK3018W	SOT-323	N	30	0.1	20	0.8~1.5	-	-	-	8000
LE3018	SOT-323	N	50	0.3	20	1~2.5	-	-	2300	4000
LM3T003N06	SOT-323	N	60	0.3	20	1~2.5	1600	3000	2000	4000
LM3T018N06	SOT-323	N	60	1.8	20	1~2.5	142	185	165	230
LM1012T	SOT-523	N	20	0.5	6	0.45~0.9	-	-	0.41	0.7
2N7002NT	SOT-523	N	30	0.15	20	0.6~1.5	2600	4000	6000	8000
LM3019	SOT-523	N	50	0.2	20	1	2000	3000	3000	4000
LMFB80N07	TO-220	N	70	80	25	3	7	8	-	-
LMFB140N08	TO-220	N	80	140	+20/-12	3	3.7	4.4	-	-
LMFB120N08	TO-220	N	85	120	20	3	4.5	5.2	-	-
LMFB60N10	TO-220	N	100	60	20	1.8	9	12	12	14
LMFB70N10	TO-220	N	100	70	20	1.6	8.5	10.5	11	15
LMFB120N12	TO-220	N	120	120	20	3	6.8	8.5	-	-
LMFB30N20	TO-220F	N	200	30	30	3	70	80	-	-
LMFB4N65	TO-220F	N	650	4	30	2~4	2000	2400	-	-
LMFB7N65	TO-220F	N	650	7	30	2~4	1000	12000	-	-
LMFB14N65	TO-220F	N	650	8	30	3.3	560	650	-	-
LMFB10N65	TO-220F	N	650	10	30	2~4	750	900	-	-
LMFB12N65	TO-220F	N	650	12	30	3.5	600	720	-	-
LMFB20N65	TO-220F	N	650	20	30	3	280	350	-	-
LMMP110N20	TO-247	N	200	110	-	-	9.3	10.5	-	-
LMMP83N60	TO-247	N	600	83	30	-	28	36	-	-
LMP15N60	TO-251	N	600	5	30	2.8~4.2	750	840	-	-
LMP14N70	TO-251	N	700	4	30	3~4	1100	1300	-	-

PartNumbe	Package	N/P	Vdss Min(V) Drain-	Drain Current ID(A)25°C	Vgs(V) Gate- source	V <sub>TH</sub> Typ	Ron(10V) (mΩ)Typ	Ron(10V) (mΩ)Max	Ron(4.5V) (mΩ)Typ	Ron(4.5V) (mΩ)Max
LMAK60N02	TO-252	N	20	60	12	0.7	-	-	4.1	5.5
LMAK11N03	TO-252	N	30	11	20	1.2~2.5	9	12	11	18
LMAK50N03	TO-252	N	30	50	20	1.5	6.5	9	8.6	11
LMAK80N03	TO-252	N	30	80	20	1.6	5	6	7	9
LMAK90N03	TO-252	N	30	90	20	1.5	4.1	5.8	5.7	8
LMAK110N03	TO-252	N	30	110	20	1.0~2.5	4	5.5	6	10
LMAK180N03	TO-252	N	30	180	20	1.6	2.1	3.2	3	3.8
LMAK80N04	TO-252	N	40	80	20	1.5	6	7.5	9	12
LMAK120N04	TO-252	N	40	120	20	1~2.5	2.8	3.5	4	4.8
LMAK10N06	TO-252	N	60	13	20	1.6	65	80	75	90
LMAK20N06	TO-252	N	60	20	20	1.5	34	43	36	47
LMAK28N06	TO-252	N	60	28	20	1.6	28	36	38	45
LMAK50N06	TO-252	N	60	50	20	1.6	9.9	12.0	12.6	16.0
LMAK130N06	TO-252	N	60	130	20	1.6	2.35	3.2	2.9	3.6
LMAK100N08	TO-252	N	80	100	20	3	5.5	6.8	-	-
LMAK12N10	TO-252	N	100	12	20	2	105	125	115	145
LMAK20N10	TO-252	N	100	19.3	20	1.85	65	85.0	75	100.0
LMAK25N10	TO-252	N	100	25	20	1.8	43	52	46	56
LMAK40N10	TO-252	N	100	40	20	1.5	13.8	20	17.4	26
LMAK110N10	TO-252	N	100	110	20	1~3	4	5	6.5	8.5
LMAK9N20	TO-252	N	200	9	20	2~4	250	300	-	-
LMAK18N20	TO-252	N	200	18	20	1.6	120	150	-	-
LMAK2N60	TO-252	N	600	2	30	2~4	3500	4500	-	-
LMAK4N65	TO-252	N	650	4	30	2~4	2000	2400	-	-
LMAK7N65	TO-252	N	650	7	30	2~4	1000	1200	-	-
LMFZ180N04	TO-263	N	40	180	20	-1.3~2.5	1.5	2	2.5	3
LMFZ200N04	TO-263	N	40	200	20	1.6	1.8	2.5	2	3
LMFZ30N06	TO-263	N	60	30	20	1~2.5	30	40	-	-
LMFZ120N08	TO-263	N	80	120	20	3	4.9	6	-	-
LMFZ130N10	TO-263	N	100	130	20	1~2.5	3.5	5	4.5	6
LMFZ150N10	TO-263	N	100	150	20	2.9	4.2	5.5	-	-
LMFZ7N60	TO-263	N	600	7.2	30	3	900	1100	-	-
LMFZ7N65	TO-263	N	650	7	30	3	1200	1400	-	-
LMSP25N50	TO-3P	N	500	25	-	-	0.17	0.22	-	-
LMSP20N65	TO-3P	N	650	20	-	-	0.38	0.5	-	-
LMSP09N90	TO-3P	N	900	9	-	-	0.97	1.15	-	-
LMTLG220N04	TOLL	N	40	220	20	3	1.4	2.3	1.9	3.5
LMTLG300N04	TOLL	N	40	300	20	1.6	0.95	1.3	1.5	2.3
LMTLG380N08	TOLL	N	80	380	20	3	1.1	1.4	1.6	2
LMTLG310N10	TOLL	N	100	310	20	2.8	1.3	1.8	1.8	2.5
LM1D02P06	DFN1006-3	P	-60	-0.2	20	-0.8~-2	3000	8000	-	-
LM1D3P02	DFN1006-3	P	-20	-2.8	12	-0.35~-1.1	-	-	70	90
LM1D06P02	DFN1006-3	P	-20	-0.56	10	-	-	-	610	850
LM1D06P03	DFN1006-3	P	-25	-0.6	12	-0.35~-1.1	-	-	430	560
LM2D16P01	DFN2020-6	P	-12	-16	10	-0.4~-1	-	-	11	18
LM2D9P01K	DFN2020-6	P	-12	-8.2	8	-1	-	-	14.6	18
LM8012P	DFN2020-6	P	-18	-8	-8	-0.4~-1	-	-	18.5	23
LM2D20P02	DFN2020-6	P	-20	-20	12	-0.6	-	-	12	18
LM2D16P02	DFN2020-6	P	-20	-16	10	-0.62	-	-	13	17
LM2D8P02	DFN2020-6	P	-20	-8	10	-0.4~-1	-	-	22	28
LM2D12P03	DFN2020-6	P	-30	-12	20	-1~-3	14	23	21.5	35
LM2D5P03	DFN2020-6	P	-30	-5	20	-1~-3	48	65	60	95
LM3D30P02	DFN3.3X3.3 -8	P	-20	-30	12	-0.6	-	-	16	20
LM3D40P03	DFN3.3X3.3 -8	P	-30	-40	20	-1.5	11	16	16	20
LM3D50P03	DFN3.3X3.3 -8	P	-30	-50	20	-1.4	8.8	13	14	20
LM3D30P03	DFN3.3X3.3 -8	P	-30	-30	25	-1.4	15.5	18	20.5	28
LM3D23P06	DFN3.3X3.3 -8	P	-60	-23	20	-2.1	30	40	41	55
LM5D90P02	DFN5X6-8	P	-20	-90	12	-0.4~-1.0	1.9	2.3	2.2	2.6

PartNumbe	Package	N/P	Vdss Min(V) Drain-	Drain Current ID(A)25°C	Vgs(V) Gate- source	V <sub>TH</sub> Typ	Ron(10V) (mΩ)Typ	Ron(10V) (mΩ)Max	Ron(4.5V) (mΩ)Typ	Ron(4.5V) (mΩ)Max
LM5D90P03	DFN5X6-8	P	-30	-90	20	-1.6	4.9	6.4	7.5	10.5
LM5D50P03	DFN5X6-8	P	-30	-50	25	-1.7	9	13	14	20
LM5D90P04	DFN5X6-8	P	-40	-90	20	-1~-2.5	4.3	5.5	5.9	7.6
LM5D70P06	DFN5X6-8	P	-60	-70	20	-1.5	7.6	8.6	9.2	12
LM5D50P10	DFN5X6-8	P	-100	-50	20	-1.0~-2.5	37	46	41	53
LM5D25P10	DFN5X6-8	P	-100	-25	20	-1.7	42	55	46	60
LM8S16P02	SOP-8	P	-20	-16	12	-0.6	-	-	14	20
LM8S13P02	SOP-8	P	-20	-13	10	-0.62	-	-	10	17
LM8S14P03	SOP-8	P	-30	-14	20	-1.2~2.5	-	8.7	-	13.5
LM8S10P03	SOP-8	P	-30	-10.5	20	-1.6	12	16	18	24
LM8S18P04	SOP-8	P	-40	-18	20	-1.6	5.6	6.7	7.3	8.8
LM8S15P04	SOP-8	P	-40	-15.8	20	-1.6	11	15	16	20
LM8S8P04	SOP-8	P	-40	-8	20	-1.7	16	21	21	31
LM8S8P06	SOP-8	P	-60	-8	20	-1.5	55	70	64	105
LMTM3P04	SOT-223	P	-40	-3	20	-1~-2	32	37	36	42
LMTM5P10	SOT-223	P	-100	-5	20	-1.0~-2.5	83	110	95	120
LMTL8P01	SOT-23	P	-12	-8.1	-12	-0.65	18	24	20	26
LMTL5P01	SOT-23	P	-12	-5.1	8	-0.6	-	-	26	35
LMTL5P02	SOT-23	P	-20	-14	12	-0.4~-1	-	-	32	38
LM2305B	SOT-23	P	-20	-5.4	10	-4.0~-1.0	-	-	32	40
LM3415A	SOT-23	P	-20	-4.2	8	-0.3~-1	-	-	37	43
LMTL4P02	SOT-23	P	-20	-4	8	-0.3~-1	-	-	-	60
LM2301C	SOT-23	P	-20	-3.4	10	-0.62	-	-	49	64
LMT3P02	SOT-23	P	-20	-2.8	8	-0.45~-0.9	-	-	80	110
LMT2P02	SOT-23	P	-20	-2.4	8	-0.4~-0.5	-	-	-	140
LM2006K	SOT-23	P	-20	-0.66	10	-0.65	-	-	-	1200
LM3139	SOT-23	P	-20	-0.35	6	-0.45	-	-	800	1200
LM3401A	SOT-23	P	-30	-4.2	12	-0.6~-2	42	50	53	60
LM3407A	SOT-23	P	-30	-4.1	20	-1.5	46	60	58	75
LM2307	SOT-23	P	-30	-3	20	-1~-3	58	70	75	95
LMTL4P03	SOT-23	P	-40	-3.7	20	-1.5	62	75	81	100
LM4375	SOT-23	P	-40	-3	20	-1~-3	75	80	115	120
LM2309	SOT-23	P	-60	-1.6	20	-1~-3	200	250	240	300
BSS84	SOT-23	P	-60	-0.17	20	-1.4	-	8000	-	10000
LMTL1P10	SOT-23	P	-100	-0.9	20	-1.5	520	650	560	700
LMTL02P35K	SOT-23	P	-350	-0.2	20	-0.5~-1.2	18	30	-	-
LM3L11P01	SOT-23-3	P	-12	-11	8	-0.5~-1.2	-	-	14	25
LM3L7P02	SOT-23-3	P	-20	-7	12	-0.7	-	-	20	25
LM3L5P04	SOT-23-3	P	-40	-5	20	-1.5	65	70	85	100
LM3L3P06	SOT-23-3	P	-60	-3.8	20	-1.7	125	150	158	200
LM3L4P02	SOT-23-6	P	-20	-4	8	-0.3~-1	-	-	37	50
LM3L6P03	SOT-23-6	P	-30	-6	20	-1	25	30	35	45
LM3T2P02	SOT-323	P	-20	-2	8	-0.45~-1	-	-	12	160
LMSS84W	SOT-323	P	-50	-0.13	20	0.8~2	-	-	5000	10000
LM1013T	SOT-523	P	-20	-0.35	6	-0.45	-	-	800	1200
LMAK60P02	TO-252	P	-20	-60	12	-0.35~-1	6.6	8.5	8	12
LMAK120P03	TO-252	P	-30	-120	20	-1.6	3.8	5.5	5.8	8.2
LMAK99P04	TO-252	P	-40	-99	20	-1.0~-2.5	4.9	6	6.5	8.3
LMAK63P04	TO-252	P	-40	-63	20	-1.0~-2.5	6.4	8.2	8.2	11
LMAK40P04	TO-252	P	-40	-40	20	-1.9	12	14	18.5	24
LMAK20P04	TO-252	P	-40	-20	20	-1.6	37	45	57	65
LMAK7P04	TO-252	P	-40	-7	20	-1.3	18	25	30	45
LMAK50P04	TO-252	P	-40	-50	20	-1.6	10.5	13.0	15	20.0
LMAK85P06	TO-252	P	-60	-85	20	-1.2~-2.5	8.5	11	10.5	13
LMAK60P06	TO-252	P	-60	-60	20	-1~-3	12	25	-	-
LMAK40P06	TO-252	P	-60	-40	20	-1.0~-2.5	24	29	30.4	39
LMAK26P06	TO-252	P	-60	-26	20	-1.8	31	40.0	42	55.0
LMAK12P06	TO-252	P	-60	-12	20	-1~-3	75	96	90	150

PartNumbe	Package	N/P	Vdss Min(V) Drain-	Drain Current ID(A)25°C	Vgs(V) Gate- source	V <sub>TH</sub> Typ	Ron(10V) (mΩ)Typ	Ron(10V) (mΩ)Max	Ron(4.5V) (mΩ)Typ	Ron(4.5V) (mΩ)Max
LMAK15P06	TO-252	P	-60	-18.8	20	-1.5	53	70	65	105
LMAK13P06	TO-252	P	-60	-13.5	20	-1.75	80	90	100	115
LMAK30P06	TO-252	P	-60	-30	20	-1.5	21	25	26	33
LMAK40P10	TO-252	P	-100	-40	20	-1~3	40	52	44	60
LMAK30P10	TO-252	P	-100	-30	30	-1~3	36	45	39	55
LMAK15P10	TO-252	P	-100	-15	20	-1.2~2.5	145	185	170	200
LMAK18P10	TO-252	P	-100	-18	20	-1.7	68	95	78	110
LMAK50P10	TO-252	P	-100	-50	20	-1.6	40	52	44	62
LMAK18P15	TO-252	P	-150	-18	20	-1.5~3	150	185	170	230
LMAK8P20	TO-252	P	-200	-8	30	-4~-2	400	750	-	-
LMAK13P20	TO-252	P	-200	-13	20	-3	340	420	-	-
LMCSP3ND02	CSP1.1X1.1	N+N	20	3	8	0.6	-	-	18	-
LMCSP9ND01	CSP2.14X1.4	N+N	12	9	8	0.6	-	-	4.5	-
LM4D8809	DFN2X3-6	N+N	20	9.5	12	0.45~1.5	-	-	7.8	9
LM2D7ND03	DFN2020-6	N+N	30	7.7	12	0.9	21	27	25	33
LM2D3ND02	DFN2020-6	N+N	20	3	8	0.65~1.2	-	-	35	60
LM3D6ND02K	DFN3.3X3.3-8	N+N	20	6.5	8	0.6	-	-	18	22
LM3D35ND03	DFN3.3X3.3-8	N+N	30	35	20	1~2.5	10	12	16	18
LM3D7ND03	DFN3.3X3.3-8	N+N	30	7	20	1.6	15.5	18.5	26.5	30
LM5D25ND10	DFN5X6-8	N+N	100	25	20	1.0~2.4	20	24	25	30
LM9926	SOP-8	N+N	20	6.5	12	0.7	-	-	20	28
LM8S8ND03	SOP-8	N+N	30	8.5	20	1.5	21	23	27	32
LM8S10ND03	SOP-8	N+N	30	10	20	1.6	9	12	14	18
LM8S6ND03	SOP-8	N+N	30	7.8	20	1.6	15	22	20	30
LM4946	SOP-8	N+N	60	4.5	20	2	-	-	38	45
LM8S6ND06	SOP-8	N+N	60	6	20	1.6	26	35	32	45
LM8S10ND06	SOP-8	N+N	60	10	20	1.5	15.6	20	20	28
LM6L4ND02	SOT-23-6	N+N	20	4	10	0.62	-	-	19.5	25.35
LM6L7ND02	SOT-23-6	N+N	20	7	12	0.4~1	13.5	20	14.5	22
LM6T07ND02	SOT-363	N+N	20	0.75	12	0.35~1.1	-	-	270	380
LM6T09ND02K	SOT-363	N+N	20	0.63/0.91	12	0.92	-	-	290	375
LM4001N	SOT-363	N+N	30	0.25	20	1.1	1500	2000	2000	3000
LM3134KM6	SOT-563	N+N	20	0.75	12	0.35~1.1	-	-	270	380
LM2D3PD02	DFN2020-6	P+P	-20	-3	8	-0.7	-	-	70	120
LM2D6PD02	DFN2020-6	P+P	-20	-6	8	-0.4~1	-	-	36	50
LM5D50PD02	DFN5X6-8	P+P	-20	-50	10	-0.4~1	6.5	8.5	8.5	12
LM8S8PD04	SOP-8	P+P	-40	-8.2	20	-1.6	35	40	48	65
LM4953	SOP-8	P+P	-30	-7	20	-1.6	37	48	58	65
BSS84AKV	SOT-563	P+P	-50	-0.17	20	-0.9~2	4500	8000	-	-
LM3139KT	SOT-563	P+P	-20	-0.66	12	-0.35~-1.1	-	-	450	520
LM2D5PN01	DFN2020-6	N+P	12/12	5.6@N -3.8@	8	0.4~1/ 0.4~1	-	-	17/37	29/61
LM5D25PN02	DFN5X6-8	N+P	20/20	32@N -26.8@	20	0.65/-0.7	-	-	7.7/16.8	10/20
LM5D15PN03	DFN5X6-8	N+P	30/30	18@N -15@P	20	1.6/-1~-2.5	15/25	22/32	20/37	30/54
LM5D20PN03	DFN5X6-8	N+P	30/30	28@N -19.7@	20	1.6/-1.6	8.5/20	12/25	11/28	16/38
LM8S6NP03	SOP-8	N+P	30/30	6@N -6@P	20	1.5/-1.5	18.5/35.2	22/42	30.3/42.6	37/50
LM6604	SOT-23-6	N+P	20/20	2.8@N -2.8@	12	0.75/-0.7	-	-	47/70	65/96
LMSC05N02A	SOT-23-6	N+P	20/20	5.6@N -3.7@	10	0.62/-0.62	-	-	19.5/49	25/64
LM3439	SOT-363	N+P	20/20	0.75@N -0.66@	12	0.35~1.1/ 0.35~-1.1	-	-	260/460	400/700

# PPTC 自恢复保险丝

## PPTC 的简介

自恢复保险丝，简称 PPTC。是一种正温度系数聚合物热敏电阻，作过流保护用，可代替电流保险丝。电路正常工作时它的阻值很小（压降很小），当电路出现过流使它温度升高时，阻值急剧增大几个数量级，使电路中的电流减小到安全值以下，从而使后面的电路得到保护，过流消失后自动恢复为低阻值。其效果与开关组件类似，只是响应速度较慢。

## PPTC 的选用技巧

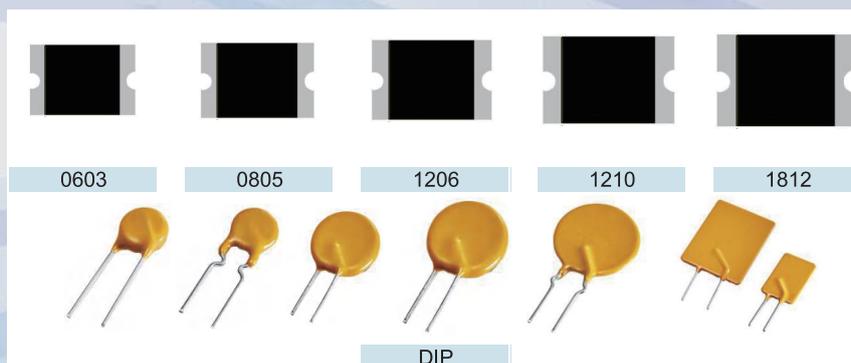
1. 确定以下的电路运行参数：
  - 正常工作电流 -  $I_{HOLD}$
  - 电路电压最大值 -  $V_{MAX}$
  - 最大中断电流 -  $I_{MAX}$
  - 工作环境温度
2. 选择合适的封装形式：贴片 PTC 或者插件 PTC。
3. 比较的  $V_{MAX}$  和  $I_{MAX}$  的 PTC 数据表中的评级，以确保电路参数不超过这些额定值。
4. 验证 PTC 的运行环境温度为其的正常工作范围内。确定  $I_{hold}$  和  $I_{MAX}$  的温度曲线。

## Information of PPTC

Polymer positive temperature coefficient is referred PPTC. For over-current protector, can palce circuit element. The PPTC element protects the circuit by changing from a low-resistance to a high resistance state in response to an over current.

## The selection tips of PPTC/FUSE

1. Determine the following circuit operating parameters:
  - Normal operating current –  $I_{HOLD}$
  - Maximum circuit voltage –  $V_{MAX}$
  - Maximum interrupt current –  $I_{MAX}$
  - Ambient operating temperature
2. Select the suitable package SMD or DIP.
3. Compare the PTC data sheet ratings for  $V_{MAX}$  and  $I_{MAX}$  to ensure that the circuit parameters do not exceed these ratings.
4. Verify that the ambient operating temperature within close proximity to the device is within its normal operating range. Thermally derate  $I_{HOLD}$  and  $I_{MAX}$  as necessary.



Part Number	Ih(A)	It(A)	Vmax (Vdc)	Imax (A)	Trip current (A)	Trip time(s)	Rmax (Ω)	Rmin (Ω)	Pd typ(W)	Package
SMD0603P003TF	0.03	0.09	30	20	0.15	1	65	6	0.5	0603
SMD0603P004TF	0.04	0.12	24	20	0.2	1	45	4	0.5	0603
SMD0603P005TF	0.05	0.15	24	20	0.25	1	35	3	0.5	0603
SMD0603P010TF	0.1	0.3	15	40	0.5	1	8	0.9	0.5	0603
SMD0603P020TF	0.2	0.5	9	40	1	0.6	3.5	0.55	0.5	0603
SMD0603P025TF	0.25	0.55	9	40	8	0.08	3	0.5	0.5	0603
SMD0603P030TF	0.3	0.7	6	40	8	0.1	2	0.3	0.5	0603
SMD0603P035TF	0.35	0.75	6	40	8	0.1	1.4	0.2	0.5	0603
SMD0603P040TF	0.4	0.8	6	40	8	0.1	0.9	0.2	0.5	0603
SMD0603P050TF	0.5	1	6	40	8	0.1	0.8	0.1	0.5	0603
SMD0603P050TF/12	0.5	1	12	40	8	0.1	0.8	0.1	0.5	0603
SMD0603P035L	0.35	0.7	6	50	0.7	0.1	0.15	1	0.5	0603
SMD0603P050L	0.5	1	6	50	1	0.6	0.07	0.4	0.5	0603
SMD0603P075L	0.75	1.5	6	50	1.5	1	0.055	0.25	0.5	0603
SMD0603P100L	1	2	6	50	2	2	0.045	0.12	0.5	0603
SMD0603P125L	1.25	2.5	6	50	2.5	3	0.1	0.035	0.5	0603
SMD0603P150L	1.5	3	6	50	3	4	0.08	0.025	0.5	0603
SMD0603P175L	1.75	3.5	6	50	3.5	5	0.07	0.015	0.5	0603
SMD0603P200L	2	4	6	50	4	5	0.06	0.012	0.5	0603
SMD0603P260L	2.6	5.2	6	50	5.2	5	0.05	0.008	0.5	0603
SMD0603P300L	3	6	6	50	6	5	0.04	0.008	0.5	0603
SMD0805P005TF	0.05	0.15	24	100	0.5	1.5	20	1.5	0.5	0805
SMD0805P010TF	0.1	0.3	15	100	0.5	1.5	6	1	0.5	0805
SMD0805P010TF/24	0.05	0.15	24	40	0.5	1.5	6	6	0.5	0805
SMD0805P020TF	0.2	0.5	9	100	8	0.02	3.5	0.5	0.5	0805
SMD0805P020TF/30	0.2	0.5	30	100	8	0.02	4.5	0.5	0.5	0805
SMD0805P025TF	0.25	0.5	6	100	8	0.02	3.2	0.45	0.5	0805
SMD0805P030TF	0.3	0.7	6	100	8	0.1	2	0.25	0.5	0805
SMD0805P035TF	0.35	0.75	6	100	8	0.1	1.2	0.25	0.5	0805
SMD0805P050TF	0.5	1	6	100	8	0.1	0.85	0.15	0.6	0805
SMD0805P075TF	0.75	1.5	6	100	8	0.2	0.385	0.09	0.6	0805
SMD0805P100TF	1	1.95	6	100	8	0.3	0.23	0.06	0.6	0805
SMD0805P110TF	1.1	2.2	6	100	8	0.3	0.21	0.06	0.6	0805
SMD1206P005TF	0.05	0.15	60	100	0.25	1.5	50	3.6	0.4	1206
SMD1206P010TF	0.1	0.25	60	100	0.5	1	15	1.6	0.4	1206
SMD1206P010TF/33	0.1	0.25	33	100	0.5	1	15	1.6	0.4	1206
SMD1206P012TF	0.12	0.29	30	100	0.5	0.2	15	1.35	0.4	1206
SMD1206P016TF	0.16	0.37	30	100	1	0.3	2.5	1.2	0.6	1206
SMD1206P020TF	0.2	0.46	24	100	1	0.08	2.5	0.35	0.6	1206
SMD1206P020TF/30	0.2	0.4	30	100	8	0.08	2.5	0.6	0.4	1206
SMD1206P025TF	0.25	0.5	16	100	8	0.1	1.3	0.35	0.6	1206
SMD1206P030TF	0.3	0.65	16	100	8	0.1	2	0.25	0.6	1206
SMD1206P035TF	0.35	0.75	16	100	8	0.1	0.7	0.25	0.6	1206
SMD1206P050TF	0.5	1	6	100	8	0.1	0.7	0.15	0.6	1206
SMD1206P050TF/13.2	0.5	1	13.2	100	8	0.1	0.7	0.15	0.6	1206
SMD1206P050TF/16	0.5	1	16	100	8	0.1	0.75	0.15	0.4	1206

Part Number	Ih(A)	It(A)	Vmax (Vdc)	Imax (A)	Trip current (A)	Trip time(s)	Rmax (Ω)	Rmin (Ω)	Pd typ(W)	Package
SMD1206P050TF/24	0.5	1	24	100	8	0.1	0.15	0.15	0.4	1206
SMD1206P050TF/30	0.5	1	30	100	8	0.1	1	0.15	0.4	1206
SMD1206P075TF	0.75	1.5	6	100	8	0.2	0.5	0.09	0.6	1206
SMD1206P075TF/13.2	0.75	1.5	13.2	100	8	0.2	0.5	0.09	0.6	1206
SMD1206P075TF/16	0.75	1.5	16	100	8	0.2	0.5	0.09	0.6	1206
SMD1206P100TF	1	1.8	6	100	8	0.3	0.27	0.055	0.6	1206
SMD1206P100TF/13.2	1	1.8	13.2	100	8	0.3	0.27	0.055	0.6	1206
SMD1206P100TF/16	1	1.8	16	100	8	0.3	0.18	0.055	0.8	1206
SMD1206P110TF	1.1	1.8	8	100	8	0.3	0.21	0.05	0.6	1206
SMD1206P150TF	1.5	3	6	100	8	1	0.13	0.04	0.8	1206
SMD1206P200TF	2	3.5	6	100	8	1	0.08	0.018	0.8	1206
SMD1210P005TF	0.05	0.15	60	100	0.25	1.5	50	2.8	0.6	1210
SMD1210P010TF	0.1	0.3	30	100	0.5	0.6	15	0.8	0.6	1210
SMD1210P020TF	0.2	0.4	30	100	8	0.02	5	0.4	0.6	1210
SMD1210P035TF	0.35	0.75	30	100	8	0.2	1.3	0.2	0.6	1210
SMD1210P035TF/16	0.35	0.75	16	100	8	0.2	1.3	0.2	0.6	1210
SMD1210P050TF	0.5	1	16	100	8	0.1	0.9	0.18	0.6	1210
SMD1210P075TF	0.75	1.5	6	100	8	0.1	0.4	0.07	0.6	1210
SMD1210P075TF/24	0.75	1.5	24	100	8	0.1	0.45	0.07	0.6	1210
SMD1210P110TF	1.1	2.2	6	100	8	0.3	0.21	0.05	0.6	1210
SMD1210P110TF/12	1.1	2.2	12	100	8	0.3	0.25	0.05	0.8	1210
SMD1210P110TF/16	1.1	2.2	16	100	8	0.3	0.25	0.05	0.8	1210
SMD1210P150TF	1.5	3	6	100	8	0.5	0.11	0.3	0.6	1210
SMD1210P175TF	1.75	3.5	6	100	8	0.6	0.08	0.02	0.8	1210
SMD1210P200TF	2	4	6	100	8	1	0.07	0.015	0.8	1210
SMD1812P010TF	0.1	0.3	30	100	0.5	1.5	15	0.75	0.8	1812
SMD1812P010TF/60	0.1	0.3	60	100	0.5	1.5	15	0.75	0.8	1812
SMD1812P014TF	0.14	0.34	60	100	1.5	0.15	6	0.65	0.8	1812
SMD1812P020TF	0.2	0.4	30	100	8	0.02	5	0.35	0.8	1812
SMD1812P030TF	0.3	0.6	30	100	8	0.1	3	0.25	0.8	1812
SMD1812P050TF	0.5	1	15	100	8	0.15	1	0.15	0.8	1812
SMD1812P050TF/24	0.5	1	24	100	8	0.15	1	0.15	0.8	1812
SMD1812P050TF/30	0.5	1	30	100	8	0.15	1	0.15	0.8	1812
SMD1812P075TF	0.75	1.5	13.2	100	8	0.2	0.45	0.09	0.8	1812
SMD1812P075TF/24	0.75	1.5	24	100	8	0.2	0.45	0.09	0.8	1812
SMD1812P075TF/33	0.75	1.5	33	100	8	0.2	0.45	0.09	0.8	1812
SMD1812P110TF	1.1	2.2	8	100	8	0.3	0.25	0.05	0.8	1812
SMD1812P110TF/16	1.1	2.2	16	100	8	0.3	0.25	0.05	0.8	1812
SMD1812P110TF/24	1.1	2.2	24	100	8	0.3	0.25	0.05	0.8	1812
SMD1812P110TF/33	1.1	2.2	33	100	8	0.3	0.25	0.05	0.8	1812
SMD1812P125TF	1.25	2.5	8	100	8	0.4	0.2	0.05	0.8	1812
SMD1812P125TF/16	1.25	2.5	16	100	8	0.4	0.2	0.05	0.8	1812
SMD1812P150TF	1.5	3	8	100	8	0.5	0.16	0.04	0.8	1812
SMD1812P150TF/16	1.5	3	16	100	8	0.5	0.16	0.04	0.8	1812
SMD1812P150TF/24	1.5	3	24	100	8	0.5	0.16	0.04	0.8	1812

Part Number	Ih(A)	It(A)	Vmax (Vdc)	Imax (A)	Trip current (A)	Trip time(s)	Rmax (Ω)	Rmin (Ω)	Pd typ(W)	Package
SMD1812P160TF	1.6	2.8	8	100	8	1	0.13	0.03	0.8	1812
SMD1812P200TF	2	4	8	100	8	2	0.1	0.02	0.8	1812
SMD1812P200TF/12	2	4	12	100	8	2	0.1	0.02	0.8	1812
SMD1812P200TF/16	2	3.5	16	100	8	2	0.1	0.02	1	1812
SMD1812P260TF	2.6	5	8	100	8	2.5	0.05	0.015	0.8	1812
SMD1812P260TF/12	2.6	5	12	100	8	2.5	0.06	0.015	0.8	1812
SMD1812P260TF/16	2.6	5	16	100	8	2.5	0.06	0.015	0.8	1812
SMD1812P300TF	3	5	8	100	8	4	0.04	0.012	2	1812
SMD2018P030TF	0.3	0.6	60	100	1.5	3	2.3	0.5	0.9	2018
SMD2018P050TF	0.55	1.2	60	100	2.5	3	1	0.2	1	2018
SMD2018P100TF	1.1	2.2	15	100	8	0.4	0.36	0.06	1.1	2018
SMD2018P100TF/33	1.1	2.2	33	100	8	0.4	0.36	0.06	1.1	2018
SMD2018P150TF	1.5	3	15	100	8	0.8	0.17	0.05	1.1	2018
SMD2018P200TF	2	4.2	10	100	8	2.4	0.1	0.03	1.1	2018
SMD2920P030TF	0.3	0.6	60	100	1.5	3	4.8	0.6	1.5	2920
SMD2920P050TF	0.5	1	60	100	2.5	4	1.4	0.18	1.5	2920
SMD2920P075TF	0.75	1.5	33	100	8	0.3	1	0.1	1.5	2920
SMD2920P075TF/60	0.75	1.5	60	100	8	0.3	1	0.1	1.5	2920
SMD2920P100TF	1	2.2	33	100	8	0.5	0.41	0.065	1.5	2920
SMD2920P100TF/60	1	2	60	100	8	0.5	0.41	0.09	1.5	2920
SMD2920P125TF	1.25	2.5	33	100	8	2	0.25	0.05	1.5	2920
SMD2920P150TF	1.5	3	33	100	8	2	0.23	0.035	1.5	2920
SMD2920P185TF	1.85	3.7	33	100	8	2.5	0.15	0.03	1.5	2920
SMD2920P200TF	2	4	16	100	8	4.5	0.12	0.02	1.5	2920
SMD2920P200TF/24	2	4	24	100	8	4.5	0.12	0.02	1.5	2920
SMD2920P250TF	2.5	5	16	100	8	16	0.085	0.02	1.5	2920
SMD2920P260TF	2.6	5.2	16	100	8	10	0.075	0.014	1.5	2920
SMD2920P300TF/6	3	6	6	40	8	20	0.048	0.012	1.5	2920
SMD2920P300TF/16	3	6	16	100	8	20	0.048	0.012	1.5	2920
SMD2920P300TF/24	3	6	24	40	8	35	0.048	0.015	1.9	2920
HL06-075	0.75	1.3	6	40	8	0.4	0.345	0.14	0.3	DIP
HL06-090	0.9	1.8	6	40	8	1.2	0.27	0.1	0.6	DIP
HL06-110	1.1	2.2	6	40	8	2.3	0.21	0.08	0.7	DIP
HL06-120	1.2	2	6	40	8	3.5	0.21	0.08	0.6	DIP
HL06-135	1.35	2.7	6	40	8	4.5	0.18	0.06	0.81	DIP
HL06-160	1.6	3.2	6	40	8	9	0.165	0.05	0.9	DIP
HL06-185	1.85	3.7	6	40	8	10	0.135	0.05	1	DIP
HL06-250	2.5	5	6	40	8	40	0.09	0.03	1.21	DIP
HL16-010	0.1	0.3	16	100	0.5	5	7.5	1.5	0.38	DIP
HL16-025	0.25	0.5	16	100	1.25	5	1.95	0.5	0.45	DIP
HL16-030	3	0.6	16	100	1.5	5	0.7	0.3	0.49	DIP
HL16-050	0.5	1	16	100	2.5	5	0.5	0.2	0.56	DIP
HL16-075	0.75	1.5	16	100	3.75	5	0.32	0.1	0.72	DIP
HL16-090	0.9	1.8	16	100	4.5	5	0.18	0.09	0.83	DIP
HL16-110	1.1	2.2	16	100	5.5	5	0.15	0.06	0.94	DIP
HL16-135	1.35	2.7	16	100	6.75	5	0.13	0.04	1.2	DIP

Part Number	Ih(A)	It(A)	Vmax (Vdc)	Imax (A)	Trip current (A)	Trip time(s)	Rmax ( $\Omega$ )	Rmin ( $\Omega$ )	Pd typ(W)	Package
HL16-160	1.6	3.2	16	100	8	5	0.11	0.04	1.4	DIP
HL16-200	2	4	16	100	6	15	0.075	0.035	2.2	DIP
HL16-300	3	6	16	100	9	15	0.06	0.02	2.3	DIP
HL16-400	4	8	16	100	12	15	0.04	0.02	2.4	DIP
HL16-500	5	10	16	100	15	15	0.025	0.014	2.6	DIP
HL16-600	6	12	16	100	18	15	0.021	0.01	2.8	DIP
HL16-700	7	14	16	100	21	15	0.015	0.008	3	DIP
HL16-800	8	16	16	100	24	15	0.013	0.06	3	DIP
HL16-900	9	18	16	100	27	15	0.012	0.004	3.3	DIP
HL16-1000	10	20	16	100	30	30	0.011	0.004	3.7	DIP
HL16-1100	11	22	16	100	33	30	0.009	0.003	3.7	DIP
HL16-1200	12	24	16	100	36	30	0.008	0.003	4.2	DIP
HL16-1300	13	26	16	100	39	50	0.008	0.003	4.2	DIP
HL16-1400	14	28	16	100	40	50	0.007	0.0026	4.2	DIP
HL30-050	0.5	1	30	40	2.5	5	0.6	0.25	0.5	DIP
HL30-075	0.75	1.5	30	40	3.75	5	0.37	0.2	0.6	DIP
HL30-090	0.9	1.8	30	40	4.5	8	0.22	0.1	0.7	DIP
HL30-110	1.1	2.2	30	40	5.5	8	0.2	0.07	0.7	DIP
HL30-120	1.2	2.4	30	40	6	8	0.18	0.08	0.8	DIP
HL30-135	1.35	2.7	30	40	6.75	8	0.16	0.07	0.8	DIP
HL30-160	1.6	3.2	30	40	8	8	0.14	0.06	0.9	DIP
HL30-185	1.85	3.7	30	40	9.25	8	0.12	0.05	1	DIP
HL30-200	2	4	30	40	10	11	0.1	0.04	1.2	DIP
HL30-250	2.5	5	30	40	12.5	11	0.08	0.03	1.2	DIP
HL30-300	3	6	30	40	15	11	0.07	0.03	2	DIP
HL30-400	4	8	30	40	20	12.7	0.06	0.01	2.5	DIP
HL30-500	5	10	30	40	25	14.5	0.05	0.01	3	DIP
HL30-600	6	12	30	40	30	16	0.04	0.005	3.5	DIP
HL30-700	7	14	30	40	35	17.5	0.03	0.005	3.8	DIP
HL30-800	8	16	30	40	40	18.8	0.02	0.005	4	DIP
HL30-900	9	18	30	40	40	20	0.01	0.005	4.2	DIP
HL60-005	0.05	0.15	60	40	0.25	8	20	7.3	0.26	DIP
HL60-010	0.1	0.3	60	40	0.5	5	7.5	2.5	0.38	DIP
HL60-017	0.17	0.34	60	40	0.85	5	5.21	2	0.48	DIP
HL60-020	0.2	0.4	60	40	1	5	2.84	1.5	0.41	DIP
HL60-025	0.25	0.5	60	40	1.25	5	1.95	1	0.45	DIP
HL60-030	0.3	0.6	60	40	1.5	5	1.38	0.76	0.49	DIP
HL60-040	0.4	0.8	60	40	2	5	0.88	0.45	0.56	DIP
HL60-050	0.5	1	60	40	2.5	5	0.78	0.4	0.77	DIP
HL60-065	0.65	1.3	60	40	3.25	5	0.5	0.31	0.88	DIP
HL60-075	0.75	1.5	60	40	3.75	5	0.42	0.25	0.92	DIP
HL60-090	0.9	1.8	60	40	4.5	5	0.33	0.2	0.99	DIP
HL60-110	1.1	2.2	60	40	5.5	8	0.27	0.15	1.5	DIP
HL60-135	1.35	2.7	60	40	6.75	8	0.21	0.12	1.7	DIP
HL60-160	1.6	3.2	60	40	8	8	0.16	0.09	1.9	DIP
HL60-185	1.85	3.7	60	40	9.25	8	0.14	0.08	2.1	DIP

Part Number	Ih(A)	It(A)	Vmax (Vdc)	Imax (A)	Trip current (A)	Trip time(s)	Rmax (Ω)	Rmin (Ω)	Pd typ(W)	Package
HL60-200	2	4	60	40	10	8	0.14	0.07	2.3	DIP
HL60-250	2.5	5	60	40	12.5	8	0.1	0.05	2.5	DIP
HL60-300	3	6	60	40	15	8	0.08	0.04	2.8	DIP
HL60-375	3.75	7.5	60	40	18.75	24	0.06	0.03	3.2	DIP
HL60-500	5	10	60	40	25	24	0.06	0.02	3.5	DIP
HL130-010	0.1	0.2	130	3	0.5	6	9	2.5	0.8	DIP
HL130-015	0.15	0.3	130	3	0.75	5.5	7.5	2.5	0.8	DIP
HL130-017	0.17	0.34	130	3	0.85	5.2	7	1.5	0.8	DIP
HL130-020	0.2	0.4	130	3	1	5	4	1.9	0.8	DIP
HL130-025	0.25	0.5	130	3	1.25	4.8	1.45	3.5	1	DIP
HL130-030	0.3	0.6	130	3	1.5	4.5	3	1	1	DIP
HL130-040	0.4	0.8	130	3	2	4.5	2	0.75	1	DIP
HL130-050	0.5	1	130	3	2.5	5	1.6	0.5	1	DIP
HL130-065	0.65	1.3	130	10	3.25	5.2	1	0.45	1	DIP
HL130-075	0.75	1.5	130	10	3.75	5.5	0.9	0.4	1	DIP
HL130-090	0.9	1.8	130	10	4.5	5.8	0.7	0.3	1.5	DIP
HL130-110	1.1	2.2	130	10	5.5	6.3	0.65	0.2	1.8	DIP
HL130-135	1.35	2.7	130	10	6.75	7.5	0.6	0.15	1.8	DIP
HL130-160	1.6	3.2	130	10	8	8	0.5	0.1	2	DIP
HL130-186	1.86	3.72	130	10	9.25	9	0.4	0.1	2	DIP
HL130-200	2	4	130	10	10	10	0.3	0.1	2.2	DIP
HL130-250	2.5	5	130	10	12.5	12	0.25	0.05	2.5	DIP
HL250-020	0.02	0.045	250	3	0.5	0.5	160	80	1	DIP
HL250-030	0.03	0.065	250	3	0.5	0.5	120	60	1	DIP
HL250-040	0.04	0.08	250	3	0.5	1.5	60	30	1	DIP
HL250-050	0.05	0.1	250	3	0.5	2	50	25	1	DIP
HL250-060	0.06	0.12	250	3	1	2	60	20	1	DIP
HL250-080	0.08	0.16	250	3	1	0.5	22	12	1	DIP
HL250-090	0.09	0.18	250	3	1	0.8	20	10	1	DIP
HL250-100	0.11	0.22	250	3	1	1	20	10	1	DIP
HL250-110	0.11	0.22	250	3	1	2	12	6	1	DIP
HL250-120	0.12	0.24	250	3	1	2	11	6	1	DIP
HL250-145	0.145	0.29	250	3	1	5	6.5	3.5	1	DIP
HL250-180	0.18	0.36	250	3	-	3	2.2	1	1.8	DIP
HL250-200	0.2	0.4	250	5	3	5	6	3	2.4	DIP
HL250-400	0.4	0.8	250	5	3	8	3	1	2.8	DIP
HL250-600	0.6	1.2	250	5	3	12	2	0.6	3.2	DIP
HL250-800	0.8	1.6	250	5	4	18	1	0.4	3.6	DIP
HL250-1000	1	2	250	7	5	20	0.8	0.3	3.6	DIP
HL250-1200	1.2	2.4	250	7	6	20	0.8	0.2	3.6	DIP
HL250-1500	1.5	3	250	7	7.5	20	0.6	0.2	4.8	DIP
HL250-2000	2	4	250	10	10	20	0.4	0.2	4.8	DIP
HL600-110	0.11	0.22	250	3	1	2	12	6	1	DIP
HL600-150	0.15	0.3	250	3	1	4	22	10	1	DIP
HL600-160	0.16	0.37	250	3	0.8	15	7.8	4.1	1	DIP

# MOV 压敏电阻

## MOV 的简介

压敏电阻，简称 MOV，分为贴片和插件两类，贴片小 MOV 常用于静电防护，通常设计在最靠近板边处的接口端，尤其会是在主要的电源汇入处或传输端，重点就是一开始让能量进入时就能稳压。MOV 作用是预防雷击造成的大突波电压跟着线路进到产品导致产品损毁；预防电源端不稳定的瞬态电压，跟着开关端进入产品，使产品功能破坏；预防静电进入产品，使产品破坏。

## MOV 的选用技巧

1. 确认最大容许电压：（产品工作电压/电源电压），电源供应系统：交流或直流；
2. 注意供电电压的稳定性：±10%、±30% 或±20%；
3. 最大抑制电压（设备可接受的暂态突波电压）；
4. 焦耳值  $Energy=K*V_c(V)*I_{pp}(A)*Time(S)$
5.  $V_{1mA}=1.5V_p=2.2V_{ac}$ ，式中， $V_p$  为电路额定电压的峰值（ $1.414*V_{ac}$ ）， $V_{ac}$  为额定交流电压的有效值， $V_{dr}$  压敏电阻的电压值选择至关重要，它关系到保护效果与使用寿命。

## Information of MOV

Metal Oxide Varistor is referred MOV, usually closed to the edge of the PCBA design on the Layout side, especially will be at the main power source supply into or transmit port, the important is regulated the energy firstly when entering. MOV role is prevention of surge from lightning cable into the products lead to damage; Prevention unstable power voltage following the ON/OFF side access to the circuit, make the product function damage;

Prevention damage static electricity into the product.

## The selection tips of MOV

1. Recognize the maximum allowable voltage: (product working voltage /supply voltage ), power supply: AC or DC;
2. Pay attention to the stability of the supply voltage: ±10%、±30% or±20%;
3. Maximum voltage (transient surge voltage of the device can accept);
4. Confirm  $Energy=K*V_c(v)*I_{pp}(a)*Time(s)$
5.  $V_{1mA}=1.5V_p=2.2V_{ac}$ , the  $V_p$  is the peak of circuit rated voltage ( $1.414*V_{ac}$ ),  $V_{ac}$  is a valid value of the rated AC voltage, selection the  $V_{dr}$  is essential, it is related to protection and longevity.



Part	Working		Breakdown		Clampin	Peak Current						
	Voltage		Voltage		Voltage	8/20uS(A) Ipp(MAX)						
Number	AC	DC	@ 1mA DC		8/20uS							
	V <sub>AC</sub>	V <sub>DC</sub>	V <sub>B</sub>		V <sub>C</sub>	0603	0805	1206	1210	1812	2220	3220
MVR0603-3R0G	1.4	2	3	2.4 ~ 3.6	9	20						
MVR0603-5R0G	2.4	3.3	5	4.0 ~ 6.0	12	20	60	80				
MVR0603-8R0G	4	5.5	8	7.0 ~ 10.5	14	20	60	80	250	400		
MVR0603-120G	7	9	12	10 ~ 14	24	20	60	80	250	400	800	
MVR0603-180G	11	14	18	15.5 ~ 21	30	20	80	100	250	400	800	500
MVR0603-240G	14	18	24	22-27	38	20	80	100	250	500	1200	500
MVR0603-270G	17	22	27	24 ~ 30	42	20	80	100	250	500	1200	500
MVR0603-330G	20	26	33	29 ~ 36	54	20	80	100	250	500	1200	500
MVR0603-390G	24	30	39	35 ~ 42	65	20	80	100	250	500	1200	500
MVR0603-470G	28	36	47	42 ~ 52	77	20	80	100	250	500	1200	500
MVR0603-560G	35	45	56	50 ~ 62	90		80	100	250	500	1200	500
MVR0603-680G	40	56	68	60 ~ 75	110			100	250	500	1200	500
MVR0603-820G	50	65	82	73 ~ 91	135			80	200	300	800	500
MVR0603-101G	60	85	100	90 ~ 110	165			80	200	300	800	500
MVR0603-121G	75	100	120	108 ~ 132	200				200	300	500	500
MVR0603-151G	95	125	150	135 ~ 165	250					300	500	500
MVR0603-181G	115	150	180	162 ~ 198	300						500	500
MVR0603-201G	130	170	205	184 ~ 226	340							500
MVR0603-221G	140	180	220	198 ~ 242	360							500
MVR0603-241G	150	200	240	216 ~ 264	395							500
MVR0603-271G	175	225	270	243 ~ 297	455							500
MVR0603-361G	230	300	360	324 ~ 396	595							500
MVR0603-391G	250	320	390	351 ~ 429	650							500
MVR0603-431G	275	350	430	387 ~ 473	710							400
MVR0603-471G	300	385	470	423 ~ 517	775							400
MVR0805-3R0G	1.4	2	3	2.4 ~ 3.6	9	20						
MVR0805-5R0G	2.4	3.3	5	4.0 ~ 6.0	12	20	60	80				
MVR0805-8R0G	4	5.5	8	7.0 ~ 10.5	14	20	60	80	250	400		
MVR0805-120G	7	9	12	10 ~ 14	24	20	60	80	250	400	800	
MVR0805-180G	11	14	18	15.5 ~ 21	30	20	80	100	250	400	800	500
MVR0805-240G	14	18	24	22-27	38	20	80	100	250	500	1200	500
MVR0805-270G	17	22	27	24 ~ 30	42	20	80	100	250	500	1200	500
MVR0805-330G	20	26	33	29 ~ 36	54	20	80	100	250	500	1200	500
MVR0805-390G	24	30	39	35 ~ 42	65	20	80	100	250	500	1200	500
MVR0805-470G	28	36	47	42 ~ 52	77	20	80	100	250	500	1200	500
MVR0805-560G	35	45	56	50 ~ 62	90		80	100	250	500	1200	500
MVR0805-680G	40	56	68	60 ~ 75	110			100	250	500	1200	500
MVR0805-820G	50	65	82	73 ~ 91	135			80	200	300	800	500
MVR0805-101G	60	85	100	90 ~ 110	165			80	200	300	800	500
MVR0805-121G	75	100	120	108 ~ 132	200				200	300	500	500
MVR0805-151G	95	125	150	135 ~ 165	250					300	500	500
MVR0805-181G	115	150	180	162 ~ 198	300						500	500
MVR0805-201G	130	170	205	184 ~ 226	340							500
MVR0805-221G	140	180	220	198 ~ 242	360							500

Part	Working		Breakdown		Clampin	Peak Current						
	Voltage		Voltage		Voltage	8/20uS(A) Ipp(MAX)						
Number	AC	DC	@ 1mA DC		8/20uS							
	V <sub>AC</sub>	V <sub>DC</sub>	V <sub>B</sub>		V <sub>C</sub>	0603	0805	1206	1210	1812	2220	3220
MVR0805-241G	150	200	240	216 ~ 264	395							500
MVR0805-271G	175	225	270	243 ~ 297	455							500
MVR0805-361G	230	300	360	324 ~ 396	595							500
MVR0805-391G	250	320	390	351 ~ 429	650							500
MVR0805-431G	275	350	430	387 ~ 473	710							400
MVR0805-471G	300	385	470	423 ~ 517	775							400
MVR1206-3R0G	1.4	2	3	2.4 ~ 3.6	9	20						
MVR1206-5R0G	2.4	3.3	5	4.0 ~ 6.0	12	20	60	80				
MVR1206-8R0G	4	5.5	8	7.0 ~ 10.5	14	20	60	80	250	400		
MVR1206-120G	7	9	12	10 ~ 14	24	20	60	80	250	400	800	
MVR1206-180G	11	14	18	15.5 ~ 21	30	20	80	100	250	400	800	500
MVR1206-240G	14	18	24	22-27	38	20	80	100	250	500	1200	500
MVR1206-270G	17	22	27	24 ~ 30	42	20	80	100	250	500	1200	500
MVR1206-330G	20	26	33	29 ~ 36	54	20	80	100	250	500	1200	500
MVR1206-390G	24	30	39	35 ~ 42	65	20	80	100	250	500	1200	500
MVR1206-470G	28	36	47	42 ~ 52	77	20	80	100	250	500	1200	500
MVR1206-560G	35	45	56	50 ~ 62	90		80	100	250	500	1200	500
MVR1206-680G	40	56	68	60 ~ 75	110			100	250	500	1200	500
MVR1206-820G	50	65	82	73 ~ 91	135			80	200	300	800	500
MVR1206-101G	60	85	100	90 ~ 110	165			80	200	300	800	500
MVR1206-121G	75	100	120	108 ~ 132	200				200	300	500	500
MVR1206-151G	95	125	150	135 ~ 165	250					300	500	500
MVR1206-181G	115	150	180	162 ~ 198	300						500	500
MVR1206-201G	130	170	205	184 ~ 226	340							500
MVR1206-221G	140	180	220	198 ~ 242	360							500
MVR1206-241G	150	200	240	216 ~ 264	395							500
MVR1206-271G	175	225	270	243 ~ 297	455							500
MVR1206-361G	230	300	360	324 ~ 396	595							500
MVR1206-391G	250	320	390	351 ~ 429	650							500
MVR1206-431G	275	350	430	387 ~ 473	710							400
MVR1206-471G	300	385	470	423 ~ 517	775							400
MVR1210-3R0G	1.4	2	3	2.4 ~ 3.6	9	20						
MVR1210-5R0G	2.4	3.3	5	4.0 ~ 6.0	12	20	60	80				
MVR1210-8R0G	4	5.5	8	7.0 ~ 10.5	14	20	60	80	250	400		
MVR1210-120G	7	9	12	10 ~ 14	24	20	60	80	250	400	800	
MVR1210-180G	11	14	18	15.5 ~ 21	30	20	80	100	250	400	800	500
MVR1210-240G	14	18	24	22-27	38	20	80	100	250	500	1200	500
MVR1210-270G	17	22	27	24 ~ 30	42	20	80	100	250	500	1200	500
MVR1210-330G	20	26	33	29 ~ 36	54	20	80	100	250	500	1200	500
MVR1210-390G	24	30	39	35 ~ 42	65	20	80	100	250	500	1200	500
MVR1210-470G	28	36	47	42 ~ 52	77	20	80	100	250	500	1200	500
MVR1210-560G	35	45	56	50 ~ 62	90		80	100	250	500	1200	500
MVR1210-680G	40	56	68	60 ~ 75	110			100	250	500	1200	500
MVR1210-820G	50	65	82	73 ~ 91	135			80	200	300	800	500

Part	Working		Breakdown		Clampin	Peak Current						
	Voltage		Voltage		Voltage							
Number	AC	DC	@ 1mA DC		8/20uS	8/20uS(A) Ipp(MAX)						
	V <sub>AC</sub>	V <sub>DC</sub>	V <sub>B</sub>		V <sub>C</sub>	0603	0805	1206	1210	1812	2220	3220
MVR1210-101G	60	85	100	90 ~ 110	165			80	200	300	800	500
MVR1210-121G	75	100	120	108 ~ 132	200				200	300	500	500
MVR1210-151G	95	125	150	135 ~ 165	250					300	500	500
MVR1210-181G	115	150	180	162 ~ 198	300						500	500
MVR1210-201G	130	170	205	184 ~ 226	340							500
MVR1210-221G	140	180	220	198 ~ 242	360							500
MVR1210-241G	150	200	240	216 ~ 264	395							500
MVR1210-271G	175	225	270	243 ~ 297	455							500
MVR1210-361G	230	300	360	324 ~ 396	595							500
MVR1210-391G	250	320	390	351 ~ 429	650							500
MVR1210-431G	275	350	430	387 ~ 473	710							400
MVR1210-471G	300	385	470	423 ~ 517	775							400
MVR1812-3R0G	1.4	2	3	2.4 ~ 3.6	9	20						
MVR1812-5R0G	2.4	3.3	5	4.0 ~ 6.0	12	20	60	80				
MVR1812-8R0G	4	5.5	8	7.0 ~ 10.5	14	20	60	80	250	400		
MVR1812-120G	7	9	12	10 ~ 14	24	20	60	80	250	400	800	
MVR1812-180G	11	14	18	15.5 ~ 21	30	20	80	100	250	400	800	500
MVR1812-240G	14	18	24	22-27	38	20	80	100	250	500	1200	500
MVR1812-270G	17	22	27	24 ~ 30	42	20	80	100	250	500	1200	500
MVR1812-330G	20	26	33	29 ~ 36	54	20	80	100	250	500	1200	500
MVR1812-390G	24	30	39	35 ~ 42	65	20	80	100	250	500	1200	500
MVR1812-470G	28	36	47	42 ~ 52	77	20	80	100	250	500	1200	500
MVR1812-560G	35	45	56	50 ~ 62	90		80	100	250	500	1200	500
MVR1812-680G	40	56	68	60 ~ 75	110			100	250	500	1200	500
MVR1812-820G	50	65	82	73 ~ 91	135			80	200	300	800	500
MVR1812-101G	60	85	100	90 ~ 110	165			80	200	300	800	500
MVR1812-121G	75	100	120	108 ~ 132	200				200	300	500	500
MVR1812-151G	95	125	150	135 ~ 165	250					300	500	500
MVR1812-181G	115	150	180	162 ~ 198	300						500	500
MVR1812-201G	130	170	205	184 ~ 226	340							500
MVR1812-221G	140	180	220	198 ~ 242	360							500
MVR1812-241G	150	200	240	216 ~ 264	395							500
MVR1812-271G	175	225	270	243 ~ 297	455							500
MVR1812-361G	230	300	360	324 ~ 396	595							500
MVR1812-391G	250	320	390	351 ~ 429	650							500
MVR1812-431G	275	350	430	387 ~ 473	710							400
MVR1812-471G	300	385	470	423 ~ 517	775							400
MVR2220-3R0G	1.4	2	3	2.4 ~ 3.6	9	20						
MVR2220-5R0G	2.4	3.3	5	4.0 ~ 6.0	12	20	60	80				
MVR2220-8R0G	4	5.5	8	7.0 ~ 10.5	14	20	60	80	250	400		
MVR2220-120G	7	9	12	10 ~ 14	24	20	60	80	250	400	800	
MVR2220-180G	11	14	18	15.5 ~ 21	30	20	80	100	250	400	800	500
MVR2220-240G	14	18	24	22-27	38	20	80	100	250	500	1200	500
MVR2220-270G	17	22	27	24 ~ 30	42	20	80	100	250	500	1200	500

Part	Working		Breakdown		Clampin	Peak Current						
	Voltage		Voltage		Voltage							
Number	AC	DC	@ 1mA DC		8/20uS	8/20uS(A) Ipp(MAX)						
	V <sub>AC</sub>	V <sub>DC</sub>	V <sub>B</sub>		V <sub>C</sub>	0603	0805	1206	1210	1812	2220	3220
MVR2220-330G	20	26	33	29 ~ 36	54	20	80	100	250	500	1200	500
MVR2220-390G	24	30	39	35 ~ 42	65	20	80	100	250	500	1200	500
MVR2220-470G	28	36	47	42 ~ 52	77	20	80	100	250	500	1200	500
MVR2220-560G	35	45	56	50 ~ 62	90		80	100	250	500	1200	500
MVR2220-680G	40	56	68	60 ~ 75	110			100	250	500	1200	500
MVR2220-820G	50	65	82	73 ~ 91	135			80	200	300	800	500
MVR2220-101G	60	85	100	90 ~ 110	165			80	200	300	800	500
MVR2220-121G	75	100	120	108 ~ 132	200				200	300	500	500
MVR2220-151G	95	125	150	135 ~ 165	250					300	500	500
MVR2220-181G	115	150	180	162 ~ 198	300						500	500
MVR2220-201G	130	170	205	184 ~ 226	340							500
MVR2220-221G	140	180	220	198 ~ 242	360							500
MVR2220-241G	150	200	240	216 ~ 264	395							500
MVR2220-271G	175	225	270	243 ~ 297	455							500
MVR2220-361G	230	300	360	324 ~ 396	595							500
MVR2220-391G	250	320	390	351 ~ 429	650							500
MVR2220-431G	275	350	430	387 ~ 473	710							400
MVR2220-471G	300	385	470	423 ~ 517	775							400
MVR3220-3R0G	1.4	2	3	2.4 ~ 3.6	9	20						
MVR3220-5R0G	2.4	3.3	5	4.0 ~ 6.0	12	20	60	80				
MVR3220-8R0G	4	5.5	8	7.0 ~ 10.5	14	20	60	80	250	400		
MVR3220-120G	7	9	12	10 ~ 14	24	20	60	80	250	400	800	
MVR3220-180G	11	14	18	15.5 ~ 21	30	20	80	100	250	400	800	500
MVR3220-240G	14	18	24	22-27	38	20	80	100	250	500	1200	500
MVR3220-270G	17	22	27	24 ~ 30	42	20	80	100	250	500	1200	500
MVR3220-330G	20	26	33	29 ~ 36	54	20	80	100	250	500	1200	500
MVR3220-390G	24	30	39	35 ~ 42	65	20	80	100	250	500	1200	500
MVR3220-470G	28	36	47	42 ~ 52	77	20	80	100	250	500	1200	500
MVR3220-560G	35	45	56	50 ~ 62	90		80	100	250	500	1200	500
MVR3220-680G	40	56	68	60 ~ 75	110			100	250	500	1200	500
MVR3220-820G	50	65	82	73 ~ 91	135			80	200	300	800	500
MVR3220-101G	60	85	100	90 ~ 110	165			80	200	300	800	500
MVR3220-121G	75	100	120	108 ~ 132	200				200	300	500	500
MVR3220-151G	95	125	150	135 ~ 165	250					300	500	500
MVR3220-181G	115	150	180	162 ~ 198	300						500	500
MVR3220-201G	130	170	205	184 ~ 226	340							500
MVR3220-221G	140	180	220	198 ~ 242	360							500
MVR3220-241G	150	200	240	216 ~ 264	395							500
MVR3220-271G	175	225	270	243 ~ 297	455							500
MVR3220-361G	230	300	360	324 ~ 396	595							500
MVR3220-391G	250	320	390	351 ~ 429	650							500
MVR3220-431G	275	350	430	387 ~ 473	710							400
MVR3220-471G	300	385	470	423 ~ 517	775							400

Part Number	Vac (V)	Vdc (V)	V1mA (V)	Ipp (A)	Vc (V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge	Rated power (W)	C @1KHz (pf)
05D180K 05D180KJ	11	14	18	1	40	100	250	0.4	0.6	0.01	1400
07D180K 07D180KJ	11	14	18	2.5	36	250	500	0.9	2	0.02	2800
10D180K 10D180KJ	11	14	18	5	36	500	1000	2.1	3	0.05	5600
14D180K 14D180KJ	11	14	18	10	36	1000	2000	4	7	0.1	11100
20D180K 20D180KJ	11	14	18	20	36	2000	3000	11	13	0.2	28500
25D180K 25D180KJ	11	14	18	30	36	4500	-	20	-	-	45000
05D220K 05D220KJ	14	18	22	1	48	100	250	0.5	0.7	0.01	1150
07D220K 07D220KJ	14	18	22	2.5	43	250	500	1.1	2.4	0.02	2300
10D220K 10D220KJ	14	18	22	5	43	500	1000	2.5	5	0.05	4500
14D220K 14D220KJ	14	18	22	10	43	1000	2000	5	8	0.1	9100
20D220K 20D220KJ	14	18	22	20	43	2000	3000	14	16	0.2	18500
25D220K 25D220KJ	14	18	22	30	43	4500	-	25	-	-	29000
05D270K 05D270KJ	17	22	27	1	60	100	250	0.6	0.9	0.01	930
07D270K 07D270KJ	17	22	27	2.5	53	250	500	1.4	3	0.02	1800
10D270K 10D270KJ	17	22	27	5	53	500	1000	3	6	0.05	3700
14D270K 14D270KJ	17	22	27	10	53	1000	2000	6	10	0.1	7400
20D270K 20D270KJ	17	22	27	20	53	2000	3000	16	19	0.2	13000
25D270K 25D270KJ	17	22	27	30	53	4500	-	30	-	-	26500
05D330K 05D330KJ	20	26	33	1	73	100	250	0.8	1.1	0.01	760
07D330K 07D330KJ	20	26	33	2.5	65	250	500	1.7	3.5	0.02	1500
10D330K 10D330KJ	20	26	33	5	66	500	1000	4	7	0.05	3000
14D330K 14D330KJ	20	26	33	10	66	1000	2000	7.5	12	0.1	6100
20D330K 20D330KJ	20	26	33	20	65	2000	3000	23	24	0.2	11500
25D330K 20D330KJ	20	26	33	30	65	4500	-	35	-	-	18000
05D390K 05D390KJ	25	31	39	1	80	100	250	0.9	1.2	0.01	640
07D390K 07D390KJ	25	31	39	2.5	77	250	500	2.1	4	0.02	1300
10D390K 10D390KJ	25	31	39	5	77	500	1000	4.6	9	0.05	2400
14D390K 14D390KJ	25	31	39	10	77	1000	2000	8.6	13	0.1	5100
20D390K 20D390KJ	25	31	39	20	77	2000	3000	26	28	0.2	8500
25D390K 25D390KJ	25	31	39	30	77	4500	-	40	-	-	13500
05D470K 05D470KJ	30	38	47	1	104	100	250	1.1	1.5	0.01	530
07D470K 07D470KJ	30	38	47	2.5	93	250	500	2.5	5	0.02	1100
10D470K 10D470KJ	30	38	47	5	93	500	1000	5.5	11	0.05	2100
14D470K 14D470KJ	30	38	47	10	93	1000	2000	10	17	0.1	4300
20D470K 20D470KJ	30	38	47	20	93	2000	3000	30	34	0.2	7400
25D470K 25D470KJ	30	38	47	30	93	4500	-	50	-	-	11500
05D560K 05D560KJ	35	45	56	1	123	100	250	1.3	1.8	0.01	450
07D560K 07D560KJ	35	45	56	2.5	110	250	500	3.1	6	0.02	900
10D560K 10D560KJ	35	45	56	5	100	500	1000	7	13	0.05	1800
14D560K 14D560KJ	35	45	56	10	100	1000	2000	11	20	0.1	3600
20D560K 20D560KJ	35	45	56	20	100	2000	3000	41	41	0.2	6500
25D560K 25D560KJ	35	45	56	30	100	4500	-	60	-	-	10500
05D680K 05D680KJ	40	56	68	1	150	100	250	1.6	2.2	0.01	370
07D680K 07D680KJ	40	56	68	2.5	135	250	500	3.6	7	0.02	740

Part Number	Vac (V)	Vdc (V)	V1mA (V)	Ipp (A)	Vc (V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge	Rated power (W)	C @1KHz (pf)
10D680K 10D680KJ	40	56	68	5	135	500	1000	8.2	15	0.05	1500
14D680K 14D680KJ	40	56	68	10	135	1000	2000	14	24	0.1	2900
20D680K 20D680KJ	40	56	68	20	135	2000	3000	46	49	0.2	5800
25D680K 25D680KJ	40	56	68	30	135	4500	-	70	-	-	9050
05D820K 05D820KJ	50	65	82	5	145	400	800	2.5	4	0.1	300
07D820K 07D820KJ	50	65	82	10	135	1200	1750	5.5	10	0.25	600
10D820K 10D820KJ	50	65	82	25	135	2500	3500	12	17	0.4	1200
14D820K 14D820KJ	50	65	82	50	135	4500	6000	22	27	0.6	2400
20D820K 20D820KJ	50	65	82	100	135	6500	10000	38	56	1	4900
25D820K 25D820KJ	50	65	82	150	135	15000	-	80	-	-	7700
05D101K 05D101KJ	60	85	100	5	177	400	800	3	4.1	0.1	250
07D101K 07D101KJ	60	85	100	10	165	1200	1750	6.5	12	0.25	500
10D101K 10D101KJ	60	85	100	25	165	2500	3500	15	18	0.4	1000
14D101K 14D101KJ	60	85	100	50	165	4500	6000	28	33	0.6	2000
20D101K 20D101KJ	60	85	100	100	165	6500	10000	45	70	1	4000
25D101K 25D101KJ	60	85	100	150	165	15000	-	100	-	-	6300
05D121K 05D121KJ	75	100	120	5	210	400	800	4	4.9	0.1	210
07D121K 07D121KJ	75	100	120	10	200	1200	1750	7.8	13	0.25	420
10D121K 10D121KJ	75	100	120	25	200	2500	3500	18	21	0.4	830
14D121K 14D121KJ	75	100	120	50	200	4500	6000	32	40	0.6	1700
20D121K 20D121KJ	75	100	120	100	200	6500	10000	55	85	1	3300
25D121K 25D121KJ	75	100	120	150	200	15000	-	120	-	-	5200
05D151K 05D151KJ	95	125	150	5	260	400	800	4.1	6.5	0.1	165
07D151K 07D151KJ	95	125	150	10	250	1200	1750	9.7	13	0.25	330
10D151K 10D151KJ	95	125	150	25	250	2500	3500	22	25	0.4	670
14D151K 14D151KJ	95	125	150	50	250	4500	6000	40	53	0.6	1300
20D151K 20D151KJ	95	125	150	100	250	6500	10000	70	106	1	2700
25D151K 25D151KJ	95	125	150	150	250	15000	-	160	-	-	4300
05D181K 05D181KJ	115	150	180	5	320	400	800	4.9	7.5	0.1	140
07D181K 07D181KJ	115	150	180	10	300	1200	1750	11.7	16	0.25	280
10D181K 10D181KJ	115	150	180	25	300	2500	3500	27	30	0.4	560
14D181K 14D181KJ	115	150	180	50	300	4500	6000	50	60	0.6	1100
20D181K 20D181KJ	115	150	180	100	300	6500	10000	85	130	1	2200
25D181K 25D181KJ	115	150	180	150	300	15000	-	175	-	-	3500
05D201K 05D201KJ	130	170	200	5	355	400	800	6.5	8.5	0.1	125
07D201K 07D201KJ	130	170	200	10	340	1200	1750	13	17	0.25	250
10D201K 10D201KJ	130	170	200	25	340	2500	3500	30	35	0.4	500
14D201K 14D201KJ	130	170	200	50	340	4500	6000	57	70	0.6	1000
20D201K 20D201KJ	130	170	200	100	340	6500	10000	95	140	1	2000
25D201K 25D201KJ	130	170	200	150	340	15000	-	190	-	-	3200
32D201K	130	170	200	200	340	20000	-	250	-	-	5200
34S201K	130	170	200	300	340	40000	-	330	-	-	8000
40D201K	130	170	200	300	340	40000	-	370	-	-	8400
53D201K	130	170	200	500	340	70000	-	550	-	-	15000

Part Number	Vac (V)	Vdc (V)	V1mA (V)	Ipp (A)	Vc (V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge	Rated power (W)	C @1KHz (pf)
32D221K	140	180	220	200	360	20000	-	270	-	-	5150
05D221K 05D221KJ	140	180	220	5	380	400	800	7.5	9	0.1	110
07D221K 07D221KJ	140	180	220	10	360	1200	1750	14	19	0.25	230
10D221K 10D221KJ	140	180	220	25	360	2500	3500	32	39	0.4	450
14D221K 14D221KJ	140	180	220	50	360	4500	6000	60	78	0.6	900
20D221K 20D221KJ	140	180	220	100	360	6500	10000	100	155	1	1800
25D221K 25D221KJ	140	180	220	150	360	15000	-	200	-	-	2900
34S221K	140	180	220	300	360	40000	-	360	-	-	7800
40D221K	140	180	220	300	360	40000	-	400	-	-	8200
53D221K	140	180	220	500	360	70000	-	600	-	-	13750
05D241K 05D241KJ	150	200	240	5	415	400	800	8	10.5	0.1	100
07D241K 07D241KJ	150	200	240	10	395	1200	1750	15	21	0.25	210
10D241K 10D241KJ	150	200	240	25	395	2500	3500	35	42	0.4	420
14D241K 14D241KJ	150	200	240	50	395	4500	6000	63	84	0.6	830
20D241K 20D241KJ	150	200	240	100	395	6500	10000	108	168	1	1650
25D241K 25D241KJ	150	200	240	150	395	15000	-	220	-	-	2650
32D241K	150	200	240	200	395	20000	-	290	-	-	5100
34S241K	150	200	240	300	395	40000	-	390	-	-	7600
40D241K	150	200	240	300	395	40000	-	430	-	-	8000
53D241K	150	200	240	500	395	70000	-	650	-	-	12500
05D271K 05D271KJ	175	225	270	5	475	400	800	8.5	11	0.1	95
07D271K 07D271KJ	175	225	270	10	455	1200	1750	18	24	0.25	185
10D271K 10D271KJ	175	225	270	25	455	2500	3500	40	49	0.4	370
14D271K 14D271KJ	175	225	270	50	455	4500	6000	70	99	0.6	740
20D271K 20D271KJ	175	225	270	100	455	6500	10000	127	190	1	1500
25D271K 25D271KJ	175	225	270	150	455	15000	-	255	-	-	2400
32D271K	175	225	270	200	455	20000	-	300	-	-	4800
34S271K	175	225	270	300	455	40000	-	420	-	-	7200
40D271K	175	225	270	300	455	40000	-	470	-	-	7600
53D271K	175	225	270	500	455	70000	-	700	-	-	11000
05D301K 05D301KJ	190	250	300	5	520	400	800	9	12	0.1	85
07D301K 07D301KJ	190	250	300	10	500	1200	1750	20	26	0.25	165
10D301K 10D301KJ	190	250	300	25	500	2500	3500	40	54	0.4	330
14D301K 14D301KJ	190	250	300	50	500	4500	6000	77	108	0.6	670
20D301K 20D301KJ	190	250	300	100	500	6500	10000	136	210	1	1300
25D301K 25D301KJ	190	250	300	150	500	15000	-	275	-	-	2100
32D301K	190	250	300	200	500	20000	-	330	-	-	4550
34S301K	190	250	300	300	500	40000	-	460	-	-	7000
40D301K	190	250	300	300	500	40000	-	510	-	-	7300
53D301K	190	250	300	500	500	70000	-	765	-	-	10000
05D331K 05D331KJ	210	275	330	5	570	400	800	9.5	13	0.1	75
07D331K 07D331KJ	210	275	330	10	550	1200	1750	23	25	0.25	150
10D331K 10D331KJ	210	275	330	25	550	2500	3500	40	58	0.4	300
14D331K 14D331KJ	210	275	330	50	550	4500	6000	85	115	0.6	610

Part Number	Vac (V)	Vdc (V)	V1mA (V)	Ipp (A)	Vc (V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge	Rated power (W)	C @1KHz (pf)
20D331K 20D331KJ	210	275	330	100	550	6500	10000	150	228	1	1200
25D331K 25D331KJ	210	275	330	150	550	15000	-	300	-	-	1900
32D331K	210	275	330	200	550	20000	-	360	-	-	4300
34S331K	210	275	330	300	550	40000	-	500	-	-	6400
40D331K	210	275	330	300	550	40000	-	550	-	-	6700
53D331K	210	275	330	500	550	70000	-	825	-	-	9000
05D361K 05D361KJ	230	300	360	5	620	400	800	10	16	0.1	70
07D361K 07D361KJ	230	300	360	10	595	1200	1750	25	32	0.25	140
10D361K 10D361KJ	230	300	360	25	595	2500	3500	43	65	0.4	280
14D361K 14D361KJ	230	300	360	50	595	4500	6000	93	130	0.6	560
20D361K 20D361KJ	230	300	360	100	595	6500	10000	163	255	1	1100
25D361K 25D361KJ	230	300	360	150	595	15000	-	330	-	-	1750
32D361K	230	300	360	200	595	20000	-	380	-	-	3900
34S361K	230	300	360	300	595	40000	-	510	-	-	6000
40D361K	230	300	360	300	595	40000	-	570	-	-	6200
53D361K	230	300	360	500	595	70000	-	850	-	-	8500
05D391K 05D391KJ	250	320	390	5	675	400	800	12	17	0.1	65
07D391K 07D391KJ	250	320	390	10	650	1200	1750	25	35	0.25	130
10D391K 10D391KJ	250	320	390	25	650	2500	3500	47	70	0.4	260
14D391K 14D391KJ	250	320	390	50	650	4500	6000	100	140	0.6	510
20D391K 20D391KJ	250	320	390	100	650	6500	10000	180	275	1	1000
25D391K 25D391KJ	250	320	390	150	650	15000	-	360	-	-	1600
32D391K	250	320	390	200	650	20000	-	400	-	-	3200
34S391K	250	320	390	300	650	40000	-	530	-	-	4800
40D391K	250	320	390	300	650	40000	-	590	-	-	5100
53D391K	250	320	390	500	650	70000	-	885	-	-	7500
05D431K 05D431KJ	275	350	430	5	745	400	800	13	20	0.1	60
07D431K 07D431KJ	275	350	430	10	710	1200	1750	28	40	0.25	115
10D431K 10D431KJ	275	350	430	25	710	2500	3500	60	80	0.4	230
14D431K 14D431KJ	275	350	430	50	710	4500	6000	115	155	0.6	460
20D431K 20D431KJ	275	350	430	100	710	6500	10000	190	305	1	930
25D431K 25D431KJ	275	350	430	150	710	15000	-	380	-	-	1500
32D431K	275	350	430	200	710	20000	-	430	-	-	3100
34S431K	275	350	430	300	710	40000	-	600	-	-	4600
40D431K	275	350	430	300	710	40000	-	660	-	-	4900
53D431K	275	350	430	500	710	70000	-	990	-	-	7000
05D471K 05D471KJ	300	385	470	5	810	400	800	15	21	0.1	55
07D471K 07D471KJ	300	385	470	10	775	1200	1750	30	42	0.25	105
10D471K 10D471KJ	300	385	470	25	775	2500	3500	65	85	0.4	210
14D471K 14D471KJ	300	385	470	50	775	4500	6000	125	175	0.6	430
20D471K 20D471KJ	300	385	470	100	775	6500	10000	220	350	1	850
25D471K 25D471KJ	300	385	470	150	775	15000	-	400	-	-	1400
32D471K	300	385	470	200	775	20000	-	460	-	-	2800
34S471K	300	385	470	300	775	40000	-	650	-	-	4100

Part Number	Vac (V)	Vdc (V)	V1mA (V)	Ipp (A)	Vc (V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge	Rated power (W)	C @1KHz (pf)
40D471K	300	385	470	300	775	40000	-	720	-	-	4300
53D471K	300	385	470	500	775	70000	-	1080	-	-	6500
05D511K 05D511KJ	320	415	510	5	845	400	800	16	22.5	0.1	50
07D511K 07D511KJ	320	415	510	10	845	1200	1750	30	45	0.25	100
10D511K 10D511KJ	320	415	510	25	845	2500	3500	70	90	0.4	200
14D511K 14D511KJ	320	415	510	50	845	4500	6000	125	180	0.6	390
20D511K 20D511KJ	320	415	510	100	845	6500	10000	220	360	1	780
25D511K 25D511KJ	320	415	510	150	845	15000	-	420	-	-	1250
32D511K	320	415	510	200	845	20000	-	510	-	-	2700
34S511K	320	415	510	300	845	40000	-	700	-	-	4000
40D511K	320	415	510	300	845	40000	-	770	-	-	4200
53D511K	320	415	510	500	845	70000	-	1150	-	-	6000
05D561K 05D561KJ	350	460	510	5	920	400	800	16	24	0.1	50
07D561K 07D561KJ	350	460	560	10	925	1200	1750	30	49	0.25	90
10D561K 10D561KJ	350	460	560	25	925	2500	3500	70	92	0.4	180
14D561K 14D561KJ	350	460	560	50	925	4500	6000	125	185	0.6	360
20D561K 20D561KJ	350	460	560	100	925	6500	10000	220	380	1	710
25D561K 25D561KJ	350	460	560	150	925	15000	-	440	-	-	1150
32D561K	350	460	560	200	925	20000	-	540	-	-	2550
34S561K	350	460	560	300	925	40000	-	730	-	-	3800
40D561K	350	460	560	300	925	40000	-	810	-	-	4000
53D561K	350	460	560	500	925	70000	-	1200	-	-	5500
05D621K 05D621KJ	385	505	620	5	1025	400	800	21	24	0.1	40
07D621K 07D621KJ	385	505	620	10	1025	1200	1750	33	55	0.25	80
10D621K 10D621KJ	385	505	620	25	1025	2500	3500	70	95	0.4	160
14D621K 14D621KJ	385	505	620	50	1025	4500	6000	125	190	0.6	320
20D621K 20D621KJ	385	505	620	100	1025	6500	10000	220	390	1	650
25D621K 25D621KJ	385	505	620	150	1025	15000	-	460	-	-	1050
32D621K	385	505	620	200	1025	20000	-	570	-	-	2400
34S621K	385	505	620	300	1025	40000	-	780	-	-	3600
40D621K	385	505	620	300	1025	40000	-	860	-	-	3800
53D621K	385	505	620	500	1025	70000	-	1300	-	-	5000
05D681K 05D681KJ	420	560	680	5	1120	400	800	21	25	0.1	35
07D681K 07D681KJ	420	560	680	10	1120	1200	1750	33	60	0.25	75
10D681K 10D681KJ	420	560	680	25	1120	2500	3500	70	98	0.4	150
14D681K 14D681KJ	420	560	680	50	1120	4500	6000	130	200	0.6	290
20D681K 20D681KJ	420	560	680	100	1120	6500	10000	230	400	1	600
25D681K 25D681KJ	420	560	680	150	1120	15000	-	450	-	-	950
32D681K	420	560	680	200	1120	20000	-	600	-	-	2200
34S681K	420	560	680	300	1120	40000	-	810	-	-	3300
40D681K	420	560	680	300	1120	40000	-	900	-	-	3500
53D681K	420	560	680	500	1120	70000	-	1350	-	-	4500
05D751K 05D751KJ	460	615	750	5	1240	400	800	22.4	32	0.1	30
07D751K 07D751KJ	460	615	750	10	1240	1200	1750	67.2	65	0.25	70

Part Number	Vac (V)	Vdc (V)	V1mA (V)	Ipp (A)	Vc (V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge	Rated power (W)	C @1KHz (pf)
10D751K 10D751KJ	460	615	750	25	1240	2500	3500	70	100	0.4	130
14D751K 14D751KJ	460	615	750	50	1240	4500	6000	143	210	0.6	270
20D751K 20D751KJ	460	615	750	100	1240	6500	10000	255	420	1	530
25D751K 25D751KJ	460	615	750	150	1240	15000	-	510	-	-	850
32D751K	460	615	750	200	1240	20000	-	620	-	-	2000
34S751K	460	615	750	300	1240	40000	-	850	-	-	3000
40D751K	460	615	750	300	1240	40000	-	940	-	-	3200
53D751K	460	615	750	500	1240	70000	-	1400	-	-	4000
07D781K 07D781KJ	485	640	780	10	1290	1200	1750	67.2	65	0.25	70
10D781K 10D781KJ	485	640	780	25	1290	2500	3500	80	105	0.4	130
14D781K 14D781KJ	485	640	780	50	1290	4500	6000	148	220	0.6	260
20D781K 20D781KJ	485	640	780	100	1290	6500	10000	265	440	1	510
25D781K 25D781KJ	485	640	780	150	1290	15000	-	530	-	-	800
32D781K	485	640	780	200	1290	20000	-	660	-	-	1900
34S781K	485	640	780	300	1290	40000	-	930	-	-	2850
40D781K	485	640	780	300	1290	40000	-	980	-	-	3000
53D781K	485	640	780	500	1290	70000	-	1450	-	-	3900
07D821K 07D821KJ	510	670	820	10	1335	1200	1750	67.2	70	0.25	60
10D821K 10D821KJ	510	670	820	25	1335	2500	3500	85	110	0.4	120
14D821K 14D821KJ	510	670	820	50	1335	4500	6000	157	235	0.6	240
20D821K 20D821KJ	510	670	820	100	1335	6500	10000	282	460	1	500
25D821K 25D821KJ	510	670	820	150	1335	15000	-	570	-	-	700
32D821K	510	670	820	200	1335	20000	-	700	-	-	1800
34S821K	510	670	820	300	1335	40000	-	970	-	-	2700
40D821K	510	670	820	300	1335	40000	-	1080	-	-	2900
53D821K	510	670	820	500	1335	70000	-	1600	-	-	3700
10D911K 10D911KJ	550	745	910	25	1500	2500	3500	93	130	0.4	110
14D911K 14D911KJ	550	745	910	50	1500	4500	6000	175	255	0.6	220
20D911K 20D911KJ	550	745	910	100	1500	6500	10000	310	510	1	440
25D911K 25D911KJ	550	745	910	150	1500	15000	-	620	-	-	650
32D911K	550	745	910	200	1500	20000	-	750	-	-	1300
34S911K	550	745	910	300	1500	40000	-	1050	-	-	2100
40D911K	550	745	910	300	1500	40000	-	1150	-	-	2200
53D911K	550	745	910	500	1500	70000	-	1700	-	-	3300
32D951K	575	765	950	200	1570	20000	-	780	-	-	1200
34S951K	575	765	950	300	1570	40000	-	1080	-	-	1900
40D951K	575	765	950	300	1570	40000	-	1200	-	-	2000
53D951K	575	765	950	500	1570	70000	-	1800	-	-	3200
10D102K 10D102KJ	625	825	1000	25	1650	2500	3500	102	140	0.4	100
14D102K 14D102KJ	625	825	1000	50	1650	4500	6000	190	280	0.6	200
20D102K 20D102KJ	625	825	1000	100	1650	6500	10000	342	565	1	400
25D102K 25D102KJ	625	825	1000	150	1650	15000	-	685	-	-	600
32D102K	625	825	1000	200	1650	20000	-	810	-	-	1100
34S102K	625	825	1000	300	1650	40000	-	1120	-	-	1700

Part Number	Vac (V)	Vdc (V)	V1mA (V)	Ipp (A)	Vc (V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge	Rated power (W)	C @1KHz (pf)
40D102K	625	825	1000	300	1650	40000	-	1260	-	-	1800
53D102K	625	825	1000	500	1650	70000	-	1890	-	-	3000
10D112K 10D112KJ	680	895	1100	25	1815	2500	3500	115	155	0.4	90
14D112K 14D112KJ	680	895	1100	50	1815	4500	6000	213	310	0.6	180
20D112K 20D112KJ	680	895	1100	100	1815	6500	10000	383	620	1	460
25D112K 25D112KJ	680	895	1100	150	1815	15000	-	770	-	-	550
32D112K	680	895	1100	200	1815	20000	-	910	-	-	1000
34S112K	680	895	1100	300	1815	40000	-	1250	-	-	1520
40D112K	680	895	1100	300	1815	40000	-	1380	-	-	1600
53D112K	680	895	1100	500	1815	70000	-	2050	-	-	2700
14D122K 14D122KJ	750	990	1200	50	1980	4500	6000	213	310	0.6	150
20D122K 20D122KJ	750	990	1200	100	1980	6500	10000	408	660	1	320
25D122K 25D122KJ	750	990	1200	150	1980	15000	-	850	-	-	500
32D122K	750	990	1200	200	1980	20000	-	960	-	-	920
34S122K	750	990	1200	300	1980	40000	-	1250	-	-	1400
34S122K	750	990	1400	300	2310	40000	-	1400	-	-	1200
40D122K	750	990	1200	300	1980	40000	-	1380	-	-	1500
53D122K	750	990	1200	500	1980	70000	-	2050	-	-	2500
32D142K	880	1140	1400	200	2310	20000	-	1020	-	-	800
34S142K	880	1140	1400	300	2310	40000	-	1400	-	-	1200
40D142K	880	1140	1400	300	2310	40000	-	1550	-	-	1300
53D142K	880	1140	1400	500	2310	70000	-	2300	-	-	2150
32D162K	1000	1280	1600	200	2640	20000	-	1080	-	-	700
34S162K	1000	1280	1600	300	2640	40000	-	1500	-	-	1100
40D162K	1000	1280	1600	300	2640	40000	-	1700	-	-	1150
53D162K	1000	1280	1600	500	2640	70000	-	2500	-	-	1900
10D182K 10D182KJ	1000	1465	1800	25	2970	2500	3500	133	250	0.4	70
14D182K 14D182KJ	1000	1465	1800	50	2970	4500	6000	250	335	0.6	130
20D182K 20D182KJ	1000	1465	1800	100	2970	6500	10000	625	660	1	320
25D182K 25D182KJ	1000	1465	1800	150	2970	15000	-	970	-	-	450

# Rectifier 整流管

## Rectifier 的简介

整流管，是有两个电极的装置，只允许电流由单一方向流过，许多的使用是应用其整流的功能。可分为：普通整流管、快恢复整流管、超快速恢复整流管、肖特基管和桥式整流器。

## 整流管的选用技巧

1. 根据电路电压选择合适的  $I_{FSM}$  和  $V_{RRM}$
2.  $V_f$  小比大好；
3. 根据电路需要选择 TRR 和封装。

## Information of rectifier

A rectifier diode lets electrical current flow in only one direction and is mainly used for power supply operation. Rectifier diodes can handle higher current flow than regular diodes and are generally used in order to change alternating current into direct current. They are designed as discrete components or as integrated circuits and are usually fabricated from silicon and characterized by a fairly large P-N-junction surface. This results in high capacitance under reverse-bias conditions. In high-voltage supplies, two rectifier diodes or more may be connected in series in order to increase the peak-inverse-voltage (PIV) rating of the combination. the mainly types of rectifier are:

Standard Rectifiers

Fast Rectifier

Ultrafast Rectifiers

Schottky Diodes

Bridge Rectifiers

## The selection Tips of Rectifier Diode

1. According to voltage suitable, select  $I_{FSM}$  and  $V_{RRM}$ ;
2. It will be better if the  $V_f$  is smaller;
3. According circuit necessary to select TRR and package.



Part No.	$V_{RRM}$	$I_{F(AV)}$ (A)	$I_{FSM}$ (A)	$V_F$ (V)	$I_R$ ( $T_A = 25$ )	Package
RB520S8-30	30	0.2	0.5	0.45	1 $\mu$ A	SOD-882
LM631BS-40	40	0.2	0.5	0.4	0.4 $\mu$ A	SOD-882
RB521S-30	30	0.2	1	0.5	30 $\mu$ A	SOD-523
RB521S-40	40	0.2	4	0.16	20 $\mu$ A	SOD-523
SD103AX	40	0.2	2	0.27	1 $\mu$ A	SOD-523
SM5817WS	20	1	9	0.45	1mA	SOD-323
SM5818WS	30	1	9	0.55	1mA	SOD-323
SM5819WS	40	1	9	0.6	1mA	SOD-323
MBR0520	20	0.5	5.5	0.45	0.2mA	SOD-123
MBR0530	30	0.5	5.5	0.55	0.2mA	SOD-123
MBR0540	40	0.5	5.5	0.55	0.2mA	SOD-123
MBR0560	60	0.5	5.5	0.7	0.2mA	SOD-123
MBR0580	80	0.5	5.5	0.8	0.2mA	SOD-123
B5817W	20	1	25	0.45	1mA	SOD-123
B5818W	30	1	25	0.55	1mA	SOD-123
B5819W	40	1	25	0.6	1mA	SOD-123
MBRX160	60	1	20	0.72	0.3mA	SOD-123
RB161M-20	20	1	25	0.45	1mA	SOD-123FL
RB160M-30	30	1	25	0.55	1mA	SOD-123FL
RB160M-40	40	1	25	0.6	1mA	SOD-123FL
DSK12	20	1	25	0.5	0.5mA	SOD-123FL
DSK13	30	1	25	0.55	0.5mA	SOD-123FL
DSK14	40	1	25	0.55	0.5mA	SOD-123FL
DSK15	50	1	25	0.7	0.5mA	SOD-123FL
DSK16	60	1	25	0.7	0.5mA	SOD-123FL
DSK18	80	1	25	0.85	0.5mA	SOD-123FL
DSK110	100	1	25	0.85	0.5mA	SOD-123FL
DSK115	150	1	25	0.95	0.5mA	SOD-123FL
DSK120	200	1	25	0.95	0.5mA	SOD-123FL
DSK22	20	2	50	0.55	0.5mA	SOD-123FL
DSK24	40	2	50	0.55	0.5mA	SOD-123FL
DSK24L	40	3	60	0.31	0.2mA	SOD-123FL
DSK26	60	2	50	0.7	0.5mA	SOD-123FL
DSK26H	60	2	50	0.74	0.1 $\mu$ A	SOD-123FL
DSK28	80	2	50	0.7	0.3mA	SOD-123FL
DSK210	100	2	40	0.85	0.3mA	SOD-123FL
DSK212	120	2	40	0.85	0.3mA	SOD-123FL
DSK215	150	2	40	0.95	0.3mA	SOD-123FL
DSK220	200	2	40	0.95	0.3mA	SOD-123FL
DSK32	20	3	80	0.55	0.5mA	SOD-123FL
DSK34	40	3	80	0.55	0.5mA	SOD-123FL

Part No.	$V_{RRM}$	$I_{F(AV)}$ (A)	$I_{FSM}$ (A)	$V_F$ (V)	$I_R$ ( $T_A = 25$ )	Package
DSK34L	40	3	60	0.31	0.2mA	SOD-123FL
DSK36	60	3	80	0.7	0.3mA	SOD-123FL
DSK36L	40	3	60	0.5	0.2mA	SOD-123FL
DSK38	80	3	80	0.7	0.3mA	SOD-123FL
DSK310	100	3	70	0.85	0.3mA	SOD-123FL
DSK312	120	3	70	0.85	0.3mA	SOD-123FL
DSK315	150	3	70	0.95	0.3mA	SOD-123FL
DSK320	200	3	70	0.95	0.3mA	SOD-123FL
SBR26HD	60	2	50	0.72	0.1uA	SOD-123FL
SS12	20	1	40	0.5	0.5mA	SMA
SS13	30	1	40	0.55	0.5mA	SMA
SS14	40	1	40	0.55	0.5mA	SMA
SS15	50	1	40	0.7	0.5mA	SMA
SS16	60	1	40	0.7	0.5mA	SMA
SS18	80	1	40	0.85	0.5mA	SMA
SS110	100	1	40	0.85	0.5mA	SMA
SS115	150	1	40	0.95	0.5mA	SMA
SS120	200	1	40	0.95	0.5mA	SMA
SS22	20	2	50	0.55	0.5mA	SMA
SS23	30	2	50	0.55	0.5mA	SMA
SS24	40	2	50	0.55	0.5mA	SMA
SS25	50	2	50	0.7	0.5mA	SMA
SS26	60	2	50	0.7	0.5mA	SMA
SS28	80	2	50	0.85	0.5mA	SMA
SS210	100	2	50	0.85	0.5mA	SMA
SS34LVFA	40	3	80	0.42	0.2mA	SMA
SS34LA	40	3	90	0.45	1mA	SMA
SS32A	20	3	80	0.5	5mA	SMA
SS33A	30	3	80	0.5	5mA	SMA
SS34A	40	3	80	0.5	5mA	SMA
SS35A	50	3	80	0.75	5mA	SMA
SS36A	60	3	80	0.75	5mA	SMA
SS38A	80	3	80	0.85	5mA	SMA
SS310A	100	3	80	0.85	5mA	SMA
SS3150A	150	3	80	0.9	0.2mA	SMA
SK12	20	1	30	0.45	0.5mA	SMB
SK13	30	1	30	0.55	0.5mA	SMB
SK14	40	1	30	0.6	0.5mA	SMB
SK15	50	1	30	0.72	0.5mA	SMB
SK16	60	1	30	0.72	0.5mA	SMB
SK18	80	1	30	0.85	0.5mA	SMB

Part No.	$V_{RRM}$	$I_{F(AV)}$ (A)	$I_{FSM}$ (A)	$V_F$ (V)	$I_R$ (TA = 25)	Package
SK110	100	1	30	0.85	0.5mA	SMB
SK22	20	2	50	0.5	2mA	SMB
SK23	30	2	50	0.5	2mA	SMB
SK24	40	2	50	0.5	2mA	SMB
SK25	50	2	50	0.7	1mA	SMB
SK26	60	2	50	0.7	1mA	SMB
SK28	80	2	50	0.85	1mA	SMB
SK210	100	2	50	0.85	1mA	SMB
SK32B	20	3	100	0.5	0.5mA	SMB
SK33B	30	3	100	0.5	0.5mA	SMB
SK34B	40	3	100	0.5	0.5mA	SMB
SK35B	50	3	100	0.75	0.5mA	SMB
SK36B	60	3	100	0.75	0.5mA	SMB
SK38B	80	3	100	0.85	0.5mA	SMB
SK310B	100	3	100	0.85	0.5mA	SMB
SK52B	20	5	100	0.55	1mA	SMB
SK53B	30	5	100	0.55	1mA	SMB
SK54B	40	5	100	0.55	1mA	SMB
SK55B	50	5	100	0.75	1mA	SMB
SK56B	60	5	100	0.75	1mA	SMB
SK58B	80	5	100	0.85	1mA	SMB
SK510B	100	5	100	0.85	1mA	SMB
SK32	20	3	100	0.5	0.5mA	SMC
SK33	30	3	100	0.5	0.5mA	SMC
SK34	40	3	100	0.5	0.5mA	SMC
SK35	50	3	100	0.75	0.5mA	SMC
SK36	60	3	100	0.75	0.5mA	SMC
SK38	80	3	100	0.85	0.5mA	SMC
SK310	100	3	100	0.85	0.5mA	SMC
SK52	20	5	150	0.55	1mA	SMC
SK53	30	5	150	0.55	1mA	SMC
SK54	40	5	150	0.55	1mA	SMC
SK55	50	5	150	0.75	1mA	SMC
SK56	60	5	150	0.75	1mA	SMC
SK58	80	5	150	0.85	1mA	SMC
SK510	100	5	150	0.85	1mA	SMC
SS10U35	35	10	150	0.45	300uA	TO-277
SS10U45	45	10	150	0.45	300uA	TO-277
SS10U50	50	10	150	0.45	300uA	TO-277
SS10U60	60	10	150	0.5	300uA	TO-277
SS10U80	80	10	150	0.75	300uA	TO-277

Part No.	V <sub>RRM</sub>	I <sub>F(AV)</sub> (A)	I <sub>FSM</sub> (A)	V <sub>F</sub> (V)	I <sub>R</sub> (TA = 25)	Package
LA1	50	1	25	1.1	10μA	SOD-123FL
LA2	100	1	25	1.1	10μA	SOD-123FL
LA3	200	1	25	1.1	10μA	SOD-123FL
LA4	400	1	25	1.1	10μA	SOD-123FL
LA5	600	1	25	1.1	10μA	SOD-123FL
LA6	800	1	25	1.1	10μA	SOD-123FL
LA7	1000	1	25	1.1	10μA	SOD-123FL
M1	50	1	30	1	10μA	SMA
M2	100	1	30	1	10μA	SMA
M3	200	1	30	1	10μA	SMA
M4	400	1	30	1	10μA	SMA
M5	600	1	30	1	10μA	SMA
M6	800	1	30	1	10μA	SMA
M7	1000	1	30	1	10μA	SMA
ES1A	50	1	30	0.975	5μA	SMA
ES1B	100	1	30	0.975	5μA	SMA
ES1C	150	1	30	0.975	5μA	SMA
ES1D	200	1	30	0.975	5μA	SMA
ES1G	400	1	30	1.35	5μA	SMA
ES1J	600	1	30	1.35	5μA	SMA
ES1K	800	1	30	1.7	5μA	SMA
ES1M	1000	1	30	1.7	5μA	SMA
ES2A	50	2	50	0.975	5μA	SMA
ES2B	100	2	50	0.975	5μA	SMA
ES2C	150	2	50	0.975	5μA	SMA
ES2D	200	2	50	0.975	5μA	SMA
ES2G	400	2	50	1.35	5μA	SMA
ES2J	600	2	50	1.35	5μA	SMA
ES2K	800	2	50	1.7	5μA	SMA
ES2M	1000	2	50	1.7	5μA	SMA
ER1A	50	1	30	0.975	5μA	SMB
ER1B	100	1	30	0.975	5μA	SMB
ER1C	150	1	30	0.975	5μA	SMB
ER1D	200	1	30	0.975	5μA	SMB
ER1G	400	1	30	1.35	5μA	SMB
ER1J	600	1	30	1.35	5μA	SMB
ER1K	800	1	30	1.35	5μA	SMB
ER1M	1000	1	30	1.6	5μA	SMB
S2A	50	2	50	1.15	10μA	SMB
S2B	100	2	50	1.15	10μA	SMB
S2D	200	2	50	1.15	10μA	SMB

Part No.	$V_{RRM}$	$I_{F(AV)}$ (A)	$I_{FSM}$ (A)	$V_F$ (V)	$I_R$ ( $T_A = 25$ )	Package
S2G	400	2	50	1.15	10 $\mu$ A	SMB
S2J	600	2	50	1.15	10 $\mu$ A	SMB
S2K	800	2	50	1.15	10 $\mu$ A	SMB
S2M	1000	2	50	1.15	10 $\mu$ A	SMB
S3A	50	3	150	1	5 $\mu$ A	SMC
S3B	100	3	150	1	5 $\mu$ A	SMC
S3D	200	3	150	1	5 $\mu$ A	SMC
S3G	400	3	150	1.3	5 $\mu$ A	SMC
S3J	600	3	150	1.7	5 $\mu$ A	SMC
S3K	800	3	150	1.7	5 $\mu$ A	SMC
S3M	1000	3	150	1.7	5 $\mu$ A	SMC
IB038S	800	0.3	16	0.92	5 $\mu$ A	IBS
IB0310S	1000	0.3	16	0.92	5 $\mu$ A	IBS
VMB054S	400	0.5	20	0.95	5 $\mu$ A	IBS
VMB056S	600	0.5	20	0.95	5 $\mu$ A	IBS
VMB058S	800	0.5	20	0.95	5 $\mu$ A	IBS
VMB0510S	1000	0.5	20	0.95	5 $\mu$ A	IBS
VMB4S	400	0.8	30	1	5 $\mu$ A	IBS
VMB6S	600	0.8	30	1	5 $\mu$ A	IBS
VMB8S	800	0.8	30	1	5 $\mu$ A	IBS
VMB10S	1000	0.8	30	1	5 $\mu$ A	IBS
MB05F	50	0.8	30	1.05	10 $\mu$ A	MBF
MB1F	100	0.8	30	1.05	10 $\mu$ A	MBF
MB2F	200	0.8	30	1.05	10 $\mu$ A	MBF
MB4F	400	0.8	30	1.05	10 $\mu$ A	MBF
MB6F	600	0.8	30	1.05	10 $\mu$ A	MBF
MB8F	800	0.8	30	1.05	10 $\mu$ A	MBF
MB10F	1000	0.8	30	1.05	10 $\mu$ A	MBF
MB4S	400	0.8	35	1	5 $\mu$ A	MBS
MB6S	600	0.8	35	1	5 $\mu$ A	MBS
MB10S	1000	0.8	35	1	5 $\mu$ A	MBS
LB4S	400	0.8	30	1	5 $\mu$ A	ABS
LB6S	600	0.8	30	1	5 $\mu$ A	ABS
LB10S	1000	0.8	30	1	5 $\mu$ A	ABS
DF151S	50	1.5	50	1.1	10 $\mu$ A	DF-S
DF152S	100	1.5	50	1.1	10 $\mu$ A	DF-S
DF153S	200	1.5	50	1.1	10 $\mu$ A	DF-S
DF154S	400	1.5	50	1.1	10 $\mu$ A	DF-S
DF155S	600	1.5	50	1.1	10 $\mu$ A	DF-S
DF156S	800	1.5	50	1.1	10 $\mu$ A	DF-S
DF157S	1000	1.5	50	1.1	10 $\mu$ A	DF-S

# Zener 稳压管

## Zener 的简介

稳压二极管(又叫齐纳二极管),是一种硅材料制成的面接触型晶体二极管,简称稳压管。此二极管是一种直到临界反向击穿电压前都具有很高电阻的半导体器件。稳压管在反向击穿时,在一定的电流范围内(或者说在一定功率损耗范围内),端电压几乎不变,表现出稳压特性,因而广泛应用于稳压电源与限幅电路之中。稳压二极管是根据击穿电压来分档的,因为这种特性,稳压管主要被作为稳压器或电压基准元件使用。稳压二极管可以串联起来以便在较高的电压上使用,通过串联就可获得更多的稳定电压,称为双向稳压管。

器件功率从 0.5W---5W 不等。

电压从 2.4V ---200V 不等。

## Information of Zener

Zener diode is a surface contact crystal diode made of silicon material. This diode is a semiconductor device with high resistance until the critical reverse breakdown voltage age is reached. In a certain range of current (or in a certain range of power loss), the voltage regulator is almost invariable in a certain range of current (or in a certain range of power loss), which shows a steady voltage characteristic, so it is widely used in the voltage regulator and limiting circuit. The voltage stabilizing diode is divided according to the breakdown voltage. Because of this characteristic, the regulator is mainly used as a voltage regulator or a voltage reference element. A voltage stabilizing diode can be connected in series for higher voltage, and more stable voltage can be obtained by connecting series, which is called a bidirectional voltage regulator.

The power of the device vanes from 0.5W-5W.

Voltage from 2. 4V to 200.



Part Number	Zener Voltage				P <sub>D</sub> (mW)	Package
	V <sub>Z</sub> (V)			@ I <sub>ZT</sub>		
	Min	Nom	Max	mA		
LNZ8F2V4T5G	2.28	2.4	2.52	5	200	SOD-882
LNZ8F2V7T5G	2.57	2.7	2.84	5	200	SOD-882
LNZ8F3V0T5G	2.85	3	3.15	5	200	SOD-882
LNZ8F3V3T5G	3.14	3.3	3.47	5	200	SOD-882
LNZ8F3V6T5G	3.42	3.6	3.78	5	200	SOD-882
LNZ8F3V9T5G	3.71	3.9	4.1	5	200	SOD-882
LNZ8F4V3T5G	4.09	4.3	4.52	5	200	SOD-882
LNZ8F4V7T5G	4.47	4.7	4.94	5	200	SOD-882
LNZ8F5V1T5G	4.85	5.1	5.36	5	200	SOD-882
LNZ8F5V6T5G	5.32	5.6	5.88	5	200	SOD-882
LNZ8F6V2T5G	5.89	6.2	6.51	5	200	SOD-882
LNZ8F6V8T5G	6.46	6.8	7.14	5	200	SOD-882
LNZ8F7V5T5G	7.13	7.5	7.88	5	200	SOD-882
LNZ8F8V2T5G	7.79	8.2	8.61	5	200	SOD-882
LNZ8F9V1T5G	8.65	9.1	9.56	5	200	SOD-882
LNZ8F10VT5G	9.5	10	10.5	5	200	SOD-882
LNZ8F11VT5G	10.45	11	11.55	5	200	SOD-882
LNZ8F12VT5G	11.4	12	12.6	5	200	SOD-882
LNZ8F13VT5G	12.35	13.25	13.65	5	200	SOD-882
LNZ8F15VT5G	14.25	15	15.75	5	200	SOD-882
LNZ8F16VT5G	15.2	16.2	16.8	5	200	SOD-882
LNZ8F18VT5G	17.1	18	18.9	5	200	SOD-882
LNZ8F20VT5G	19	20	21	5	200	SOD-882
LNZ8F22VT5G	20.9	22	23.1	5	200	SOD-882
LNZ8F24VT5G	22.8	24.2	25.2	5	200	SOD-882
LM5Z2V0T1G	1.91	2	2.09	5	200	SOD-523
LM5Z2V4T1G	2.2	2.4	2.6	5	200	SOD-523
LM5Z2V7T1G	2.5	2.7	2.9	5	200	SOD-523
LM5Z3V0T1G	2.8	3	3.2	5	200	SOD-523
LM5Z3V3T1G	3.1	3.3	3.5	5	200	SOD-523
LM5Z3V6T1G	3.4	3.6	3.8	5	200	SOD-523
LM5Z3V9T1G	3.7	3.9	4.1	5	200	SOD-523
LM5Z4V3T1G	4	4.3	4.6	5	200	SOD-523
LM5Z4V7T1G	4.4	4.7	5	5	200	SOD-523
LM5Z5V1T1G	4.8	5.1	5.4	5	200	SOD-523
LM5Z5V6T1G	5.2	5.6	6	5	200	SOD-523
LM5Z6V2T1G	5.8	6.2	6.6	5	200	SOD-523
LM5Z6V8T1G	6.4	6.8	7.2	5	200	SOD-523
LM5Z7V5T1G	7	7.5	7.9	5	200	SOD-523
LM5Z8V2T1G	7.7	8.2	8.7	5	200	SOD-523
LM5Z9V1T1G	8.5	9.1	9.6	5	200	SOD-523
LM5Z10VT1G	9.4	10	10.6	5	200	SOD-523
LM5Z11VT1G	10.4	11	11.6	5	200	SOD-523
LM5Z12VT1G	11.4	12	12.7	5	200	SOD-523
LM5Z13VT1G	12.4	13.25	14.1	5	200	SOD-523
LM5Z15VT1G	14.3	15	15.8	5	200	SOD-523
LM5Z16VT1G	15.3	16.2	17.1	2	200	SOD-523
LM5Z18VT1G	16.8	18	19.1	2	200	SOD-523
LM5Z20VT1G	18.8	20	21.2	2	200	SOD-523
LM5Z22VT1G	20.8	22	23.3	2	200	SOD-523

Part Number	Zener Voltage				P <sub>D</sub> (mW)	Package
	V <sub>Z</sub> (V)			@ I <sub>ZT</sub>		
	Min	Nom	Max	mA		
LM5Z24VT1G	22.8	24.2	25.6	2	200	SOD-523
LM5Z27VT1G	25.1	27	28.9	2	200	SOD-523
LM5Z30VT1G	28	30	32	2	200	SOD-523
LM5Z33VT1G	31	33	35	2	200	SOD-523
LM5Z36VT1G	34	36	38	2	200	SOD-523
LM5Z39VT1G	37	39	41	2	200	SOD-523
LM5Z43VT1G	40	43	46	1	200	SOD-523
LM5Z47VT1G	44	47	50	1	200	SOD-523
LM5Z51VT1G	48	51	54	1	200	SOD-523
LM5Z56VT1G	52	56	60	1	200	SOD-523
LM5Z62VT1G	58	62	66	1	200	SOD-523
LM5Z68VT1G	64	68	72	1	200	SOD-523
LM5Z75VT1G	70	75	79	1	200	SOD-523
BZT52C2V4S	2.2	2.4	2.6	5	200	SOD-323
BZT52C2V7S	2.5	2.7	2.9	5	200	SOD-323
BZT52C3V0S	2.8	3	3.2	5	200	SOD-323
BZT52C3V3S	3.1	3.3	3.5	5	200	SOD-323
BZT52C3V6S	3.4	3.6	3.8	5	200	SOD-323
BZT52C3V9S	3.7	3.9	4.1	5	200	SOD-323
BZT52C4V3S	4	4.3	4.6	5	200	SOD-323
BZT52C4V7S	4.4	4.7	5	5	200	SOD-323
BZT52C5V1S	4.8	5.1	5.4	5	200	SOD-323
BZT52C5V6S	5.2	5.6	6	5	200	SOD-323
BZT52C6V2S	5.8	6.2	6.6	5	200	SOD-323
BZT52C6V8S	6.4	6.8	7.2	5	200	SOD-323
BZT52C7V5S	7	7.5	7.9	5	200	SOD-323
BZT52C8V2S	7.7	8.2	8.7	5	200	SOD-323
BZT52C9V1S	8.5	9.1	9.6	5	200	SOD-323
BZT52C10S	9.4	10	10.6	5	200	SOD-323
BZT52C11S	10.4	11	11.6	5	200	SOD-323
BZT52C12S	11.4	12	12.7	5	200	SOD-323
BZT52C13S	12.4	13.25	14.1	5	200	SOD-323
BZT52C15S	14.3	15	15.8	5	200	SOD-323
BZT52C16S	15.3	16.2	17.1	5	200	SOD-323
BZT52C18S	16.8	18	19.1	5	200	SOD-323
BZT52C20S	18.8	20	21.2	5	200	SOD-323
BZT52C22S	20.8	22	23.3	5	200	SOD-323
BZT52C24S	22.8	24.2	25.6	5	200	SOD-323
BZT52C27S	25.1	27	28.9	2	200	SOD-323
BZT52C30S	28	30	32	2	200	SOD-323
BZT52C33S	31	33	35	2	200	SOD-323
BZT52C36S	34	36	38	2	200	SOD-323
BZT52C39S	37	39	41	2	200	SOD-323
BZT52C43S	40	43	46	2	200	SOD-323
BZT52C47S	44	47	50	2	200	SOD-323
BZT52C51S	48	51	54	2	200	SOD-323
LM3Z56VT1G	52	56	60	2	200	SOD-323
LM3Z62VT1G	58	62	66	2	200	SOD-323
LM3Z68VT1G	64	68	72	2	200	SOD-323
LM3Z75VT1G	70	75	79	2	200	SOD-323

Part Number	Zener Voltage				P <sub>D</sub> (mW)	Package
	V <sub>Z</sub> (V)			@ I <sub>ZT</sub>		
	Min	Nom	Max	mA		
MMSZ5225	2.85	3	3.15	20	500	SOD-123FL
MMSZ5226	3.13	3.3	3.47	20	500	SOD-123FL
MMSZ5227	3.42	3.6	3.78	20	500	SOD-123FL
MMSZ5228	3.7	3.9	4.1	20	500	SOD-123FL
MMSZ5229	4.08	4.3	4.52	20	500	SOD-123FL
MMSZ5230	4.46	4.7	4.94	20	500	SOD-123FL
MMSZ5231	4.84	5.1	5.36	20	500	SOD-123FL
MMSZ5232	5.32	5.6	5.88	20	500	SOD-123FL
MMSZ5233	5.7	6	6.3	20	500	SOD-123FL
MMSZ5234	5.89	6.2	6.51	20	500	SOD-123FL
MMSZ5235	6.46	6.8	7.14	20	500	SOD-123FL
MMSZ5236	7.13	7.5	7.88	20	500	SOD-123FL
MMSZ5237	7.79	8.2	8.61	20	500	SOD-123FL
MMSZ5238	8.26	8.7	9.14	20	500	SOD-123FL
MMSZ5240	9.5	10	10.5	20	500	SOD-123FL
MMSZ5241	10.45	11	11.55	20	500	SOD-123FL
MMSZ5242	11.4	12	12.6	20	500	SOD-123FL
MMSZ5243	12.35	13	13.65	9.5	500	SOD-123FL
MMSZ5244	14	13.3	14.7	9	500	SOD-123FL
MMSZ5245	15	14.25	15.75	8.5	500	SOD-123FL
MMSZ5246	15.2	16	16.8	7.8	500	SOD-123FL
MMSZ5247	16.1	17	17.85	7.4	500	SOD-123FL
MMSZ5248	17.1	18	18.9	7	500	SOD-123FL
MMSZ5249	18.05	19	19.05	6.6	500	SOD-123FL
MMSZ5250	19	20	21	6.2	500	SOD-123FL
MMSZ5251	20.9	22	23.1	5.6	500	SOD-123FL
MMSZ5252	22.8	24	25.2	5.2	500	SOD-123FL
MMSZ5253	25	23.75	26.35	5	500	SOD-123FL
MMSZ5254	25.65	27	28.35	4.6	500	SOD-123FL
MMSZ5255	26.6	28	29.4	4.5	500	SOD-123FL
MMSZ5256	28.5	30	31.5	4.2	500	SOD-123FL
MMSZ5257	31.35	33	34.65	3.8	500	SOD-123FL
MMSZ5258	34.2	36	37.8	3.4	500	SOD-123FL
MMSZ5259	37.05	39	40.95	3.2	500	SOD-123FL
MMSZ5260	40.85	43	45.15	3	500	SOD-123FL
MMSZ5261	44.65	47	49.35	2.7	500	SOD-123FL
MMSZ5262	48.45	51	53.55	2.5	500	SOD-123FL
MMSZ5263	53.2	56	58.8	2.2	500	SOD-123FL
MMSZ5264	57	60	63	2.1	500	SOD-123FL
MMSZ5265	58.9	62	65	2	500	SOD-123FL
MMSZ5266	64.6	68	71.4	1.8	500	SOD-123FL
MMSZ5267	71.25	75	78.75	1.7	500	SOD-123FL
SMA4728A	3.14	3.3	3.47	76	1000	SMA
SMA4729A	3.42	3.6	3.78	69	1000	SMA
SMA4730A	3.71	3.9	4.1	64	1000	SMA
SMA4731A	4.09	4.3	4.52	58	1000	SMA
SMA4732A	4.47	4.7	4.94	53	1000	SMA
SMA4733A	4.85	5.1	5.36	49	1000	SMA
SMA4734A	5.32	5.6	5.88	45	1000	SMA
SMA4735A	5.89	6.2	6.51	41	1000	SMA

Part Number	Zener Voltage				P <sub>D</sub> (mW)	Package
	V <sub>Z</sub> (V)			@ I <sub>ZT</sub>		
	Min	Nom	Max	mA		
SMA4736A	6.46	6.8	7.14	37	1000	SMA
SMA4737A	7.13	7.5	7.88	34	1000	SMA
SMA4738A	7.79	8.2	8.61	31	1000	SMA
SMA4739A	8.65	9.1	9.56	28	1000	SMA
SMA4740A	9.5	10	10.5	25	1000	SMA
SMA4741A	10.45	11	11.55	23	1000	SMA
SMA4742A	11.4	12	12.6	21	1000	SMA
SMA4743A	12.35	13	13.65	19	1000	SMA
SMA4744A	14.25	15	15.75	17	1000	SMA
SMA4745A	15.2	16	16.8	15.5	1000	SMA
SMA4746A	17.1	18	18.9	14	1000	SMA
SMA4747A	19	20	21	12.5	1000	SMA
SMA4748A	20.9	22	23.1	11.5	1000	SMA
SMA4749A	22.8	24	25.2	10.5	1000	SMA
SMA4750A	25.65	27	28.35	9.5	1000	SMA
SMA4751A	28.5	30	31.5	8.5	1000	SMA
SMA4752A	31.35	33	34.65	7.5	1000	SMA
SMA4753A	34.2	36	37.8	7	1000	SMA
SMA4754A	37.05	39	40.95	6.5	1000	SMA
SMA4755A	40.85	43	45.15	6	1000	SMA
SMA4756A	44.65	47	49.35	5.5	1000	SMA
SMA4757A	48.45	51	53.55	5	1000	SMA
SMA4758A	53.2	56	58.8	4.5	1000	SMA
SMA4759A	58.9	62	65.1	4	1000	SMA
SMA4760A	64.6	68	71.4	3.7	1000	SMA
SMA4761A	71.25	75	78.75	3.3	1000	SMA
SMA4762A	77.9	82	86.1	3	1000	SMA
SMA4763A	86.45	91	95.55	3.8	1000	SMA
SMA4764A	95	100	105	3.5	1000	SMA
SMB5333A	3.14	3.3	3.47	380	5000	SMB
SMB5334A	3.42	3.6	3.78	350	5000	SMB
SMB5335A	3.71	3.9	4.1	320	5000	SMB
SMB5336A	4.09	4.3	4.52	290	5000	SMB
SMB5337A	4.47	4.7	4.94	260	5000	SMB
SMB5338A	4.85	5.1	5.36	240	5000	SMB
SMB5339A	5.32	5.6	5.88	220	5000	SMB
SMB5340A	5.7	6	6.3	200	5000	SMB
SMB5341A	5.89	6.2	6.51	200	5000	SMB
SMB5342A	6.46	6.8	7.14	175	5000	SMB
SMB5343A	7.13	7.5	7.88	175	5000	SMB
SMB5344A	7.79	8.2	8.61	150	5000	SMB
SMB5345A	8.27	8.7	9.14	150	5000	SMB
SMB5346A	8.65	9.1	9.56	150	5000	SMB
SMB5347A	9.5	10	10.5	125	5000	SMB
SMB5348A	10.45	11	11.55	125	5000	SMB
SMB5349A	11.4	12	12.6	100	5000	SMB
SMB5350A	12.35	13	13.65	100	5000	SMB
SMB5351A	13.3	14	14.7	100	5000	SMB
SMB5352A	14.25	15	15.75	75	5000	SMB
SMB5353A	15.2	16	16.8	75	5000	SMB

Part Number	Zener Voltage				P <sub>D</sub> (mW)	Package
	V <sub>Z</sub> (V)			@ I <sub>ZT</sub>		
	Min	Nom	Max	mA		
SMB5354A	16.15	17	17.85	70	5000	SMB
SMB5355A	17.1	18	18.9	65	5000	SMB
SMB5356A	18.5	19	19.95	65	5000	SMB
SMB5357A	19	20	21	65	5000	SMB
SMB5358A	20.9	22	23.1	50	5000	SMB
SMB5359A	22.8	24	25.2	50	5000	SMB
SMB5360A	23.75	25	26.25	50	5000	SMB
SMB5361A	25.65	27	28.35	50	5000	SMB
SMB5362A	26.6	28	29.4	50	5000	SMB
SMB5363A	28.5	30	31.5	40	5000	SMB
SMB5364A	31.35	33	34.65	40	5000	SMB
SMB5365A	34.2	36	37.8	30	5000	SMB
SMB5366A	37.05	39	40.95	30	5000	SMB
SMB5367A	40.85	43	45.15	30	5000	SMB
SMB5368A	44.65	47	49.35	25	5000	SMB
SMB5369A	48.45	51	53.55	25	5000	SMB
SMB5370A	53.2	56	58.8	20	5000	SMB
SMB5371A	57	60	63	20	5000	SMB
SMB5372A	58.9	62	65.1	20	5000	SMB
SMB5373A	64.6	68	71.4	20	5000	SMB
SMB5374A	71.25	75	78.75	20	5000	SMB
SMB5375A	77.9	82	86.1	15	5000	SMB
SMB5376A	82.65	87	91.35	15	5000	SMB
SMB5377A	86.45	91	95.55	15	5000	SMB
SMB5378A	95	100	105	12	5000	SMB
SMB5379A	104.5	110	115.5	12	5000	SMB
SMB5380A	114	120	126	10	5000	SMB
SMB5381A	123.5	130	136.5	10	5000	SMB
SMB5382A	133	140	147	8	5000	SMB
SMB5383A	142.5	150	157.5	8	5000	SMB
SMB5384A	152	160	168	8	5000	SMB
SMB5385A	161.5	170	178.5	8	5000	SMB
SMB5386A	171	180	189	5	5000	SMB
SMB5387A	180.5	190	199.5	5	5000	SMB
SMB5388A	190	200	210	5	5000	SMB
LMBZ5221BLT1G	2.28	2.4	2.52	20	225	SOT-23
LMBZ5222BLT1G	2.37	2.5	2.63	20	225	SOT-23
LMBZ5223BLT1G	2.56	2.7	2.84	20	225	SOT-23
LMBZ5224BLT1G	2.66	2.8	2.94	20	225	SOT-23
LMBZ5225BLT1G	2.85	3	3.15	20	225	SOT-23
LMBZ5226BLT1G	3.13	3.3	3.47	20	225	SOT-23
LMBZ5227BLT1G	3.42	3.6	3.78	20	225	SOT-23
LMBZ5228BLT1G	3.7	3.9	4.1	20	225	SOT-23
LMBZ5229BLT1G	4.08	4.3	4.52	20	225	SOT-23
LMBZ5230BLT1G	4.46	4.7	4.94	20	225	SOT-23
LMBZ5231BLT1G	4.84	5.1	5.36	20	225	SOT-23
LMBZ5232BLT1G	5.32	5.6	5.88	20	225	SOT-23
LMBZ5233BLT1G	5.7	6	6.3	20	225	SOT-23
LMBZ5234BLT1G	5.89	6.2	6.51	20	225	SOT-23
LMBZ5235BLT1G	6.46	6.8	7.14	20	225	SOT-23

Part Number	Zener Voltage				P <sub>D</sub> (mW)	Package
	V <sub>Z</sub> (V)			@ I <sub>ZT</sub>		
	Min	Nom	Max	mA		
LMBZ5236BLT1G	7.12	7.5	7.88	20	225	SOT-23
LMBZ5237BLT1G	7.79	8.2	8.61	20	225	SOT-23
LMBZ5238BLT1G	8.26	8.7	9.14	20	225	SOT-23
LMBZ5239BLT1G	8.64	9.1	9.56	20	225	SOT-23
LMBZ5240BLT1G	9.5	10	10.5	20	225	SOT-23
LMBZ5241BLT1G	10.4	11	11.55	20	225	SOT-23
LMBZ5242BLT1G	11.4	12	12.6	20	225	SOT-23
LMBZ5243BLT1G	12.35	13	13.65	9.5	225	SOT-23
LMBZ5244BLT1G	13.3	14	14.7	9	225	SOT-23
LMBZ5245BLT1G	14.25	15	15.75	8.5	225	SOT-23
LMBZ5246BLT1G	15.2	16	16.8	7.8	225	SOT-23
LMBZ5247BLT1G	16.15	17	17.85	7.4	225	SOT-23
LMBZ5248BLT1G	17.1	18	18.9	7	225	SOT-23
LMBZ5249BLT1G	18.05	19	19.95	6.6	225	SOT-23
LMBZ5250BLT1G	19	20	21	6.2	225	SOT-23
LMBZ5251BLT1G	20.9	22	23.1	5.6	225	SOT-23
LMBZ5252BLT1G	22.8	24	25.2	5.2	225	SOT-23
LMBZ5253BLT1G	23.75	25	26.25	5	225	SOT-23
LMBZ5254BLT1G	25.65	27	28.35	4.6	225	SOT-23
LMBZ5255BLT1G	26.6	28	29.4	4.5	225	SOT-23
LMBZ5256BLT1G	28.5	30	31.5	4.2	225	SOT-23
LMBZ5257BLT1G	31.35	33	34.65	3.8	225	SOT-23
LMBZ5258BLT1G	34.2	36	37.8	3.4	225	SOT-23
LMBZ5259BLT1G	37.05	39	40.95	3.2	225	SOT-23
LMBZ5260BLT1G	40.85	43	45.15	3	225	SOT-23
LMBZ5261BLT1G	44.65	47	49.35	2.7	225	SOT-23
LMBZ5262BLT1G	48.45	51	53.55	2.5	225	SOT-23
LMBZ5263BLT1G	53.2	56	58.8	2.2	225	SOT-23
LMBZ5264BLT1G	57	60	63	2.1	225	SOT-23
LMBZ5265BLT1G	58.9	62	65.1	2	225	SOT-23
LMBZ5266BLT1G	64.6	68	71.4	1.8	225	SOT-23
LMBZ5267BLT1G	71.25	75	78.75	1.7	225	SOT-23
LMBZ5268BLT1G	77.9	82	86.1	1.5	225	SOT-23
LMBZ5269BLT1G	82.65	87	91.35	1.4	225	SOT-23
LMBZ5270BLT1G	86.45	91	95.55	1.4	225	SOT-23

# Inductor 电感

## Inductor 的简介

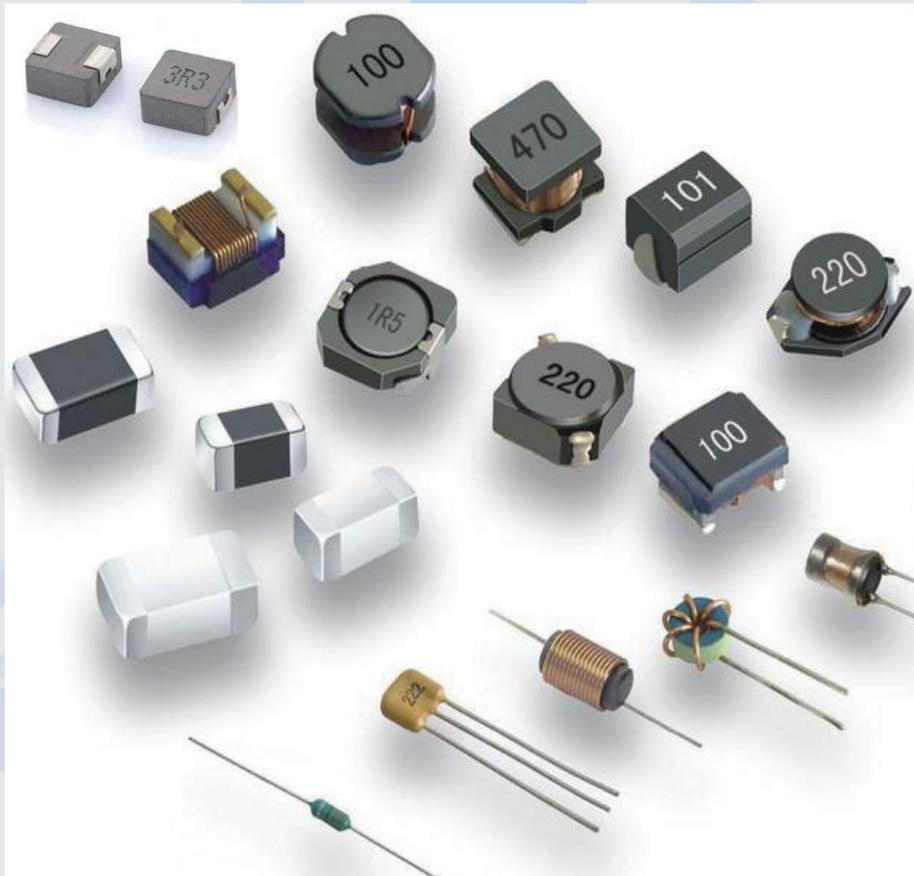
电感的基本作用有滤波、振荡、延迟、陷波等，形象地说就是“通直流，阻交流”。所谓通直流就是指在直流电路中，电感的作用就相当于一根导线，不起任何作用；阻交流就是在交流电路中，电感会表现出阻碍作用，即感抗，整个电路的电流会变小，即电感线圈对交流有限流作用。它与电阻器或电容器能组成高通或低通滤波器、移相电路及谐振电路等。

电感器的应用很多，生活中有日光灯、节能灯等，工业上有扼流器、电抗器等。

## Inductor 的简介

Inductor, also called a coil, choke, or reactor, is a passive two-terminal electrical component that stores energy in a magnetic field when electric current flows through it. An inductor typically consists of an insulated wire wound into a coil around a core.

The basic functions of inductance include filtering, oscillation, delay, notch, etc., which is visually called "through DC, resisting AC".



Molding一体成型 Part No.	Dimension (mm)	Inductance ( $\mu$ H)	Test Freq.	DCR Typical (m $\Omega$ )	DCR Mx (m $\Omega$ )	Isat Typical (A)	Isat Mx (A)	Irms Typical (A)	Irms Mx(A)
LMI201210A-2R2M	2.0*1.2*1.0	2.2	2MHZ,0.2V	166	176	1.7	1.6	1.5	1.4
LMI201608A-R47M	2.0*1.6*0.8	0.47	2MHZ,0.2V	42	51	3.6	3.3	3.4	3.1
LMI201608A-1R0M	2.0*1.6*0.8	1.0	2MHZ,0.2V	76	87	2.8	2.5	2.7	2.3
LMI201610A-R24M	2.0*1.6*1.0	0.24	2MHZ,0.2V	21	27	7.0	5.6	4.8	3.9
LMI201610A-R47M	2.0*1.6*1.0	0.47	2MHZ,0.2V	33	42	4.8	3.9	4.2	3.5
LMI201610A-R68M	2.0*1.6*1.0	0.68	2MHZ,0.2V	43	56	4.0	3.2	3.4	2.7
LMI201610A-1R0M	2.0*1.6*1.0	1.0	2MHZ,0.2V	53	65	3.6	2.9	3.1	2.5
LMI201610A-2R2M	2.0*1.6*1.0	2.2	2MHZ,0.2V	112	135	2.7	2.4	2.2	1.8
LMI252010A-R24M	2.5*2.0*1.0	0.24	2MHZ,0.2V	13	18	9.5	8.0	6.5	5.5
LMI252010A-R33M	2.5*2.0*1.0	0.33	2MHZ,0.2V	18	24	8.0	6.5	5.5	4.8
LMI252010A-R47M	2.5*2.0*1.0	0.47	2MHZ,0.2V	27	35	6.2	5.0	4.5	3.9
LMI252010A-R68M	2.5*2.0*1.0	0.68	2MHZ,0.2V	32	40	5.6	4.5	4.2	3.7
LMI252010A-1R0M	2.5*2.0*1.0	1.0	2MHZ,0.2V	45	53	4.6	3.7	3.5	3.0
LMI252010A-2R2M	2.5*2.0*1.0	2.2	2MHZ,0.2V	87	97	3.0	2.5	2.5	2.2
LMI252012A-R24M	2.5*2.0*1.2	0.24	2MHZ,0.2V	11.5	15	10.5	9.0	7.3	6.2
LMI252012A-R33M	2.5*2.0*1.2	0.33	2MHZ,0.2V	14.5	18	10	8.5	6.4	5.8
LMI252012A-R47M	2.5*2.0*1.2	0.47	2MHZ,0.2V	28	33	7.0	5.6	4.5	3.8
LMI252012A-R68M	2.5*2.0*1.2	0.68	2MHZ,0.2V	30	36	6.2	5.0	4.4	3.8
LMI252012A-1R0M	2.5*2.0*1.2	1.0	2MHZ,0.2V	35	42	5.5	4.4	4.1	3.6
LMI252012A-2R2M	2.5*2.0*1.2	2.2	2MHZ,0.2V	74	83	3.7	3.0	2.9	2.5
LMI04020-R47M	4*4*2.0	0.47	100KHZ,0.5V	NA	14	9.5	NA	7.0	NA
LMI04020-R68M	4*4*2.0	0.68	100KHZ,0.5V	NA	21	8.0	NA	5.2	NA
LMI04020-1R0M	4*4*2.0	1.0	100KHZ,0.5V	NA	27	7.0	NA	4.5	NA
LMI04020-2R2M	4*4*2.0	2.2	100KHZ,0.5V	NA	58	5.0	NA	3.0	NA
LMI04020-3R3M	4*4*2.0	3.3	100KHZ,0.5V	NA	87	4.0	NA	2.5	NA
LMI04020-4R7M	4*4*2.0	4.7	100KHZ,0.5V	NA	126	3.0	NA	2.2	NA
LMI04020-6R8M	4*4*2.0	6.8	100KHZ,0.5V	NA	135	2.5	NA	2.0	NA
LMI04020-100M	4*4*2.0	10	100KHZ,0.5V	NA	258	2.0	NA	1.6	NA
LMI05018-R47M	5*5*1.8	0.47	100KHZ,0.5V	NA	9.0	15.5	NA	10.5	NA
LMI05018-1R0M	5*5*1.8	1.0	100KHZ,0.5V	NA	17	9.0	NA	8.0	NA
LMI05018-2R2M	5*5*1.8	2.2	100KHZ,0.5V	NA	35	6.5	NA	5.0	NA
LMI05018-3R3M	5*5*1.8	3.3	100KHZ,0.5V	NA	58	5.0	NA	4.5	NA
LMI05018-4R7M	5*5*1.8	4.7	100KHZ,0.5V	NA	85	4.0	NA	3.5	NA
LMI05018-6R8M	5*5*1.8	6.8	100KHZ,0.5V	NA	120	3.4	NA	2.8	NA
LMI05018-100M	5*5*1.8	10	100KHZ,0.5V	NA	155	3.0	NA	2.5	NA
LMI05020-R47M	5*5*2.0	0.47	100KHZ,0.5V	NA	9.0	15.5	NA	10.5	NA
LMI05020-1R0M	5*5*2.0	1.0	100KHZ,0.5V	NA	30	7.0	NA	6.0	NA
LMI05020-2R2M	5*5*2.0	2.2	100KHZ,0.5V	NA	45	6.0	NA	4.0	NA
LMI05020-3R3M	5*5*2.0	3.3	100KHZ,0.5V	NA	60	5.5	NA	3.5	NA
LMI05020-4R7M	5*5*2.0	4.7	100KHZ,0.5V	NA	90	5.0	NA	3.0	NA
LMI05020-6R8M	5*5*2.0	6.8	100KHZ,0.5V	NA	125	4.5	NA	2.8	NA
LMI05020-100M	5*5*2.0	10	100KHZ,0.5V	NA	180	4.0	NA	2.3	NA
LMI05030-R47M	5*5*3.0	0.47	100KHZ,0.5V	NA	8.0	14.0	NA	10.0	NA
LMI05030-R68M	5*5*3.0	0.68	100KHZ,0.5V	NA	12	14.0	NA	8.0	NA
LMI05030-1R0M	5*5*3.0	1.0	100KHZ,0.5V	NA	15	11.0	NA	7.0	NA
LMI05030-2R2M	5*5*3.0	2.2	100KHZ,0.5V	NA	35	8.0	NA	5.0	NA
LMI05030-3R3M	5*5*3.0	3.3	100KHZ,0.5V	NA	46	7.0	NA	4.5	NA
LMI05030-4R7M	5*5*3.0	4.7	100KHZ,0.5V	NA	60	6.0	NA	4.0	NA
LMI05030-6R8M	5*5*3.0	6.8	100KHZ,0.5V	NA	110	5.0	NA	3.0	NA
LMI05030-100M	5*5*3.0	10	100KHZ,0.5V	NA	126	4.5	NA	1.5	NA
LMI06024-R22M	6*6*2.4	0.22	100KHZ,0.5V	NA	3.2	34.0	NA	21.0	NA
LMI06024-R33M	6*6*2.4	0.33	100KHZ,0.5V	NA	4.1	24.5	NA	18.0	NA
LMI06024-R47M	6*6*2.4	0.47	100KHZ,0.5V	NA	5.1	22.0	NA	15.0	NA
LMI06024-1R0M	6*6*2.4	1.0	100KHZ,0.5V	NA	13.5	16.0	NA	9.0	NA
LMI06024-2R2M	6*6*2.4	2.2	100KHZ,0.5V	NA	28	14.0	NA	7.0	NA
LMI06024-3R3M	6*6*2.4	3.3	100KHZ,0.5V	NA	39	10.0	NA	5.5	NA

Molding一体成型 Part No.	Dimension (mm)	Inductance ( $\mu$ H)	Test Freq.	DCR Typical (m $\Omega$ )	DCR Mx (m $\Omega$ )	Isat Typical (A)	Isat Mx (A)	Irms Typical (A)	Irms Mx(A)
LMI06024-4R7M	6*6*2.4	4.7	100KHZ,0.5V	NA	50	10.0	NA	5.0	NA
LMI06024-6R8M	6*6*2.4	6.8	100KHZ,0.5V	NA	70	6.0	NA	4.0	NA
LMI06024-100M	6*6*2.4	10	100KHZ,0.5V	NA	101	4.0	NA	3.1	NA
LMI06030-4R7M	6*6*3.0	0.47	100KHZ,0.5V	NA	4.1	20.0	NA	18.0	NA
LMI06030-6R8M	6*6*3.0	0.68	100KHZ,0.5V	NA	5.3	17.0	NA	16.0	NA
LMI06030-1R0M	6*6*3.0	1.0	100KHZ,0.5V	NA	7.4	15.0	NA	12.0	NA
LMI06030-2R2M	6*6*3.0	2.2	100KHZ,0.5V	NA	15	10.0	NA	8.0	NA
LMI06030-3R3M	6*6*3.0	3.3	100KHZ,0.5V	NA	22	9.5	NA	6.5	NA
LMI06030-4R7M	6*6*3.0	4.7	100KHZ,0.5V	NA	33	6.5	NA	5.5	NA
LMI06030-6R8M	6*6*3.0	6.8	100KHZ,0.5V	NA	50	6.0	NA	4.5	NA
LMI06030-100M	6*6*3.0	10	100KHZ,0.5V	NA	68	5.5	NA	4.0	NA
LMH10040-R22M	10*10*4.0	0.22	100KHZ,0.5V	NA	0.6	45.0	NA	35.0	NA
LMH10040-R47M	10*10*4.0	0.47	100KHZ,0.5V	NA	1.2	38.0	NA	33.0	NA
LMH10040-R68M	10*10*4.0	0.68	100KHZ,0.5V	NA	1.55	30.0	NA	27.0	NA
LMH10040-1R0M	10*10*4.0	1.0	100KHZ,0.5V	NA	3.1	26.0	NA	20.0	NA
LMH10040-2R2M	10*10*4.0	2.2	100KHZ,0.5V	NA	7.0	16.0	NA	14.0	NA
LMH10040-3R3M	10*10*4.0	3.3	100KHZ,0.5V	NA	13.2	12.0	NA	11.0	NA
LMH10040-4R7M	10*10*4.0	4.7	100KHZ,0.5V	NA	16.5	12.0	NA	9.0	NA
LMH10040-6R8M	10*10*4.0	6.8	100KHZ,0.5V	NA	25.0	10.0	NA	6.0	NA
LMH10040-100M	10*10*4.0	10	100KHZ,0.5V	NA	30.0	7.0	NA	6.5	NA
LMH10040-150M	10*10*4.0	15	100KHZ,0.5V	NA	45.0	6.0	NA	6.25	NA
LMH10040-220M	10*10*4.0	22	100KHZ,0.5V	NA	72.0	5.5	NA	5.0	NA
LMH12050-R47M	12*12*5.0	0.47	100KHZ,0.5V	NA	1.2	46.0	NA	37.0	NA
LMH12050-1R0M	12*12*5.0	1.0	100KHZ,0.5V	NA	2.5	37.0	NA	29.0	NA
LMH12050-4R7M	12*12*5.0	4.7	100KHZ,0.5V	NA	11.5	16.0	NA	11.0	NA
LMH12050-6R8M	12*12*5.0	6.8	100KHZ,0.5V	NA	22.0	14.0	NA	9.0	NA
LMH12050-100M	12*12*5.0	10	100KHZ,0.5V	NA	35.0	13.0	NA	7.0	NA
LMH12060-100M	12*12*6.0	10	100KHZ,0.5V	NA	20.7	12.5	NA	10.0	NA
LMH12060-150M	12*12*6.0	15	100KHZ,0.5V	NA	29.0	9.0	NA	6.0	NA
LMH12060-220M	12*12*6.0	22	100KHZ,0.5V	NA	39.5	7.5	NA	5.0	NA
LMH12060-330M	12*12*6.0	33	100KHZ,0.5V	NA	75.0	6.0	NA	4.0	NA

Winding绕线 Part No.	Dimension (mm)	Inductance ( $\mu$ H)	Test Freq.	DCR ( $\Omega$ ) $\pm 30\%$	Isat Typical (A)	Isat Max (A)	Irms Typical (A)	Irms Max (A)
LNR201612-R47M	2.0*1.6*1.2	0.47	1MHZ,0.2V	0.051	2.70	2.43	2.30	2.07
LNR201612-R68M	2.0*1.6*1.2	0.68	1MHZ,0.2V	0.074	2.20	1.98	2.00	1.80
LNR201612-6R8M	2.0*1.6*1.2	6.8	1MHZ,0.2V	0.465	0.82	0.73	0.78	0.70
LNR252010-R47M	2.5*2.0*1.0	0.47	1MHZ,0.2V	0.045	2.80	2.52	2.30	2.07
LNR252010-1R0M	2.5*2.0*1.0	1	1MHZ,0.2V	0.066	1.98	1.78	2.05	1.84
LNR252010-4R7M	2.5*2.0*1.0	4.7	1MHZ,0.2V	0.285	0.92	0.82	0.95	0.85
LNR252010-100M	2.5*2.0*1.0	10	1MHZ,0.2V	0.535	0.60	0.54	0.70	0.63
LNR252010-150M	2.5*2.0*1.0	15	1MHZ,0.2V	0.810	0.50	0.45	0.55	0.49
LNR252010-220M	2.5*2.0*1.0	22	1MHZ,0.2V	1.200	0.40	0.36	0.44	0.39
LNR252012-R50M	2.5*2.0*1.2	0.5	1MHZ,0.2V	0.028	3.50	3.15	3.00	2.70
LNR252012-1R0M	2.5*2.0*1.2	1	1MHZ,0.2V	0.050	2.50	2.25	2.40	2.16
LNR252012-2R2M	2.5*2.0*1.2	2.2	1MHZ,0.2V	0.080	1.80	1.62	1.80	1.62
LNR252012-3R3M	2.5*2.0*1.2	3.3	1MHZ,0.2V	0.130	1.45	1.30	1.50	1.35
LNR252012-4R7M	2.5*2.0*1.2	4.7	1MHZ,0.2V	0.190	1.10	0.99	1.10	0.99
LNR252012-6R8M	2.5*2.0*1.2	6.8	1MHZ,0.2V	0.300	0.95	0.85	0.80	0.72
LNR252012-100M	2.5*2.0*1.2	10	1MHZ,0.2V	0.385	0.88	0.79	0.70	0.63
LNR252012-150M	2.5*2.0*1.2	15	1MHZ,0.2V	0.570	0.68	0.61	0.62	0.55
LNR252012-220M	2.5*2.0*1.2	22	1MHZ,0.2V	0.810	0.55	0.49	0.53	0.47
LNR303010-2R2M	3.0*3.0*1.0	2.2	1MHZ,0.2V	0.100	1.50	1.35	1.40	1.26
LNR303010-4R7M	3.0*3.0*1.0	4.7	1MHZ,0.2V	0.205	1.00	0.90	0.95	0.85
LNR303010-6R8M	3.0*3.0*1.0	6.8	1MHZ,0.2V	0.310	0.87	0.78	0.85	0.76
LNR303010-100M	3.0*3.0*1.0	10	1MHZ,0.2V	0.430	0.64	0.57	0.63	0.56
LNR303010-150M	3.0*3.0*1.0	15	1MHZ,0.2V	0.625	0.56	0.50	0.55	0.49
LNR303010-220M	3.0*3.0*1.0	22	1MHZ,0.2V	0.870	0.47	0.42	0.46	0.41
LNR303010-470M	3.0*3.0*1.0	47	1MHZ,0.2V	1.750	0.29	0.26	0.28	0.25
LNR303012-2R2M	3.0*3.0*1.2	2.2	1MHZ,0.2V	0.092	2.10	1.89	2.00	1.80
LNR303012-3R3M	3.0*3.0*1.2	3.3	1MHZ,0.2V	0.13	1.84	1.65	1.80	1.62
LNR303012-4R7M	3.0*3.0*1.2	4.7	1MHZ,0.2V	0.18	1.56	1.40	1.52	1.36
LNR303012-6R8M	3.0*3.0*1.2	6.8	1MHZ,0.2V	0.25	1.32	1.18	1.30	1.17
LNR303012-100M	3.0*3.0*1.2	10	1MHZ,0.2V	0.42	1.06	0.95	1.00	0.90
LNR303012-150M	3.0*3.0*1.2	15	1MHZ,0.2V	0.56	0.82	0.73	0.80	0.72
LNR303012-220M	3.0*3.0*1.2	22	1MHZ,0.2V	0.86	0.64	0.57	0.62	0.55
LNR303012-470M	3.0*3.0*1.2	47	1MHZ,0.2V	1.82	0.49	0.44	0.43	0.38
LNR303015-R47M	3.0*3.0*1.5	0.47	1MHZ,0.2V	0.036	4.7	4.23	4.0	3.60
LNR303015-1R0M	3.0*3.0*1.5	1.0	1MHZ,0.2V	0.054	3.4	3.06	3.0	2.70
LNR303015-2R2M	3.0*3.0*1.5	2.2	1MHZ,0.2V	0.090	2.3	2.07	2.0	1.80
LNR303015-3R3M	3.0*3.0*1.5	3.3	1MHZ,0.2V	0.125	1.9	1.71	1.8	1.62
LNR303015-4R7M	3.0*3.0*1.5	4.7	1MHZ,0.2V	0.170	1.58	1.42	1.5	1.36
LNR303015-6R8M	3.0*3.0*1.5	6.8	1MHZ,0.2V	0.235	1.34	1.20	1.3	1.17
LNR303015-100M	3.0*3.0*1.5	10	1MHZ,0.2V	0.360	1.06	0.95	1.0	0.90
LNR303015-150M	3.0*3.0*1.5	15	1MHZ,0.2V	0.550	0.9	0.81	0.8	0.72
LNR303015-220M	3.0*3.0*1.5	22	1MHZ,0.2V	0.770	0.76	0.68	0.7	0.58
LNR303015-330M	3.0*3.0*1.5	33	1MHZ,0.2V	0.930	0.65	0.58	0.6	0.54
LNR303015-470M	3.0*3.0*1.5	47	1MHZ,0.2V	1.500	0.52	0.46	0.4	0.37
LNR303015-101M	3.0*3.0*1.5	100	100KHZ,1V	2.700	0.36	0.32	0.3	0.27
LNR404018-1R0M	4.0*4.0*1.8	1	100KHZ,1V	0.032	4.1	3.69	2.8	2.52
LNR404018-2R2M	4.0*4.0*1.8	2.2	100KHZ,1V	0.060	2.80	2.52	2.50	2.25
LNR404018-3R3M	4.0*4.0*1.8	3.3	100KHZ,1V	0.070	2.20	1.98	2.10	1.89
LNR404018-4R7M	4.0*4.0*1.8	4.7	100KHZ,1V	0.090	2.00	1.80	1.70	1.53
LNR404018-6R8M	4.0*4.0*1.8	6.8	100KHZ,1V	0.110	1.60	1.44	1.50	1.35
LNR404018-100M	4.0*4.0*1.8	10	100KHZ,1V	0.170	1.40	1.26	1.20	1.08
LNR404018-150M	4.0*4.0*1.8	15	100KHZ,1V	0.250	1.00	0.90	1.00	0.90
LNR404018-220M	4.0*4.0*1.8	22	100KHZ,1V	0.350	0.90	0.81	0.85	0.76
LNR404018-330M	4.0*4.0*1.8	33	100KHZ,1V	0.530	0.80	0.72	0.70	0.63
LNR404018-470M	4.0*4.0*1.8	47	100KHZ,1V	0.720	0.70	0.63	0.56	0.50
LNR404018-680M	4.0*4.0*1.8	68	100KHZ,1V	1.000	0.56	0.50	0.45	0.40

Winding绕线 Part No.	Dimension (mm)	Inductance ( $\mu$ H)	Test Freq.	DCR ( $\Omega$ ) $\pm 30\%$	Isat Typical (A)	Isat Max (A)	Irms Typical (A)	Irms Max (A)
LNR404018-101M	4.0*4.0*1.8	100	100KHZ,1V	1.500	0.46	0.41	0.38	0.34
LNR404018-151M	4.0*4.0*1.8	150	100KHZ,1V	2.500	0.35	0.31	0.30	0.27
LNR404018-221M	4.0*4.0*1.8	220	100KHZ,1V	4.000	0.28	0.25	0.23	0.20
LNR404026-3R3M	4.0*4.0*2.6	3.3	100KHZ,1V	0.045	2.50	2.25	2.50	2.25
LNR404026-4R7M	4.0*4.0*2.6	4.7	100KHZ,1V	0.06	1.80	1.62	1.80	1.62
LNR404026-220M	4.0*4.0*2.6	22	100KHZ,1V	0.23	0.86	0.77	1.00	0.90
LNR505020-1R0M	5.0*5.0*2.0	1.0	100KHZ,1V	0.021	5.10	4.59	4.00	3.60
LNR505020-2R2M	5.0*5.0*2.0	2.2	100KHZ,1V	0.035	3.40	3.06	3.20	2.88
LNR505020-3R3M	5.0*5.0*2.0	3.3	100KHZ,1V	0.048	3.00	2.70	2.80	2.52
LNR505020-4R7M	5.0*5.0*2.0	4.7	100KHZ,1V	0.06	2.20	1.98	2.20	1.98
LNR505020-6R3M	5.0*5.0*2.0	6.8	100KHZ,1V	0.09	2.00	1.80	1.80	1.62
LNR505020-100M	5.0*5.0*2.0	10	100KHZ,1V	0.12	1.60	1.44	1.60	1.44
LNR505020-150M	5.0*5.0*2.0	15	100KHZ,1V	0.19	1.30	1.17	1.20	1.08
LNR505020-220M	5.0*5.0*2.0	22	100KHZ,1V	0.26	1.00	0.90	1.00	0.90
LNR505020-330M	5.0*5.0*2.0	33	100KHZ,1V	0.46	0.80	0.72	0.75	0.67
LNR505020-470M	5.0*5.0*2.0	47	100KHZ,1V	0.58	0.65	0.58	0.65	0.58
LNR505040-1R0M	5.0*5.0*4.0	1	100KHZ,1V	0.014	7.50	6.75	4.6	4.14
LNR505040-2R2M	5.0*5.0*4.0	2.2	100KHZ,1V	0.021	5.70	5.13	3.7	3.33
LNR505040-3R3M	5.0*5.0*4.0	3.3	100KHZ,1V	0.026	4.80	4.32	3.5	3.15
LNR505040-4R7M	5.0*5.0*4.0	4.7	100KHZ,1V	0.032	4.20	3.78	3.2	2.88
LNR505040-6R3M	5.0*5.0*4.0	6.8	100KHZ,1V	0.050	3.30	2.97	2.4	2.16
LNR505040-100M	5.0*5.0*4.0	10	100KHZ,1V	0.060	2.80	2.52	2.2	1.98
LNR505040-150M	5.0*5.0*4.0	15	100KHZ,1V	0.090	2.30	2.07	1.8	1.62
LNR505040-220M	5.0*5.0*4.0	22	100KHZ,1V	0.135	1.80	1.62	1.4	1.26
LNR505040-270M	5.0*5.0*4.0	27	100KHZ,1V	0.180	1.60	1.44	1.2	1.08
LNR505040-330M	5.0*5.0*4.0	33	100KHZ,1V	0.190	1.50	1.35	1.1	0.99
LNR505040-470M	5.0*5.0*4.0	47	100KHZ,1V	0.310	1.20	1.08	0.9	0.81
LNR505040-680M	5.0*5.0*4.0	68	100KHZ,1V	0.540	1.00	0.90	0.78	0.7
LNR505040-101M	5.0*5.0*4.0	100	100KHZ,1V	0.800	0.70	0.60	0.6	0.5
LNR606020-1R0T	6.0*6.0*2.0	1.0	100KHZ,1V	0.019	6.20	5.58	4.10	3.69
LNR606020-2R2M	6.0*6.0*2.0	2.2	100KHZ,1V	0.034	4.20	3.78	3.20	2.88
LNR606020-3R3M	6.0*6.0*2.0	3.3	100KHZ,1V	0.040	3.20	2.88	2.70	2.43
LNR606020-4R7M	6.0*6.0*2.0	4.7	100KHZ,1V	0.058	2.50	2.25	2.20	1.98
LNR606020-6R3M	6.0*6.0*2.0	6.8	100KHZ,1V	0.085	2.20	1.98	1.80	1.62
LNR606020-100M	6.0*6.0*2.0	10	100KHZ,1V	0.125	2.00	1.80	1.60	1.44
LNR606020-150M	6.0*6.0*2.0	15	100KHZ,1V	0.190	1.30	1.17	1.30	1.17
LNR606020-220M	6.0*6.0*2.0	22	100KHZ,1V	0.260	1.10	0.99	1.10	0.99
LNR606028-1R0M	6.0*6.0*2.8	1.0	100KHZ,1V	0.013	7.6	6.84	5.20	4.68
LNR606028-2R2M	6.0*6.0*2.8	2.2	100KHZ,1V	0.02	5.4	4.86	4.00	3.60
LNR606028-3R3M	6.0*6.0*2.8	3.3	100KHZ,1V	0.028	4.3	3.87	3.50	3.15
LNR606028-4R7M	6.0*6.0*2.8	4.7	100KHZ,1V	0.038	3.7	3.33	3.20	2.88
LNR606028-6R8M	6.0*6.0*2.8	6.8	100KHZ,1V	0.05	3.1	2.79	2.70	2.43
LNR606028-100M	6.0*6.0*2.8	10	100KHZ,1V	0.065	2.5	2.25	2.30	2.07
LNR606028-150M	6.0*6.0*2.8	15	100KHZ,1V	0.095	2	1.8	1.80	1.62
LNR606028-220M	6.0*6.0*2.8	22	100KHZ,1V	0.135	1.6	1.44	1.50	1.35
LNR606028-330M	6.0*6.0*2.8	33	100KHZ,1V	0.22	1.3	1.17	1.40	1.26
LNR606028-470M	6.0*6.0*2.8	47	100KHZ,1V	0.32	1.1	0.99	1.00	0.90
LNR606028-680M	6.0*6.0*2.8	68	100KHZ,1V	0.42	0.98	0.88	0.90	0.81
LNR606028-101M	6.0*6.0*2.8	100	100KHZ,1V	0.60	0.82	0.73	0.80	0.72
LNR606045-1R0M	6.0*6.0*4.5	1.0	100KHZ,1V	0.012	12.20	10.98	6.50	5.85
LNR606045-2R2M	6.0*6.0*4.5	2.2	100KHZ,1V	0.0184	8.80	7.92	5.00	4.50
LNR606045-3R3M	6.0*6.0*4.5	3.3	100KHZ,1V	0.024	7.50	6.75	4.30	3.87
LNR606045-4R7M	6.0*6.0*4.5	4.7	100KHZ,1V	0.031	6.70	6.03	3.50	3.15
LNR606045-6R8M	6.0*6.0*4.5	6.8	100KHZ,1V	0.040	5.30	4.77	3.20	2.88
LNR606045-8R2M	6.0*6.0*4.5	8.2	100KHZ,1V	0.053	4.60	4.10	2.90	2.60
LNR606045-100M	6.0*6.0*4.5	10	100KHZ,1V	0.057	4.50	4.05	2.70	2.43

Winding绕线 Part No.	Dimension (mm)	Inductance ( $\mu$ H)	Test Freq.	DCR ( $\Omega$ ) $\pm 30\%$	Isat Typical (A)	Isat Max (A)	Irms Typical (A)	Irms Max (A)
LNR606045-150M	6.0*6.0*4.5	15	100KHZ,1V	0.080	3.40	3.06	2.20	1.98
LNR606045-180M	6.0*6.0*4.5	18	100KHZ,1V	0.100	3.10	2.79	1.80	1.62
LNR606045-220M	6.0*6.0*4.5	22	100KHZ,1V	0.125	3.00	2.70	1.90	1.71
LNR606045-270M	6.0*6.0*4.5	27	100KHZ,1V	0.160	2.50	2.25	1.30	1.17
LNR606045-330M	6.0*6.0*4.5	33	100KHZ,1V	0.165	2.30	2.07	1.40	1.26
LNR606045-470M	6.0*6.0*4.5	47	100KHZ,1V	0.25	1.90	1.71	1.20	1.08
LNR606045-680M	6.0*6.0*4.5	68	100KHZ,1V	0.33	1.60	1.44	1.00	0.90
LNR606045-101M	6.0*6.0*4.5	100	100KHZ,1V	0.50	1.30	1.17	0.80	0.72
LNR606045-221M	6.0*6.0*4.5	220	100KHZ,1V	1.30	0.82	0.73	0.38	0.34
LNR606045-331M	6.0*6.0*4.5	330	100KHZ,1V	1.80	0.70	0.63	0.35	0.31
LNR606045-102M	6.0*6.0*4.5	1000	100KHZ,1V	6.00	0.40	0.36	0.22	0.19
LNR808040-1R0T	8.0*8.0*4.0	1.0	100KHZ,1V	0.0750	13.00	11.70	7.95	7.15
LNR808040-2R2M	8.0*8.0*4.0	2.2	100KHZ,1V	0.0150	9.20	8.28	7.20	6.48
LNR808040-3R3M	8.0*8.0*4.0	3.3	100KHZ,1V	0.0150	7.50	6.75	6.00	5.40
LNR808040-4R7M	8.0*8.0*4.0	4.7	100KHZ,1V	0.0180	6.00	5.40	5.50	4.95
LNR808040-6R8M	8.0*8.0*4.0	6.8	100KHZ,1V	0.0250	5.40	4.86	5.10	4.59
LNR808040-100M	8.0*8.0*4.0	10	100KHZ,1V	0.0380	4.30	3.87	3.80	3.42
LNR808040-220M	8.0*8.0*4.0	22	100KHZ,1V	0.0800	2.80	2.52	2.60	2.34
LNR808040-330M	8.0*8.0*4.0	33	100KHZ,1V	0.1100	2.30	2.07	2.00	1.80
LNR808040-470M	8.0*8.0*4.0	47	100KHZ,1V	0.1600	1.90	1.71	1.75	1.57

Common Choke 共模 Part No.	Z	RDC	IDC	Rated Voltage	Withstandin g Voltage	Insulation Resistance	Toleranc e	Test Freq.	Application
	( $\Omega$ )	( $\Omega$ )Max.	(mA)	(Vdc)	(Vdc)	(M $\Omega$ )(min)	( $\pm\%$ )	(MHz)	
LDW11T-670M	67	0.25	300	50	125	100	20	100	USB 2.0 IEEE1394b LVDS Applications
LDW11T-900M	90	0.3	250	50	125	100	20	100	
LDW11T-121M	120	0.4	200	50	125	100	20	100	
LDW21T-670M	67	0.25	400	50	125	10	20	100	
LDW21T-900M	90	0.35	330	50	125	10	20	100	
LDW21T-121M	120	0.3	400	50	125	10	20	100	
LDW21T-181M	180	0.35	330	50	125	10	20	100	
LDW21T-221M	220	0.35	310	50	125	10	20	100	
LDW21T-261M	260	0.4	300	50	125	10	20	100	
LDW21T-371M	370	0.45	280	50	125	10	20	100	
LDW21T-501M	500	0.55	170	50	125	10	20	100	
LDW21T-671M	670	0.6	140	50	125	10	20	100	
LDW21T-901M	900	0.6	80	50	125	10	20	100	
LDW31T-900M	90	0.3	370	50	125	10	20	100	
LDW31T-121M	120	0.3	370	50	125	10	20	100	
LDW31T-221M	220	0.4	320	50	125	10	20	100	
LDW31T-261M	260	0.5	310	50	125	10	20	100	
LDW31T-601M	600	0.8	260	50	125	10	20	100	
LDW31T-102M	1000	1	230	50	125	10	20	100	
LDW31T-222M	2200	1.2	200	50	125	10	20	100	
LDW111T-220Y	22	0.2	400	50	125	100	25	100	HDMI, USB 3.0
LDW111T-600Y	60	0.4	250	50	125	100	25	100	
LDW111T-900Y	90	0.3	250	50	125	100	25	100	
LDW121T-500Y	50	0.2	500	50	125	10	25	100	
LDW121T-670Y	67	0.3	500	50	125	10	25	100	
LDW121T-900Y	90	0.3	500	50	125	10	25	100	
LDW121T-121Y	120	0.35	330	50	125	10	25	100	

Common Choke 共模 Part No.	L	Test Freq.	Z	Test Freq.	RDC	I <sub>rms</sub>	Rated Voltage	Withstanding Voltage	Insulation Resistance
	( $\mu$ H) $\pm$ 30%		( $\Omega$ )Min(Typ)	(MHz)	( $\Omega$ )Max.	(mA)Max.	(Vdc)Max.	(Vdc)	(M $\Omega$ )Min.
LDW43T-113T	11	100kHz,0.1V	300(600)	10	0.6	250	50	125	10
LDW43T-223T	22	100kHz,0.1V	500(1200)	10	1	200	50	125	10
LDW43T-513T	51	100kHz,0.1V	1000(2800)	10	1	200	50	125	10
LDW43T-104T	100	100kHz,0.1V	2000(5800)	10	2	150	50	125	10

Application cross TDK/ACT45B, for CAN bus, FlexRay

Common Choke 共模 Part No.	L	Test Freq.	RDC	I <sub>rms</sub>	Rated Voltage	Withstanding Voltage	Insulation Resistance	Tolerance
	( $\mu$ H) $\pm$ 30%		( $\Omega$ )Max.	(mA)Max.	(Vdc)Max.	(Vdc)	(M $\Omega$ )Min.	( $\pm$ )
LDW43M-113T	11	100kHz,0.1V	0.5	360	50	125	10	30
LDW43M-223T	22	100kHz,0.1V	0.6	310	50	125	10	30
LDW43M-513T	51	1MHz,0.2V	1	230	50	125	10	30
LDW43M-104T	100	1MHz,0.2V	2	200	50	125	10	30

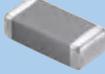
Application cross Murata/DLW43SH, for CAN bus, FlexRay

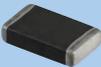
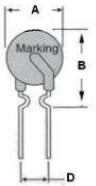
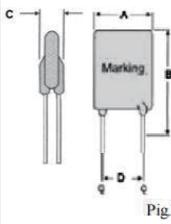
Common Choke 共模 Part No.	Impedance	Test Freq.	RDC	I <sub>rms</sub>	Application
	( $\Omega$ )		(m $\Omega$ )Max.	(mA)Max.	
LDW0735T-501	500	100MHZ,0.2V	15	4000	cross TDK/ACM70V, for CAN bus, FlexRay
LDW0945T-501	500	100MHZ,0.2V	10	5000	cross TDK/ACM90V, for CAN bus, FlexRay
LDW1206T-501	500	100MHZ,0.2V	5.8	8000	cross TDK/ACM12V, for CAN bus, FlexRay

# 封装外形尺寸明细表

序号	贴片外形图	封装名称	尺寸(长*宽*高) mm	序号	贴片外形图	封装名称	尺寸(长*宽*高) mm
1		DFN0603 0201 TSSLP-2-4	0.6*0.3*0.2	15		DFN3020P6	3.0*2.0*0.5
2		DFN1006 0402 SOD-882 TSSLP-2-20	1.0*0.6*0.5	16		DFN2010P8	2.0*1.0*0.5
3		DFN1410P2	1.4*0.95*0.5	17		DFN1714	1.7*1.4*0.5
4		DFN1610-2	1.6*1.0*0.5	18		DFN3810-9	3.8*1.0*0.5
5		DFN2020-2 DFN2020SP2	2.0*2.0*0.5	19		DFN2510P10 SLP2510P8 DFN-10 DSON-10	2.5*1.0*0.5
6		DFN1006-3L 0402-3 SOT-883	1.0*0.6*0.39	20		DFN2626P10	2.6*2.6*0.5
7		DFN2020-3	2.0*2.0*0.65	21		DFN3020-10	3.0*2.0*0.6
8		DFN1308P5	1.3*0.8*0.4	22		DFN4120P10	4.1*2.0*0.55
9		DFN2010P5	2.0*1.0*0.5	23		DFN2514	2.5*1.4*0.55
10		DFN1109MP6	1.1*0.9*0.5	24		DFN3014	3.0*1.35*0.9
11		DFN1210-6	1.2*1*0.58	25		DFN3313	3.3*1.3*0.5
12		DFN1510P6 DFN1510 US0N06	1.5*1.0*0.5	26		DFN3314	3.3*1.4*0.55
13		DFN1616P6 DFN1616-6	1.55*1.55*0.55	27		DFN3.3X3.3 DFN3X3EP	3.3*3.3*0.75
14		DFN2020-6	2.0*2.0*0.75	28		DFN5X6-8L	6.1*5.15*1

序号	贴片外形图	封装名称	尺寸(长*宽*高) mm	序号	贴片外形图	封装名称	尺寸(长*宽*高) mm
29		SOD-923 VMN-2 0402	1.0*0.6*0.39	45		SOT-523 EMT-3 SOT-416 SOT-663 SC-75 SC-90 SS-MINI-3 SMPAK SOT-490FL ESM SSM SC-89	1.6*1.6*0.75
30		SOD-723 VMD-2	1.4*0.6*0.52	46		SOT-323 UMT3 SC-70 USM S-MINI-3 UMT-3 CMPAK	2.2*2.3*0.9
31		SOD-523 0603 SC-79 ESMD-2 UFP ESC SS-MINI-2	1.6*0.8*0.6	47		SOT-23 SST3 Micro3 TO-236AB SC-59 SOT-346 SMT-3 MPAK MINI-3 S-MINI MICRO-3	2.9*2.4*1.0
32		SOD-323 0805 SC-76 UMD-2 URP USC	2.5*1.25*0.9	48		SOT-143	2.4*2.9*0.8
33		SOD-123 DO-219AB SC-77 SMD-2 PMDU	3.7*1.6*1.2	49		SOT-553 EMT5 SOT-665	1.6*1.6*0.55
34		SOD-123FL SOD-123SL DO-219AB	3.5*1.7*0.9	50		SOT-353 SC70-5 UMT5 SC-88A	2.0*2.1*0.95
35		SMAF	4.4*2.4*0.9	51		SOT-23-5 SMT5 SC59-5 SOT25 SC-74A TSOP5	2.9*2.8*1.15
36		SMA DO-214AC SOD106	5.0*2.5*2.1	52		SOT-563 EMT6 SOT-666	1.6*1.6*0.55
37		SMBF	5.1*3.5*1.1	53		SOT-363 SC70-6 UMT6 SC-88	2.0*2.1*0.95
38		SMB DO-214AA	5.5*3.5*2.3	54		SOT-23-6 SMT6 SC-59-6 SC-74 SOT-457 TSOP-6 SOT26	2.9*2.8*1.15
39		SMB-3	1.4*0.6*0.52	55		MSOP-8 TSSOP-8	4.9*3.0*1.1
40		SMC DO-214AB	7.94*5.84*2.23	56		SOP-8	6.0*4.9*1.4
41		TO-277	3.9*6.4*1.1	57		MSOP-10	4.9*3.0*1.1
42		DO-218AB	10*15*5	58		SO-14	6.0*8.6*1.5
43		LL34 SOD80 DO-213AA MINIMELF	Φ1.45*3.5	59		SOP-16	6.0*10*1.5
44		SOT-723 VMT-3 3SS-MINI-S VSM TSFP-3	1.2*1.2*0.5	60		IBS	3.2*3.2*1.4

序号	贴片外形图	封装名称	尺寸(长*宽*高) mm	序号	贴片外形图	封装名称	尺寸(长*宽*高) mm
61		MBS TO-26PAA TO-269AA	4.5*6.4*2.3	77		SMD3216	3.2*1.6*1.6
62		MBF Mini DB	4.6*6.6*1.2			SMD3225	3.2*2.5*2.5
63		ABS	4.9*6.2*1.3			SMD4532	4.5*3.2*2.7
64		DF-S	8.32*10.4*2.35			SMD5050	5.0*5.4*5.4
65		SOT-89 SOT-89-3L	4.5*4.0*1.5	78		2R-5S	Φ5.0*4.2
66		SOT-223 SO2-223-3L	6.3*6.9*1.6			3R-5S	Φ5.0*7.6
67		TO-220-3L TO-220 TO-220F	10.0*16.9*4.5			2R-8S	Φ8.3*6
68		TO-252-2L TO-252 DPAK	6.6*10.0*2.3	80		3R-5	7.6*5.0*5.0
69		TO-251	6.6*16.4*2.3			3R-6	Φ6.0*8.0
70		TO-263-2L TO-263	10*15*4.47			3R-8	Φ8.0*10.0
71		DO-41	5.2*2.35*0.8	81		34S	40*40 脚距25.4
		DO-15	3.0*0.8*7.6	82		40D	Φ45 脚距25.4
		DO-201 DO-201AD	9.0*5.3*1.25			53D	Φ45 脚距25.4
		R6 P600	9.0*1.25*9.1	85		2220	5.7*5.0
2R-5	Φ5.0*6.0	3220	8.0*5.0				
75		2R-8	Φ8.0*6.0				

序号	贴片外形图	封装名称	尺寸(长*宽*高) mm	序号	贴片外形图	封装名称	尺寸(长*宽*高) mm
83		05D	Φ7.5 脚距5.0	85		0603	1.6*0.8*0.5
		07D	Φ9 脚距5.0			0805	2.1*1.4*0.6
		10D	Φ13 脚距7.5			1206	3.5*1.8*0.55
		14D	Φ16 脚距7.5			1210	3.4*1.8*1
		20D	Φ23 脚距10.0			1812	4.73*3.41*1.1
		20N	Φ24 脚距7.5			2018	5*4.5*0.7
		25D	Φ28 脚距10			2920	7.98*5.44*1.2
		32D	Φ38 脚距25.0				
84		0201	0.6*0.3	86	  	HL06	6.4-11.7
		402	1.0*0.6			HL16	5.5~24
		0603	1.6*0.8			HL30	7.4-23.5
		0805	2.0*1.2			HL60	5.0-28.5
		1206	3.2*1.6			HL130	7.4-27.0
		1210	3.2*2.5			HL250	7.4-26.0
		1812	4.5*3.2			HL600	15.00

# EMC电路保护方案目录



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1.2	双USB2.0 静电保护方案	7.1	DVI接口静电保护方案
1.3	USB3.0 静电保护单颗方案	8.1	VGA接口静电保护方案
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2.4	百兆网分立式防雷保护方案	14.1	IO接口静电保护方案
2.5	百兆网集成式防雷保护方案	15.1	Keyboard按键静电保护方案
2.6	百兆网分立式静电保护方案	16.1	CAN 接口静电保护方案
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2.10	POE室外防雷保护方案	17.1	麦克风静电保护方案
3.1	模拟视频静电保护方案	18.1	RS485 静电保护方案
4.1	MIPI屏静电保护方案	18.2	RS485 浪涌保护方案
5.1	LVDS 静电保护方案	18.3	RS485 接口隔离与静电保护方案
6.1	HDMI2.0 静电保护方案	18.4	RS485 浪涌滤波保护方案
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6.3	HDMI1.3 1.4静电滤波保护方案	19.1	RS422静电保护方案

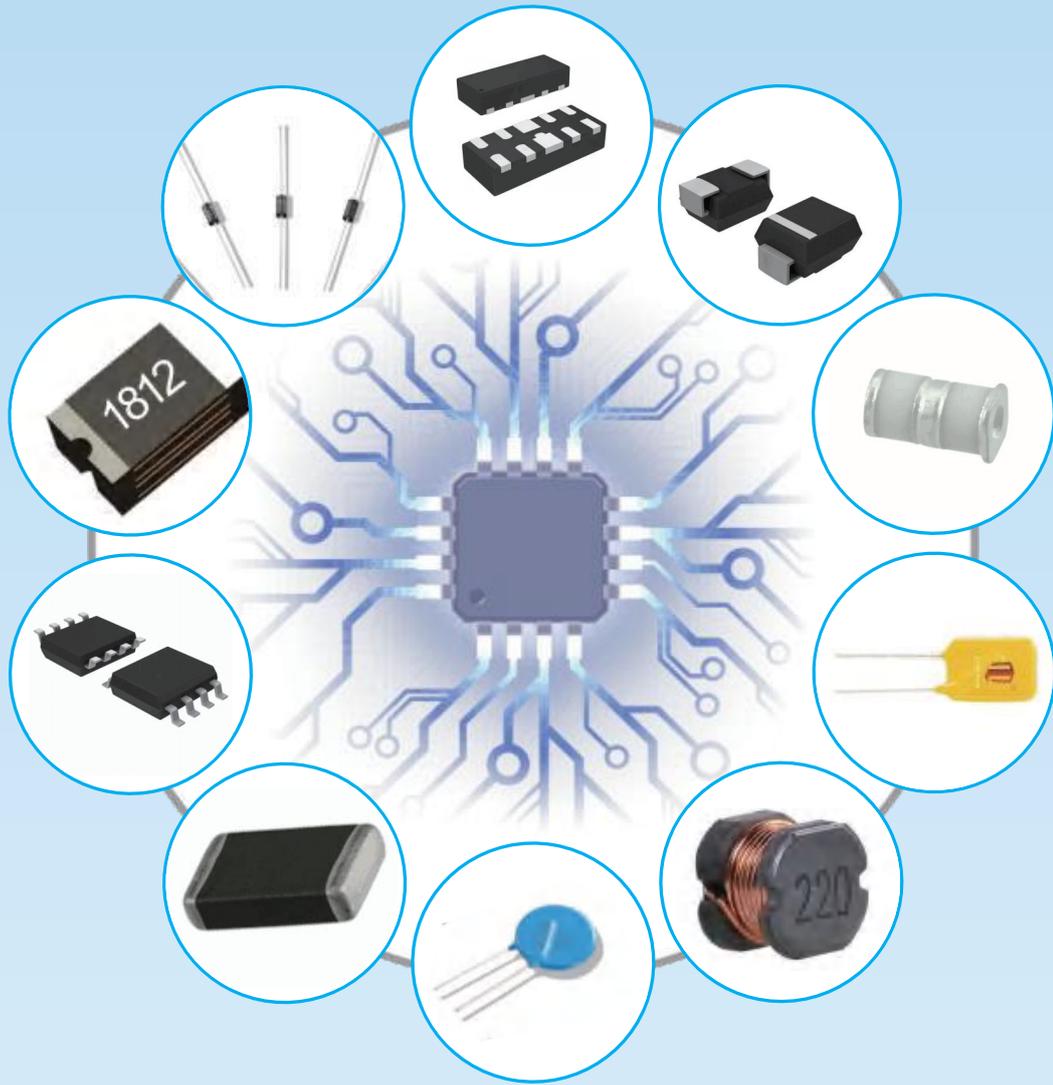
19.2	RS422数据线带电源静电浪涌保护方案	24.1	I2C接口隔离与静电保护方案
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# 公司部分合作伙伴



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