

53D Series

产品简介

压敏电阻的本身是由氧化锌颗粒组成的矩阵结构。颗粒之间的晶界类似双向 PN 结的电气特性，当低电压时，这些晶界处于高阻抗状态，当电压高时，又会处于击穿状态，是一种非线性器件。



应用领域:

通讯基站电源

铁路信号电源

1000V 以下低压配电设备、控制设备等等。

楼宇配电

电焊机

Product Profile

The body of varistor is a matrix structure composed of zinc oxide particles. The grain boundaries between particles are similar to the electrical characteristics of bidirectional PN junctions. When the voltage is low, these grain boundaries are in the high impedance state, and when the voltage is high, they will be in the breakdown state, which is a kind of non-linear device.

Application

Communication base station power supply

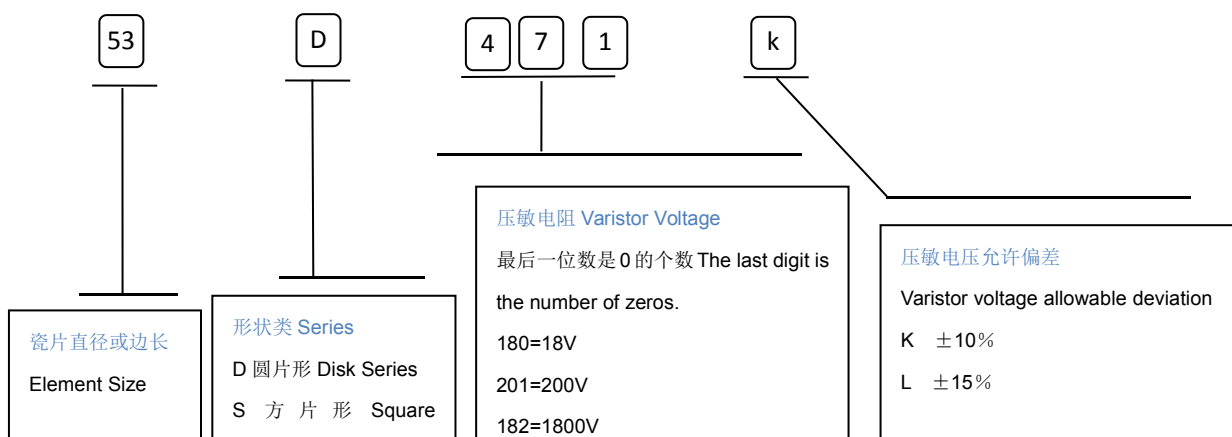
Railway signal power supply

Low voltage distribution equipment, control equipment, etc. below 1000V

Building distribution

Electric welder

产品料号代码 HOW TO ORDER



按冲击 8/20 μ s 浪涌电流分类 Classification According to 8/20 μ s Surge Current

一、普通型、KJ 加强型

型号 Part NO.	压敏电压	最大允许 使用电压	K 普通型			KJ 加强型		
	V1mA (V)	AC (V)	I _{max} (8/20 μ s) (A)	I _n (15 次) (8/20 μ s) (A)	能量 (10/1000 μ s) (J)	I _{max} (8/20 μ s) (A)	I _n (15 次) (8/20 μ s) (A)	能量 (10/1000 μ s) (J)
5D	82-750	50-400	400	150	2.5-18	800	250	3.5-33
7D	82-820	50-400	1200	500	6.0-43	1750	1000	8.4-7.1
10D	82-1800	50-1000	2500	1500	13-185	3500	1500	18-259
14D	82-1800	50-1000	4500	3000	26-378	6000	3000	31-450
20D	82-1800	50-1000	6500	3000	48-632	10000	5000	67-850
5D	18-68	11-40	100		0.5-2.1	250	150	0.7-2.9
7D	18-68	11-40	250		1.3-5.0	500	250	1.8-7.0
10D	18-68	11-40	500		2.8-11	1000	500	3.9-15
14D	18-68	11-40	1000		5.7-21	2000	1000	6.8-25
20D	18-68	11-40	2000		11-46	3000	1000	13-55
符合国际及国家标准			IEC61051-1 IEC61051-2 IEC61051-2-2 CSA-C22.2 UL1449	GB/T10193 GB/T10194 GBT10195 No.269.5-17		包含左栏, 并增加以下标准: IEC60950-1: 2013/Annex Q GB/4943.1-2011 GB8898-2011 UL1449		

二、KH 加强型(整机标准)

1.符合整机标准: IEC61000-4-5,GB/T17626.5《电磁兼容试验和测量技术浪涌(冲击)抗扰度试验》, 在使用 AC 电压的 4 个相位角, 每个相位角正负个冲击 5 次, 总计 40 次冲击;

2.冲击峰值

5D:1KV/0.5KA

7D:2KV/1KA

10D:4KV/2KA

14D:6KV/3KA

20D:10KV/5KA

3.电压规格: V1mA \geq 430V, 也即 431 及以上规格;

4.组合波: 开路为电压波 1.2/50 μ s, 短路为电流波 8/20 μ s, 叠加 AC 电压

三、KX 定制型

1.雷击要求高于 KH 级, 比如

A.一次冲击的峰值(I_{max})要求高于 KH, 举例: 14D 产品, 要求 I_{max} \geq 10KA

B.浪涌冲击次数(I_n)要求冲击次数多, 举例: 14D 产品, 要求 6KV/3KA 组合波冲击 100 次、500 次.....

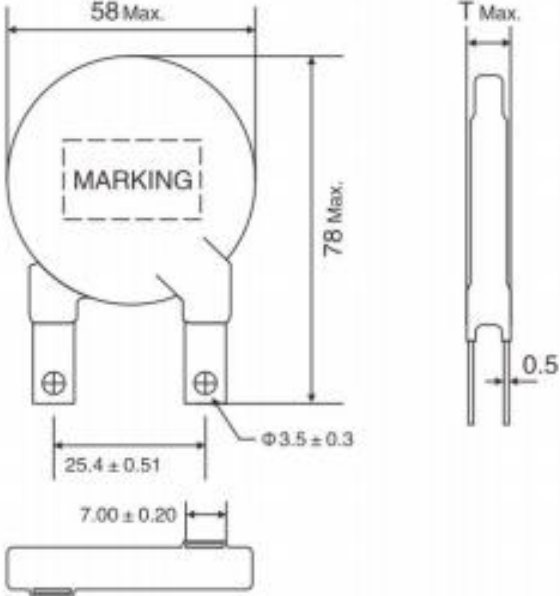
2.小型化要求: 10D 替代 14D, 14D 替代 20D, 20D 替代 32D.....适合 SPD 产品应用

53D 系列 电气参数 53D Series Electrical Parameters

型号规格 Part NO	压敏电压 Varistor Voltage		最大允许使用电压 Maximum allowable voltage		最大限制电压 Maximum Limited Voltage	通流容量 Withstanding Surge current (8/20 μ s) times		静态功率 Rated Wattage	能量耐量 Energy (2ms)
	0.1mA		AC	DC	500A	I max	I n	(W)	J
	(V)		(V)		(V)	(A)			
53D201K	200	185-225	130	170	340	70	30	1.6	330
53D221K	220	198-242	140	180	360	70	30	1.6	355
53D241K	240	216-264	150	200	395	70	30	1.6	380
53D271K	270	243-297	175	225	455	70	30	1.6	430
53D301K	300	270-330	190	250	500	70	30	1.6	455
53D331K	330	297-363	210	275	550	70	30	1.6	480
53D361K	360	324-396	230	300	595	70	30	1.6	510
53D391K	390	351-429	250	320	650	70	30	1.6	550
53D431K	430	387-473	275	350	710	70	30	1.6	635
53D471K	470	423-517	300	385	775	70	30	1.6	640
53D511K	510	459-561	320	415	845	70	30	1.6	640
53D561K	560	504-616	350	460	925	70	30	1.6	645
53D621K	620	558-682	385	505	1025	70	30	1.6	655
53D681K	680	612-748	420	560	1120	70	30	1.6	710
53D751K	750	675-825	460	615	1240	70	30	1.6	790
53D781K	780	702-858	485	640	1290	70	30	1.6	820
53D821K	820	738-902	510	670	1355	70	30	1.6	860
53D911K	910	819-1001	550	745	1500	70	30	1.6	950
53D102K	1000	900-1100	625	825	1650	70	30	1.6	990
53D122K	1200	1080-1320	750	980	1980	70	30	1.6	1015
53D152K	1500	1350-1650	900	1220	2475	70	30	1.6	1140
53D182K	1800	1620-1980	1000	1465	2970	70	30	1.6	1370

注：压敏电压测试电流 DC1Ma 工作环境温度：-45℃~+85℃ 加强型温度：-45℃~+125℃ 压敏电压温度变化率：<0.05/℃

Note: Voltage-sensitive voltage test current DC1Ma working environment temperature: - 45 ~85, intensified temperature: - 45 +125, temperature change rate of voltage-sensitive voltage: < 0.05/.

产品外形 Product shape	系列 Series	压敏电压 Varistor voltage	厚度 T max
	53D	201-271	7.5
		301-621	9.5
		681-911	11.2
		102-122	12.8
		142-182	16

Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.