10D Series

产品简介

压敏电阻的本体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：

抑制消费类电子产品及工业用电子设备主电源所窜入的浪涌电流。如 LED 照明、电度表、开关电源、排插等。

通讯等有线网络设备窜入的浪涌电流。

房舍装置以及瓦斯和油类设施上所装置的电子器材的浪涌保护

抑制电子线路内发生的浪涌

照相器材用于限压开关

Product Profile

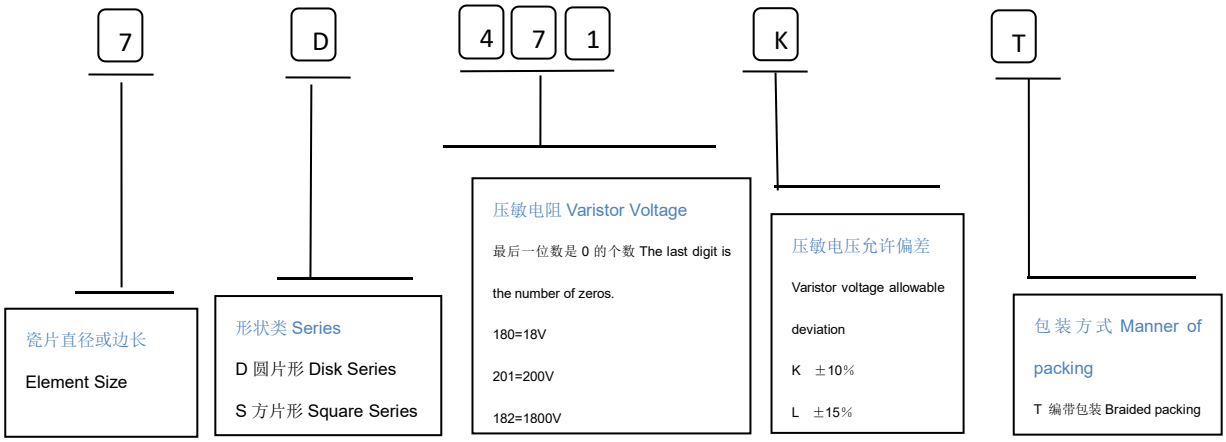
The body of varistor is a matrix structure composed of zinc oxide particles. The grain boundaries between particles are similar to the electrical characteristics of bidirectional PN junctions. When the voltage is low, these grain boundaries are in the high impedance state, and when the voltage is high,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

Application

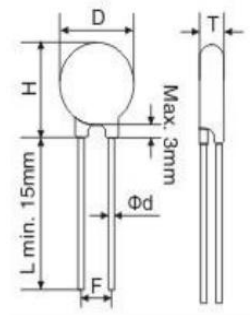
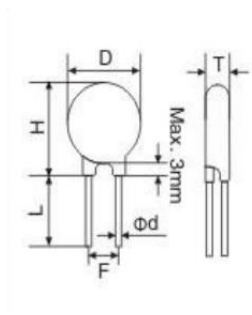
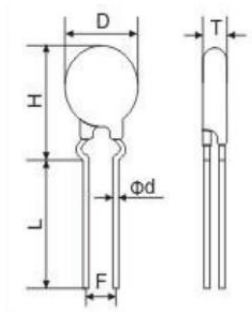
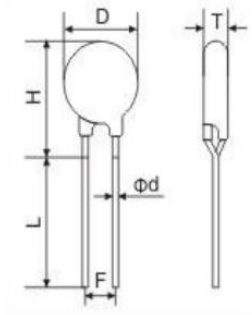
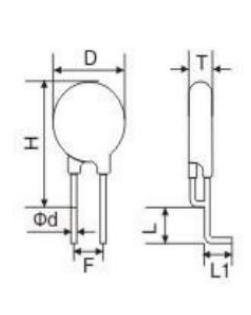
Suppresses surge current from the main power supply of consumer electronics and industrial electronic equipment. Such as LED lighting, watt-hour meter, switching power supply, layout and so on.

Surge protection of electronic equipment on building installations and gas and oil installations Suppression of Surges in Electronic Circuits Photographic equipment for voltage limiting switches

产品料号代码 HOW TO ORDER



产品外形 Product Shape

Bulk Straight 标准外形	Cutting Straight 切短脚	Out Forming 外弯脚	Y-Forming Y 型脚	Cutting Bending 折脚
				

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口 K 的详解 Detailed explanation of

口中的内容 The content of the blank box	K		KJ		KH		KH+
产品级别 Product Level	普通型 conventional type		加强型 Reinforced type		超强型 Superstrong type		定制型 Customized
性能参数 property parameter	1 次脉冲最大电流 Withstanding surge Current (Imax) (A)	电压冲击 15 次 Impulse voltage15 Times (1.2/50μs) (V)	1 次脉冲最大电流 Withstanding surge Current (Imax) (A)	电流冲击 15 次 Impulse current 15 Times （8/20μs） (A)	1 次脉冲最大电流 Withstanding surge Current (Imax) (A)	电压冲击 40 次 Impulse voltage40 Times （1.2/50μs） (V)	超出左边栏的脉冲标准的特殊规格 Super high Energy
5D	400	1000	800	250	800	1000	举例 1 Example 14D 满足 20D 的脉冲性能要求 14D instead of 20D 举例 2 Example 14D561KH+ 能达到 6KV/3KA 100 次 14D561KH+ reach 6KV/3KA 100times
7D	1200	2000	1750	500	1750	2000	
10D	1500	4000	3500	1500	3500	4000	
14D	4500	6000	6000	3000	6000	6000	
20D	6500	10000	10000	5000	10000	10000	
符合国际和国家标准 Compliance with international and national standards	IEC61051-1 GB/T10193 IEC61051-2 GB/T10194 IEC61051-2-2 GBT10195 CSA-C22.2 UL1449 第三版 The third edition of UL1449		包含左栏，并增加以下标准: Include the left column and add the following criteria: IEC60950-1:2005/Annex Q GB4943.1-2011 GB8898-2011 UL1449 第 4 版 The fourth edition of UL1449		包含左栏，并增加以下标准: Include the left column and add the following criteria: IEC61000-4-5 GB/T17626.5 IEC61643-331 GB/T18802.331		

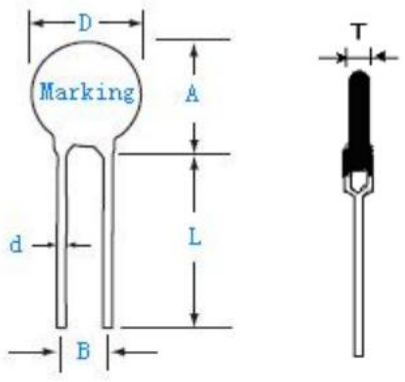
备注:1 上表仅适用于压敏电压 82V 以上规格的产品。2 上表电压冲击 15 次/40 次仅适用于压敏电压 430V 及以上规格的产品。

Remarks：1 The above table is only applicable to products with voltage sensitive voltage of more than 82V.

2The above table voltage shock 15 times/40 times only applies to products with voltage sensitive voltage 430V or above.

产品尺寸 单位（UNIT）:mm

A	15·Max	T（thickness）
B	7.5±1	180K--201K:5.0····221K--331K:5.5 361K--471K:6.0····511K--561K:6.5 621K--681K:7.0····751K--821K:7.5 102K--122K:8.0····142K--162K:10 182K:12
d	0.77±0.05	
D	13·Max	
L	25·Min	



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10D 系列 电气参数 10D 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 μs）times		静态功率 Rated Wattage	能量耐量 Energy（2ms）		静态电容量（参考值） Typical Capacitance
	0.1mA		AC	DC	V5A	1t	2t	（W）	10/1000	2ms	1KHz
	(V)		(V)		(V)	(A)			(A)		(PF)
10D180L	18	15-21.6	11	14	36	500	250	0.05	2.3	2.0	7.5k
10D220K	22	20-24	14	18	43	500	250	0.05	2.5	2.0	4.5k
10D270K	27	24-30	17	22	53	500	250	0.05	3.0	2.5	3.7K
10D330K	33	30-36	20	26	65	500	250	0.05	4.0	3.0	3K
10D390K	39	35-43	25	31	77	500	250	0.05	4.6	3.5	2.4K
10D470K	47	42-52	30	38	93	500	250	0.05	5.5	4.5	2.1K
10D560K	56	50-62	35	45	110	500	250	0.05	7.0	5.5	1.8K
10D680K	68	61-75	40	56	135	500	250	0.05	8.2	6.5	1.5K
10D820K	82	74-90	50	65	135	2500	1250	0.4	12	8.0	1.2K
10D101K	100	90-100	60	85	165	2500	1250	0.4	15	10.0	1.0K
10D121K	120	108-132	75	100	200	2500	1250	0.4	18	12.0	830
10D151K	150	135-165	95	125	250	2500	1250	0.4	22	16.0	670
10D181K	180	162-198	115	150	300	2500	1250	0.4	27	18.5	560
10D201K	200	185-225	130	170	340	2500	1250	0.4	30	20	500
10D221K	220	198-242	140	180	360	2500	1250	0.4	32	23	450
10D241K	240	216-264	150	200	395	2500	1250	0.4	35	25	420
10D271K	270	243-297	175	225	455	2500	1250	0.4	40	30	370
10D301K	300	270-330	195	250	500	2500	1250	0.4	40	32	330
10D331K	330	297-363	215	275	550	2500	1250	0.4	43	34	300
10D361K	360	324-396	230	300	595	2500	1250	0.4	47	35	280
10D391K	390	351-429	250	320	650	2500	1250	0.4	60	40	260
10D431K	430	387-473	275	350	710	2500	1250	0.4	65	45	230
10D471K	470	423-517	300	385	775	2500	1250	0.4	70	45	210
10D511K	510	459-561	320	410	845	2500	1250	0.4	70	45	200
10D561K	560	504-616	350	455	930	2500	1250	0.4	70	45	180
10D621K	620	558-682	385	505	1025	2500	1250	0.4	70	45	160
10D681K	680	612-748	420	560	1120	2500	1250	0.4	70	45	150
10D751K	750	657-825	460	615	1240	3500	2500	0.4	105	75	130
10D781K	780	702-858	485	640	1290	3500	2500	0.4	105	75	130
10D821K	820	738-902	510	670	1355	3500	2500	0.4	110	80	130
10D911K	910	819-1001	550	745	1500	3500	2500	0.4	130	90	120
10D951K	951	855-1045	575	765	1580	3500	2500	0.4	135	95	110
10D102K	1.0K	900-1100	625	825	1650	3500	2500	0.4	140	100	100
10D112K	1.1K	990-1210	680	895	1815	3500	2500	0.4	155	110	90
10D182K	1.8K	1620-1980	1000	1465	2970	3500	2500	0.4	247	183	60

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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/.

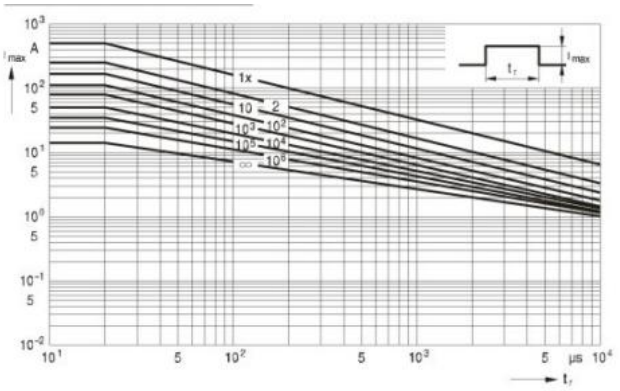
降额曲线图 Reduction curve

横轴是冲击时间即浪涌波型宽度，纵轴是冲击电流峰值，

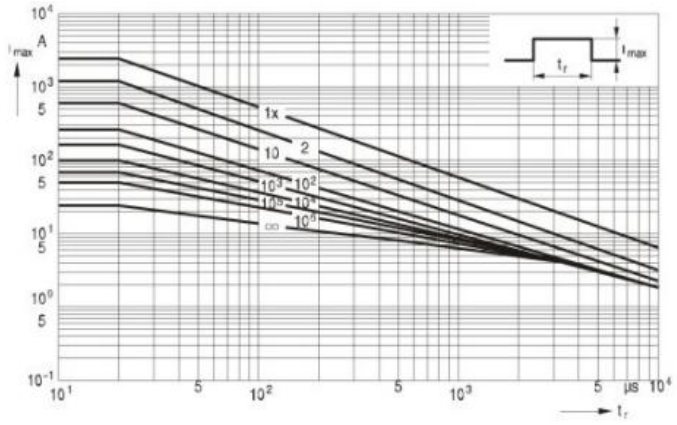
线上的数字是冲击次数

Maximum Surge current i max=f（tr，pules train）

10D180L-10D680K



10D820K-10D182K



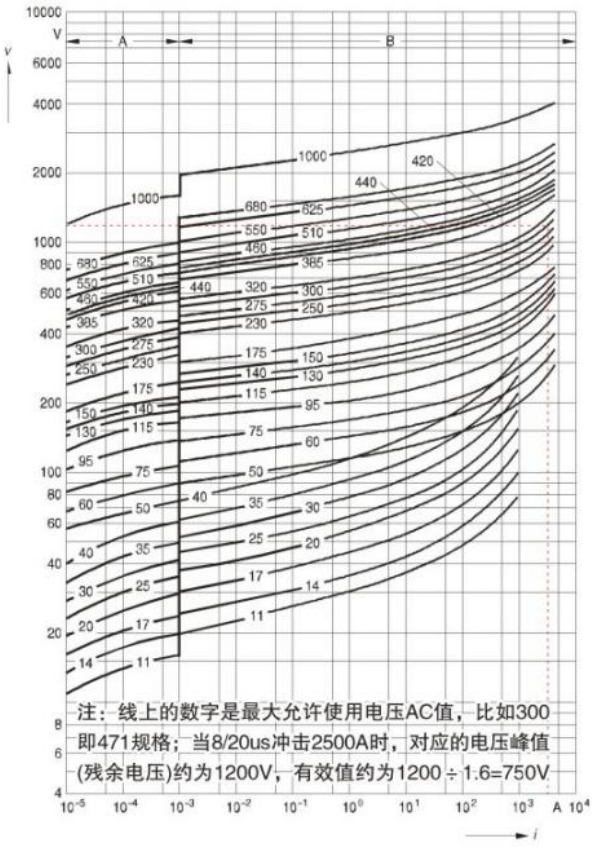
伏安特性图 v/i characteristics

A 区是泄露电流图，A=Leakage current

B 区是冲击电流与限制电流对称区

B=Protection level for worst-case varistor tolerances

10D180L-10D112K



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.

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