

Type GSMD Series/Surface Mounted Surge Absorber

GSMD系列/表面贴装玻璃放电管



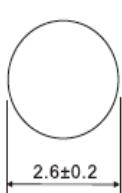
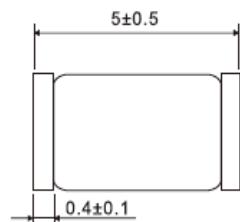
**Features**产品特征

- Approximately zero leaking current before clamping voltage.  
箝位电压前泄漏电流近似为零。
- Less decay at on/off state.  
开关时态衰减少
- High capability to withstand repeated lightning strikes.  
能承受多次闪电雷击
- Low electrode capacitance ( $\leq 0.5\text{ pF}$ ) and high isolation ( $\geq 100\text{ M}\Omega$ ).  
低电极电容( $\leq 0.5\text{ pF}$ )和高隔离( $\geq 100\text{ m}\Omega$ )
- Temperature, humidity and lightness insensitive  
温度、湿度和亮度不敏感
- Bilateral symmetrical  
双侧对称
- Operating temperature:  $-40^\circ\text{C} \sim +85^\circ\text{C}$   
工作温度： $-40^\circ\text{C} \sim +85^\circ\text{C}$
- Storage temperature:  $-40^\circ\text{C} \sim +125^\circ\text{C}$   
储存温度： $-40^\circ\text{C} \sim +125^\circ\text{C}$
- Meets MSL level1, per J-STD-020  
符合MSL一级，符合J-STD-020

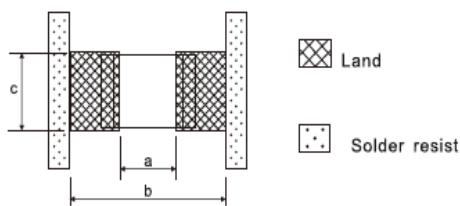
**Applications**产品应用

- Power Supplies.  
电源
- High frequency signal transmitters/receivers.  
高频信号发射器/接收器
- Relay switching spark absorbing.  
继电器开关火花吸收
- Data line pulse guarding.  
数据线脉冲保护
- Electronic devices requiring UL497A and UL497B compliance.  
符合UL497A和UL497B标准的电子设备
- Telephone/Fax/Modem.  
电话/传真/调制解调器
- Motor sparks eliminating.  
电机火花消除
- Satellite antenna.  
卫星天线
- Radio amplifiers.  
广播功放
- Alarm systems.  
报警系统
- Cathode ray tubes in Monitors/TVs.  
射线管/监视器/电视

**Dimensions(Unit:mm)**尺寸 (单位: mm)



**Recommended Land Pattern**焊盘尺寸



Soldering Method	Dimensions(mm)		
	a	b	c
Reflow Soldering	2.7	6.5~8.5	3.0
Flow Soldering	2.9	6.5~9.5	3.2

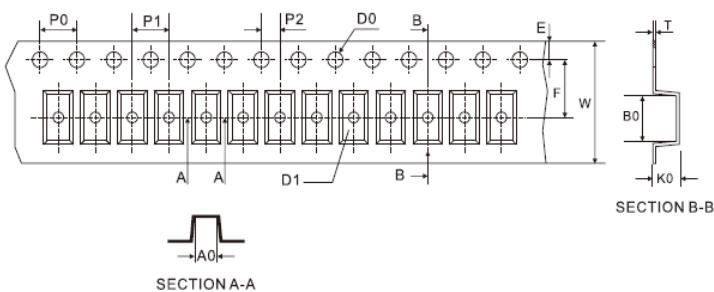
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**Electrical Specifications 电气特性**

Catalog Number	DC Spark-Over Voltage 100V/s Vs(V)	Impulse Spark-Over 1KV/ $\mu$ s	Nom Impulse Discharge Current 10x700 $\mu$ s(KV)	Nom Impulse Discharge Current 8x20 $\mu$ s(KA)	Insulation Resistance		Capacitance C 1MHz < 6V pF Max
					Min. M $\Omega$	DC V	
GSMD-141N	140V±30%	700	2.0	1.0	100	50	1
GSMD-201M	200V±20%	700	2.0	1.0	100	100	1
GSMD-301M	300V±20%	900	2.0	1.0	100	100	1
GSMD-401M	400V±20%	1000	2.0	1.0	100	100	1
GSMD-501M	500V±20%	1200	2.0	1.0	100	250	1
GSMD-601M	600V±20%		2.0	1.0	100	250	1
GSMD-102M	1000V±20%		2.0	1.0	100	250	1

**Packaging and Type Designation 包装和型号名称**

Tape



符号	尺寸 (mm)
W	8.0±0.3
P0	4.0±0.1
P1	4.0±0.1
P2	2.0±0.1
D0	Φ1.5±0.1
D1	Φ1.0±0.1
E	1.5±0.1
F	3.4±0.1
A0	1.6±0.1
B0	4.0±0.1
K0	1.6±0.1
T	0.2±0.1

**Formation of Type Designation** 类型命名的形成

Example: GSMD-141 N

① ② ③

Symbols 符合表

NO.	Symbols Explain 符号解释
① Series Name	GSMD series
② Nominal DC spark over voltage	The symbol denoting nominal DC sparkover voltage shall be expressed by three numerals. The first and second numerals shall represent the significant figures of nominal DC sparkover voltage in volts(V), and the third numeral shall represent the number of zeros following the significant figures.
③ Tolerances on DC Sparkover Voltage	Tolerances:L — ±15% ; M — ±20% ; N — ±30% ;

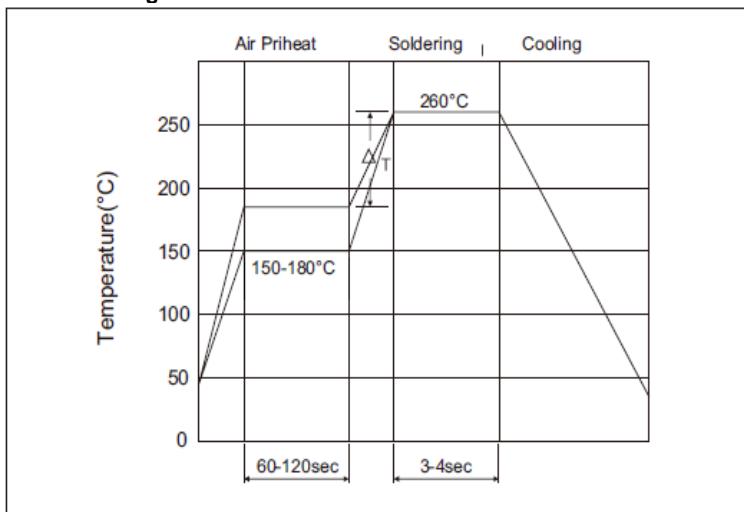
On Taping: GSMD series-2500pcs Per Reel

GSMD series -25000pcs outer box.

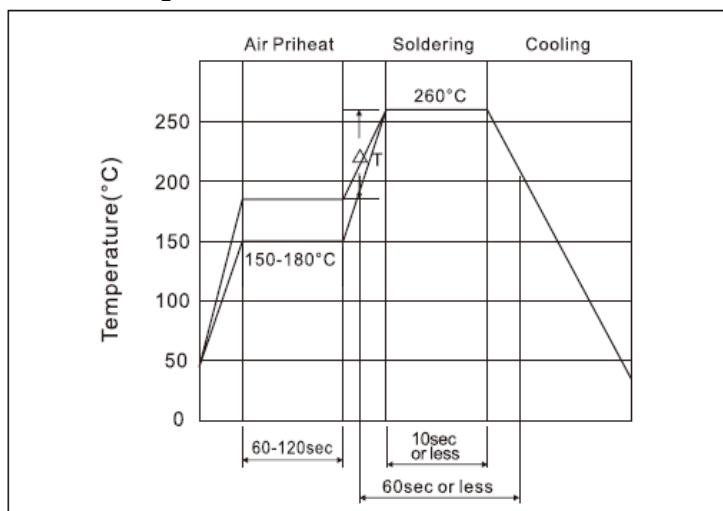
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**Recommended Soldering Conditions** 焊接条件

**Flow Soldering Conditions**



**Reflow Soldering Conditions**



**Hand Soldering**

Solder iron temperature:  $350 \pm 5^\circ\text{C}$ .  
Heating time: 3 seconds max.

- Time shown in the above figures is measured from the point when chip surface reaches temperature.
- Temperature difference in high temperature part should be within  $110^\circ\text{C}$ .
- After soldering, do not force cool, allow the parts to cool gradually.

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