

Gas Discharge Tube

GSM***D Series

Features

- Electronic stability
- Small volume, easy to placement machine operation
- Large flow capacity, impact resistant ability
- Static electricity capacity, good insulation
- Reaction speed is 50 ns - 150 ns
- Storage and operating temperature -40~125°C



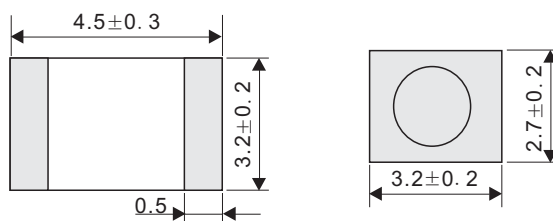
Applications

- ADSL MODEM、FAX、TELEPHONE
- RS485、RS232、CAN level of protection
- CATV
- Power supply prevents thunder common-mode protection
- Line cards

Electrical Characteristics

Part Number	DC Spark-over Voltage (@100V/s) (V)	Impulse Spark-over Voltage (@1KV/ μ s) (V)	Discharge Current 10hits (@8/20 μ s) (KA)	AC Discharge Current (@50Hz) (A)	Min.Insulation Resistance (@DC)		Max. Capacitance (@1MHz) (pF)
					(G Ω)	Test Voltage (V)	
GSM075D	75 $\pm$ 20%	600	2	2	1	50	1
GSM090D	90 $\pm$ 20%	600	2	2	1	50	1
GSM150D	150 $\pm$ 20%	600	2	2	1	100	1
GSM230D	230 $\pm$ 20%	750	2	2	1	100	1
GSM300D	300 $\pm$ 20%	850	2	2	1	100	1
GSM470D	470 $\pm$ 20%	1100	2	2	1	100	1
GSM600D	600 $\pm$ 20%	1300	2	2	1	100	1
GSM800D	800 $\pm$ 20%	1600	2	2	1	100	1

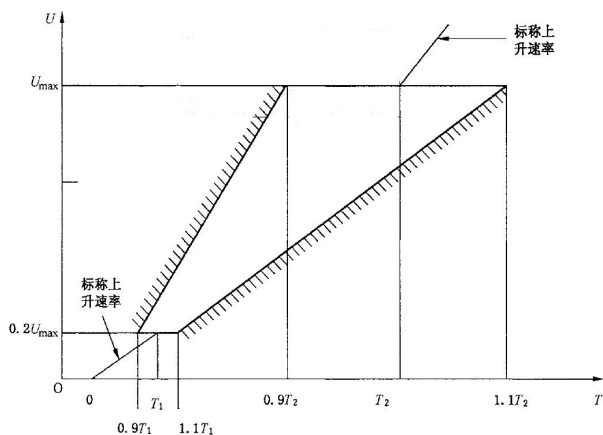
Dimensions



Dimensions in millimeters

Surge arrester

DC breakdown voltage



8/20us, Test wave

$$T1=1.25T=8\mu s\pm 20\%$$
$$T2=20\mu s\pm 20\%$$

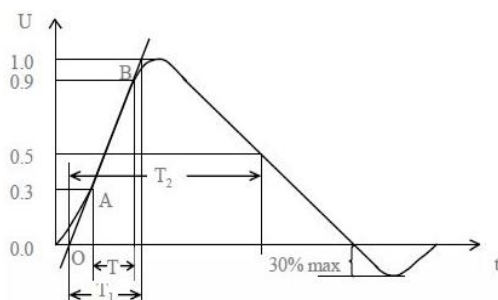
10/700us, Test Wave

$$T1=1.67T=10\mu s \pm 20\%$$
$$T_2 = 700 \mu s \pm 20\%$$

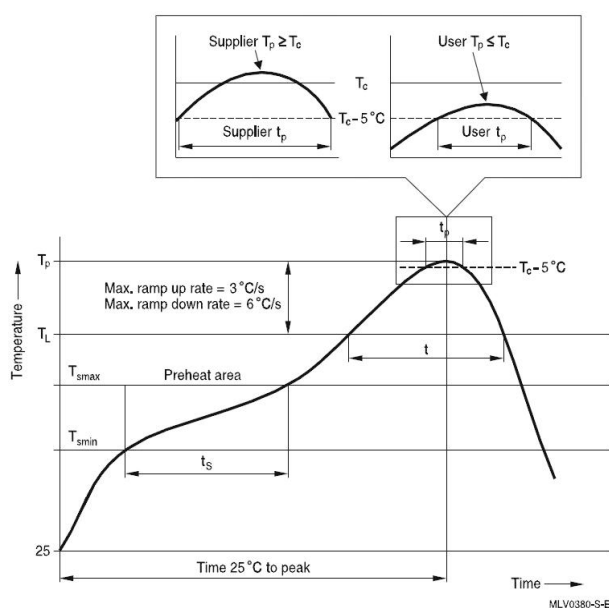
10/1000us, Test Wave

$$T1=1.67T=10\mu s \pm 20\%$$

T2=1000us±20%



Recommended wave soldering profile



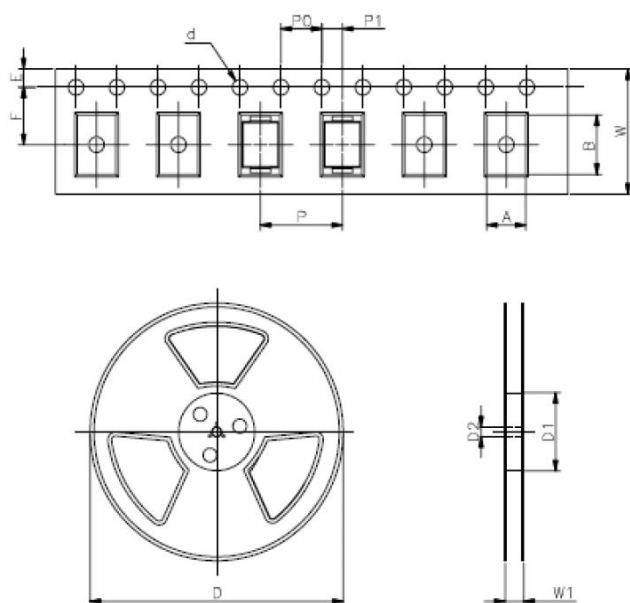
Reflow profile features		Sn- Pb eutectic assembly	Pb-free assembly
Preheat and soak - Temperature min - Temperature max - Time	T_{smin} T_{smax} t_{smin} to t_{smax}	100 °C 150 °C 60 ... 120 s	150 °C 200 °C 60 ... 180 s
Average ramp-up rate	T_{smin} to T_p	max. 3 °C/ s	max. 3 °C/ s
Liquidous temperature Time at liquidous	T_L t_L	183 °C 60 ... 150 s	217 °C 60 ... 150 s
Peak package body temperature *, Classification temperature **	T_p , T_C	220 ... 235 °C **	245 ... 260 °C **
Time (t_p) ** within 5 °C of the specified classification temperature (T_C)		20 s ***	30 s ***
Average ramp-down rate	T_p to T_{smax}	max. 6 °C/ s	max. 6 °C/ s
Time 25 °C to peak temperature		max. 6 min	max. 8 min

* = Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.

** = For details please refer to JEDEC J-STD-020D.

*** = Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

Packaging 2500pcs/reel



REF	mm
A	3.9±0.2
B	4.9±0.2
d	Φ1.5±0.1
E	1.75±0.1
F	5.5±0.2
P	8±0.2
P0	4±0.2
P1	2±0.2
W	12±0.3
D	Φ330±4
D1	φ 100±5
D2	Φ13±0.2
W1	16.8±2

Cautions and warnings

- Surge arresters must not be operated directly in power supply networks
- Surge arresters may become hot in case of longer periods of current stress (danger of burning).
- If the contacts of the surge arrester are defective, current stress can lead to the formation of sparks and loud noises.
- Surge arresters may be used only within their specified values. In case of overload, the head contacts may fail or the component may be destroyed.
- Damaged surge arresters must not be re-used.