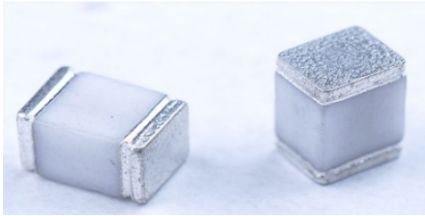


Gas Discharge Tubes



GDT introduction: Gas discharge tubes (GDT) use noble gases enclosed in ceramic tubes to provide an alternate circuit path for voltage spikes. The ceramic envelope and nickel connectors allow for high loads and surges that function at 20KA, 40KA, 50KA, 60KA, 100KA & 150KA. The breakdown voltages of the devices have a wide range with up to 20% tolerance. Major applications are high frequency telecommunication lines, stations, security systems, HID and high quality Surge Protection Devices (SPD).

Features

1. RoHS & HF compliant
2. Size: 4.5mm*3.2mm
3. DC Spark-over voltage: 75~1100V
4. Stable breakdown voltage.
5. High insulation resistance.
6. High holdover voltage.
7. Large absorbing transient current capability.
8. Low Capacitance
9. Micro-Gap Design

Recommended Applications

1. Communication equipment
2. CATV equipment
3. Test equipment
4. Data lines
5. Power supplies
6. Telecom SLIC protection
7. Telecommunications

Product Name**SMD****Series:****SMD: 4532/1812 (4.5*3.2*2.7)****SMB: 3216/1206 (3.2*1.6*1.6)****230XM****DC Spark-over Voltage:****230X=230V****102X=1000V**

Electrical Characteristics

GDT Part Number code	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage	Minimum Insulation Resistance		Impulse Life Test	Nominal Impulse Discharge Current	Maximum Capacitance
	100V/S	1KV/ μ s	Test Voltage	(G Ω)	8/20 μ s, 100A	8/20 μ s	1MHz
	(V)	(V)	DC(V)		Times	(A)	(pF)
SMD70XM	70 (50~90)	600	50	1	300	2000	0.5
SMD75XM	75 (55~95)	600	50	1	300	2000	0.5
SMD90XM	90 (63~117)	700	50	1	300	2000	0.5
SMD120XM	120 (84~156)	700	50	1	300	2000	0.5
SMD150XM	150 (105~195)	750	50	1	300	2000	0.5
SMD200XM	200 (140~260)	750	100	1	300	2000	0.5
SMD230XM	230 (161~299)	750	100	1	300	2000	0.5
SMD300XM	300 (210~390)	800	100	1	300	2000	0.5
SMD350XM	350 (245~455)	900	100	1	300	2000	0.5
SMD400XM	400 (280~520)	950	100	1	300	2000	0.5
SMD420XM	420 (294~546)	950	100	1	300	2000	0.5
SMD470XM	470 (329~611)	1000	100	1	300	2000	0.5
SMD500XM	500 (350~650)	1100	100	1	300	2000	0.5
SMD600XM	600 (420~780)	1200	100	1	300	2000	0.5
SMD800XM	800 (615~1040)	1300	100	1	300	2000	1.0
SMD102XM	1000 (700~1300)	2000	100	1	300	2000	1.0

• Storage Conditions:

1. Operating temperature: -40°C~+125°C
2. Relative Humidity: $\leq 75\%$ RH
3. Keep away from corrosive atmosphere and sunlight.

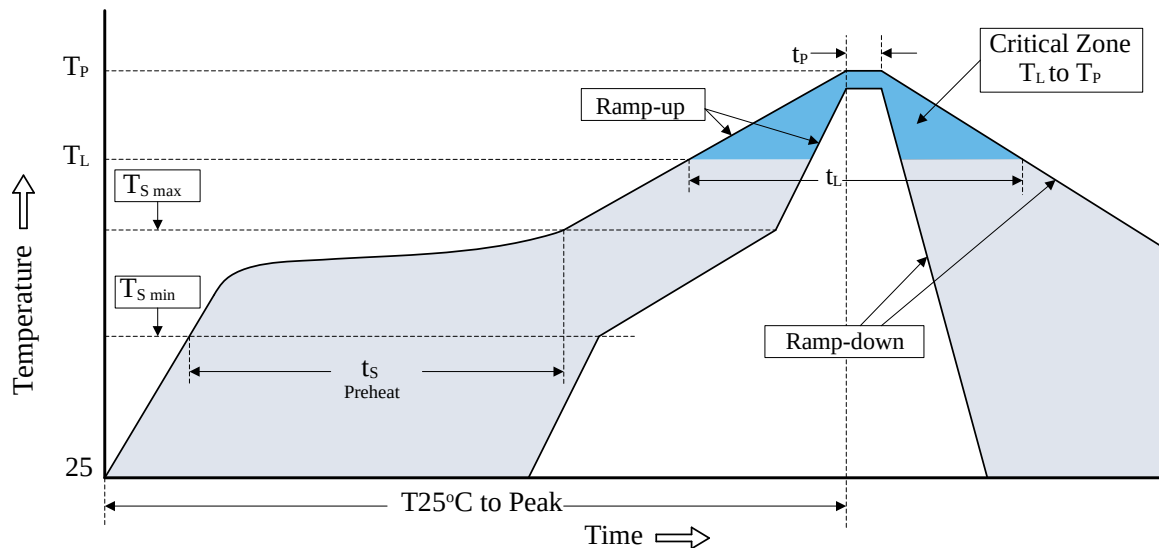
• Period of Storage: 1 year

4. Recommended storage

- temperature +5 ... +35 °C
- humidity 45 ... 80 %

Recommended Soldering Conditions

Reflow Soldering

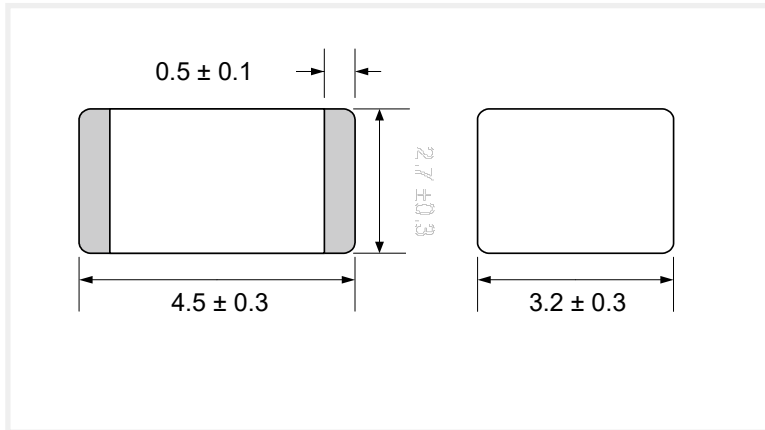


Recommended Conditions

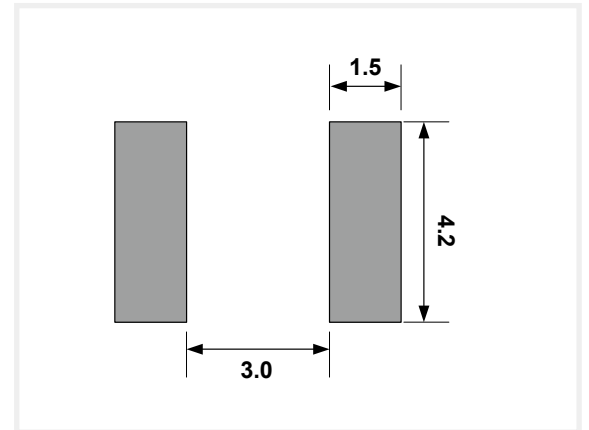
Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.
Preheat -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_s)	150°C 200°C 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	3°C/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	217°C 60-150 seconds
Peak Temperature (T_P)	260°C
Time within 5°C of actual Peak Temperature (t_p)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

Product size (Unit:mm)

Dimension

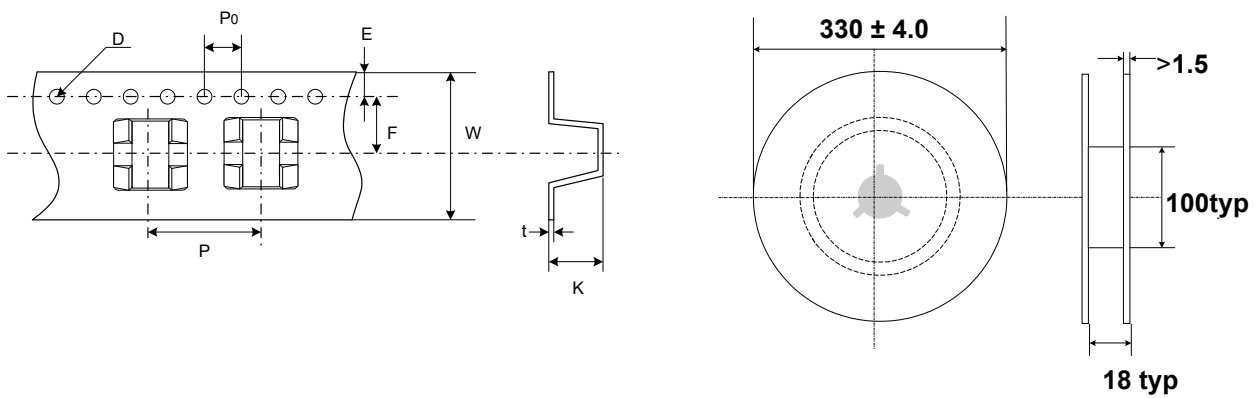


Recommended Pad Size



Packaging Taping

Unit:mm



Item	P	PO	W	F	E	D	K	t
Spec.	8.0	4.0	12.0	5.45	1.75	$\Phi 1.55$	3.1	0.4
Tolerance	± 0.1	± 0.1	± 0.13	± 0.1	± 0.1	± 0.05	± 0.1	± 0.05