



Gas Discharge Tubes - SMD Series



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

Features

- RoHS & HF compliant
- Size: 4.5mm*3.2mm
- DC Spark-over voltage: 75~600V
- Stable breakdown voltage.
- High insulation resistance.
- High holdover voltage.
- Large absorbing transient current capability.
- Low Capacitance
- Micro-Gap Design

Recommended Applications

- Communication equipment
- CATV equipment
- Test equipment
- Data lines
- Power supplies
- Telecom SLIC protection
- Telecommunications

Product Name

SMD 230XM

Series:

SMD Series : 4532=1812(4.5*3.2*2.7)

SMB Series: 3216=1206(3.2*1.6*1.6)

DCLineVoltage:

90X=90V

230X=230V



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Electrical Characteristics

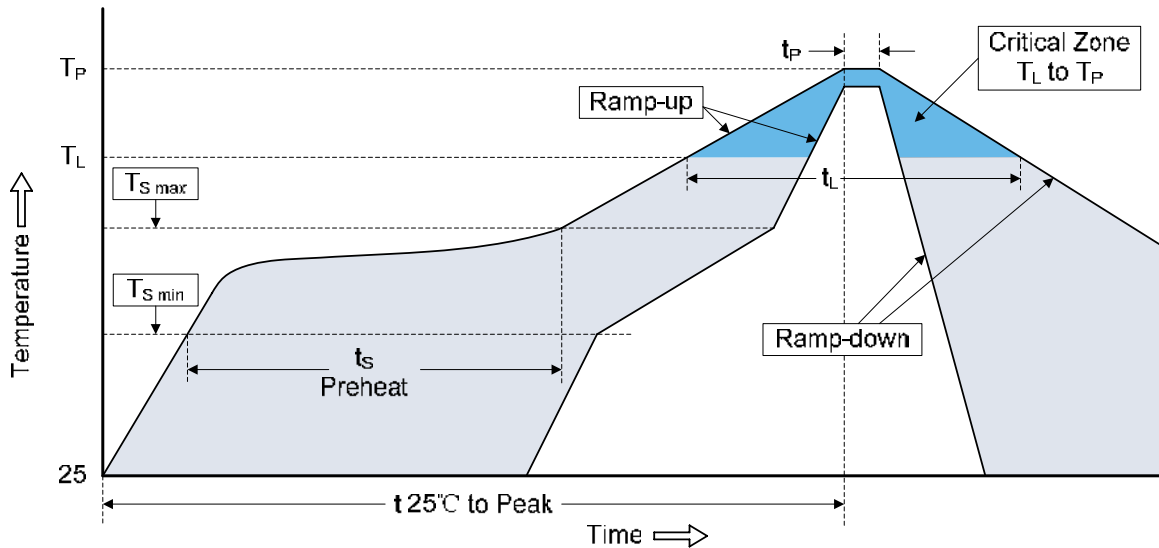
Part Number	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage	Minimum Insulation Resistance		Impulse Life Test	Nominal Impulse Discharge Current	Maximum Capacitance
	100V/S		Test Voltage	(GΩ)			
	(V)	1KV/μs			DC(V)	8/20 μs,100A	8/20 μs
SMD70XM	70 (50~90)	600	50	1	300	3000	0.5
SMD75XM	75 (55~95)	600	50	1	300	3000	0.5
SMD90XM	90 (63~117)	700	50	1	300	3000	0.5
SMD120XM	120 (84~156)	700	50	1	300	3000	0.5
SMD150XM	150 (105~195)	750	50	1	300	3000	0.5
SMD200XM	200 (140~260)	750	100	1	300	3000	0.5
SMD230XM	230 (161~299)	750	100	1	300	3000	0.5
SMD300XM	300 (210~390)	800	100	1	300	3000	0.5
SMD350XM	350 (245~455)	900	100	1	300	3000	0.5
SMD400XM	400 (280~520)	950	100	1	300	3000	0.5
SMD420XM	420 (294~546)	950	100	1	300	3000	0.5
SMD470XM	470 (329~611)	1000	100	1	300	3000	0.5
SMD500XM	500 (350~650)	1100	100	1	300	3000	0.5
SMD600XM	600 (420~780)	1200	100	1	300	3000	0.5



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Recommended Soldering Conditions

Reflow Soldering



Recommended Conditions

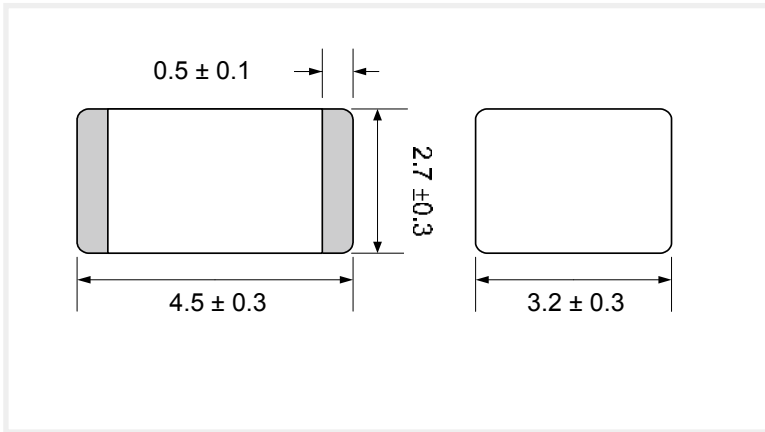
Profile Feature	Pb-Free Assembly
Average ramp-up rate (T _L to T _P)	3°C/second max.
Preheat	
-Temperature Min (T _{S min})	150°C
-Temperature Max (T _{S max})	200°C
-Time (min to max) (t _s)	60-180 seconds
T _{S max} to T _L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T _L)	217°C
-Time (t _L)	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.



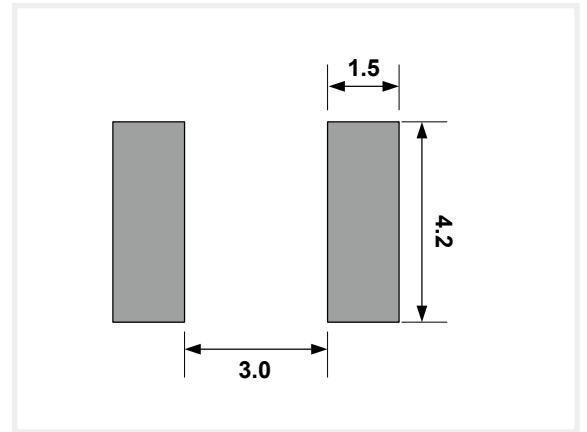
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Product size (Unit:mm)

Dimension

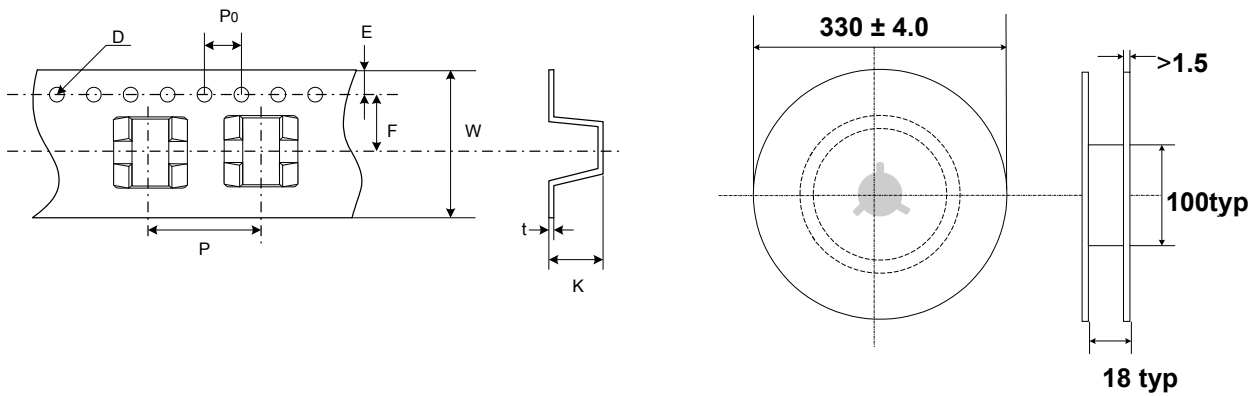


Recommended Pad Size



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