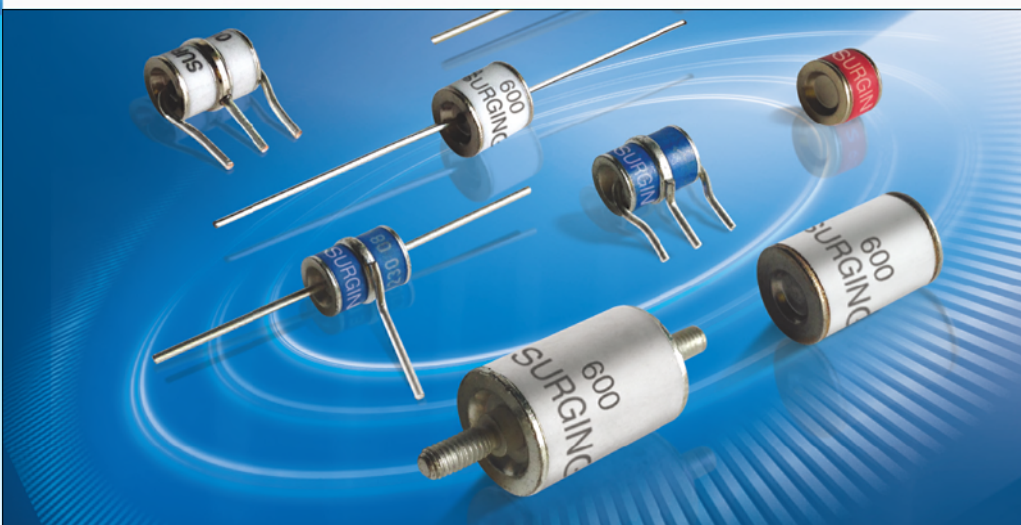


# SURGiNG

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# SurgeArresters

陶瓷气体放电管

SMD Series

## 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 SURGING 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: 75~1000V
- 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系列: 4532=1812(4.5\*3.2\*2.7)  
SMB系列: 3216=1206(3.2\*1.6\*1.6)

**DCLineVoltage:**

230X=230V  
102X=1000V

## Gas Discharge Tubes - SMD Series

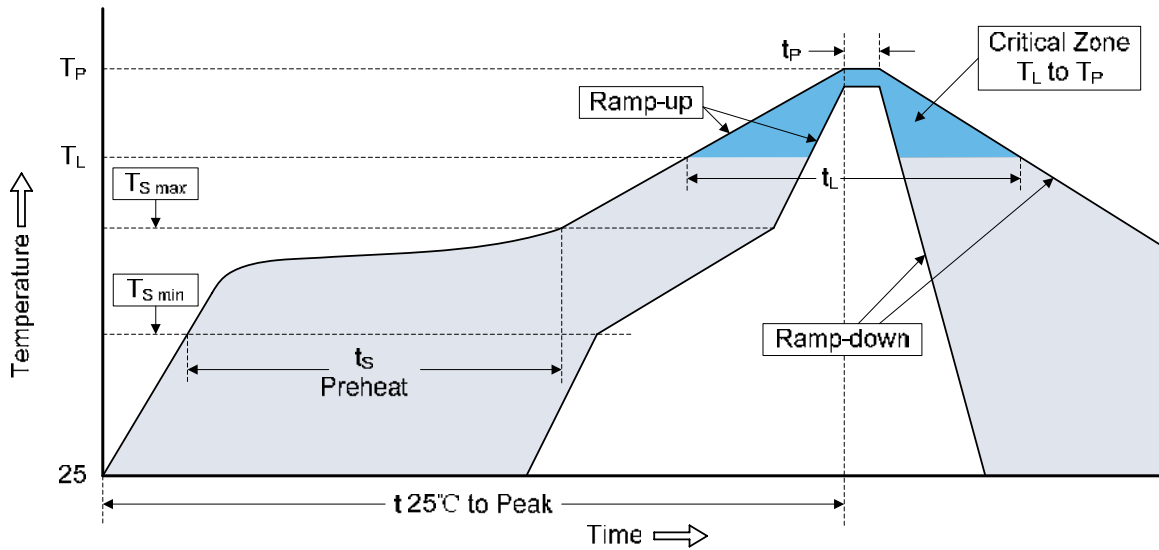
### Electrical Characteristics

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	1KV/ $\mu$ s	Test Voltage	(G $\Omega$ )	8/20 $\mu$ s, 100A	8/20 $\mu$ 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

## Gas Discharge Tubes - SMD Series

### Recommended Soldering Conditions

Reflow Soldering



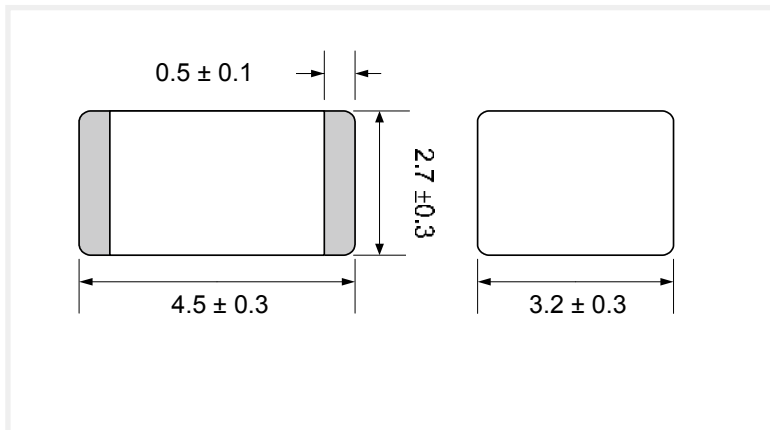
Recommended Conditions

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.

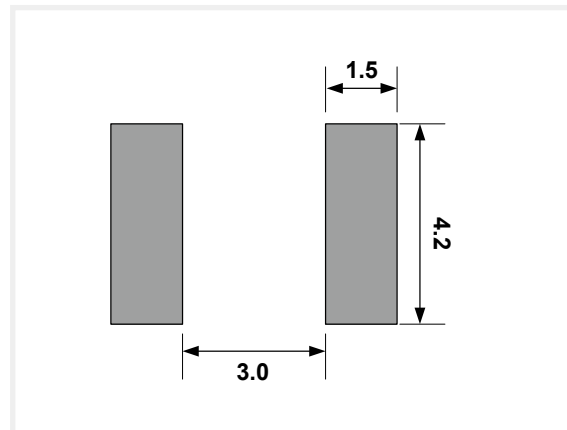
## Gas Discharge Tubes - SMD Series

### Product size (Unit:mm)

#### Dimension

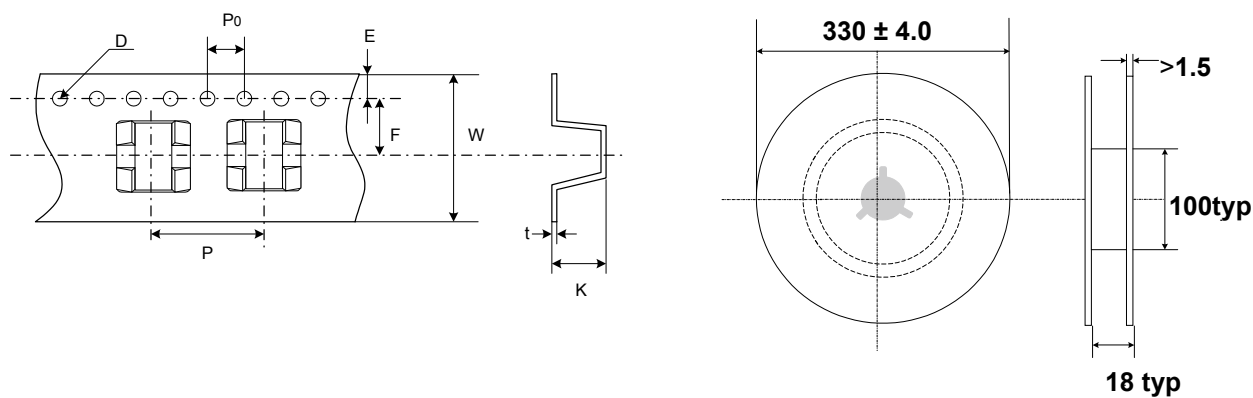


#### Recommended Pad Size



### Packaging Taping

Unit:mm



Item	P	PO	W	F	E	D	K	t
Spec.	8.0	4.0	12.0	5.45	1.75	Φ1.55	3.1	0.4
Tolerance	±0.1	±0.1	±0.13	±0.1	±0.1	±0.05	±0.1	±0.05