



Features

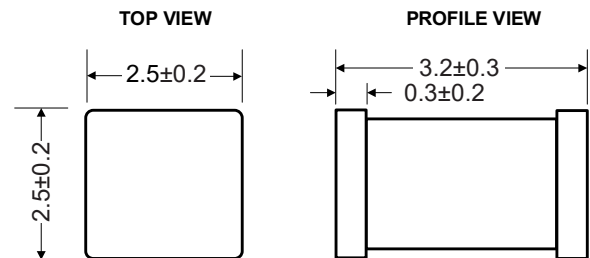
- 2-electrode arrester
- Very small size
- Excellent SMD handling
- Low capacitance ($\leq 0.5\text{pF}$)
- High insulation resistance
- Surge current capacity 2KA 8/20us
- Storage and operating temperature: $-40\text{ }^{\circ}\text{C} \sim +85\text{ }^{\circ}\text{C}$
- RoHS compliant
- Meets MSL level 1



Applications

- Repeaters, Modems
- Telephone Interface, Line cards
- Data communication equipment
- Line test equipment

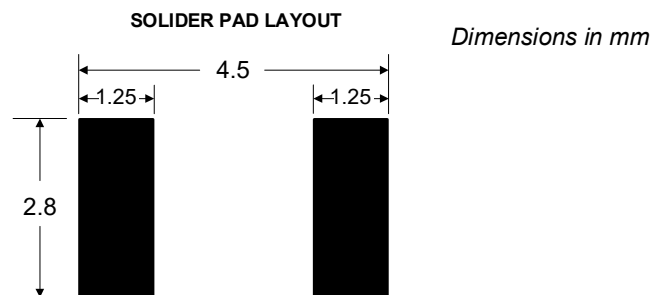
Dimensional drawing



PartNumber Code

SMD3225-090M

- SMD: Surface Mount Package
- 3225: Size: 1210(3.2mm*2.5mm*2.5mm)
- 090: DC Spark-over Voltage 90V
- M: Tolerance of DC Spark-Over Voltage
M:20% N: 30%



Electrical Characteristics

Part Number	DC Spark-over Voltage	Max.Impulse Spark-over Voltage	Impulse Discharge Current (8/20us)	AC discharge Current	Impulse Life	Minimum Insulation Resistance		Max. Capacitance 1MHz
	100V/S	1KV /us	10 times	50Hz, 1S	10/700us	Test Voltage DC(V)	(GΩ)	(pF)
	%	V	KA	A	KV			
SMD3225-090N	90V±30%	700V	1	1	6	100	1	0.5
SMD3225-120N	90V±30%	700V	1	1	6	100	1	0.5
SMD3225-150N	150V±30%	750V	1	1	6	100	1	0.5
SMD3225-200M	200V±20%	750V	1	1	6	100	1	0.5
SMD3225-230M	230V±20%	750V	1	1	6	100	1	0.5
SMD3225-300M	300V±20%	800V	1	1	6	100	1	0.5
SMD3225-350M	350V±20%	900V	1	1	6	100	1	0.5
SMD3225-400M	400V±20%	1000V	1	1	6	250	1	0.5
SMD3225-420M	420V±20%	1050V	1	1	6	250	1	0.5
SMD3225-500M	500V±20%	1200V	1	1	6	250	1	0.5

Electrical Ratings

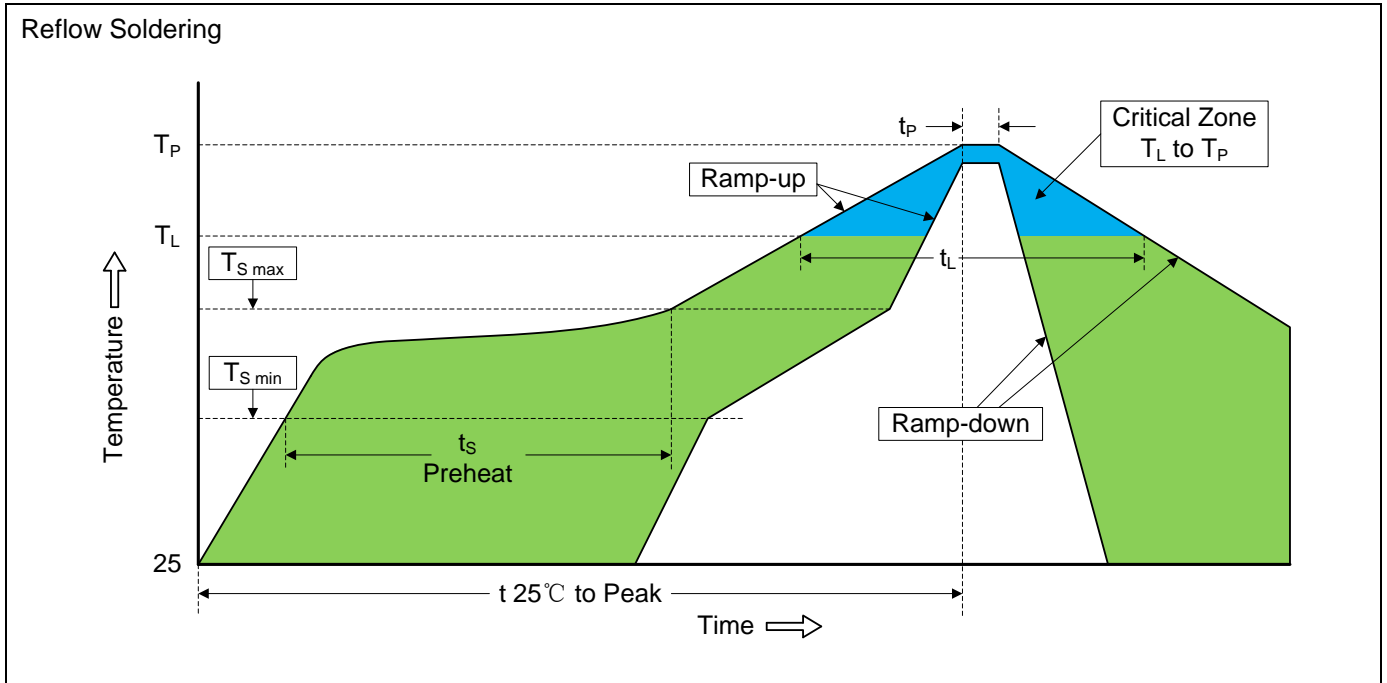
Items	Test Condition/Description	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp $dv/dt=100V/s$.	To meet the specified value
Maximum Impulse Spark-over Voltage	The maximum impulse spark-over voltage is measured with voltage ramp $dv/dt=1000V/\mu s$.	
Insulation Resistance	The resistance of gas tube shall be measured between two electrodes.	
Capacitance	The capacitance of gas tube shall be measured between two electrodes. Test frequency: 1MHz	
Impulse Discharge Current	Maximum $8/20\mu s$ surge current that can be applied between two electrodes, 5 positive and 5 negative surges, with 3 minutes interval time, without causing the DC spark-over voltage to change more than 30% from its initial value.	
Impulse Withstanding Voltage	The maximum $10/700\mu s$ surge that can be applied to the Gas Tube, 5 positive and 5 negative surges, with 1 minute interval time, without causing the DC spark-over voltage to change more than 25% from its initial value.	

Reliability

Items	Test conditions / Methods	Standard
Cold Resistance	Measurement after $-40^{\circ}C/1000$ HRS & normal temperature/2 HRS.	Features are conformed to rated spec.
Heat Resistance	Measurement after $125^{\circ}C/1000$ HRS & normal temperature/2 HRS.	
Humidity Resistance	Measurement after humidity $90\sim 95^{\circ}C(45^{\circ}C)$ /1000 HRS & normal temperature/2 HRS.	
Temperature Cycle	10 times repetition of cycle $-40^{\circ}C/30min \rightarrow$ normal, temp/2 min $\rightarrow 125^{\circ}C/30min$, measurement after normal temp/2 HRS.	
Solder Ability	Check for solder adhesion after $260\pm 5^{\circ}C$ for 3sec , The body immersion depth 1.5mm in molten solder	Evenly covered by solder.
Solder Heat	Measurement after $260\pm 5^{\circ}C$ solder for 10sec, The body immersion depth 1.5mm in molten solder	Conformed to rated spec.



Recommended Soldering Conditions



Recommended Conditions

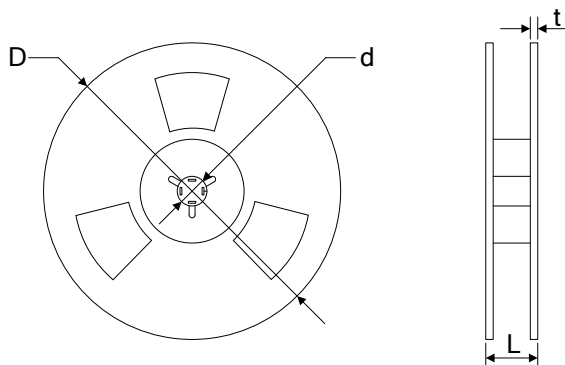
Profile Feature	Pb-Free Assembly
Average ramp-up rate (T _L to T _P)	3°C/second max.
Preheat	
-Temperature Min (T _{S min})	150°C
-Temperature Max (T _{S max})	200°C
-Time (min to max) (t _s)	60-180 seconds
T _{S max} to T _L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T _L)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



Packaging

Tape	Dimension (mm)		
	Items	Spec	Tolerance
	W	12.00	±0.20
	A0	2.90	±0.10
	B0	3.60	±0.10
	K0	2.90	±0.10
	E	1.75	±0.10
	F	5.50	±0.10
	D	1.55	±0.10
	P	8.00	±0.10
	P0	4.00	±0.10
	P1	2.00	±0.10
	t	0.40	±0.10
	D	300.00	±1.00
	d	13.00	±0.50
	L	16.00	±0.50
t	2.00	±0.20	
Quantity: 2500pcs			

Reel



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Gas Discharge Tubes - GDTs / Gas Plasma Arrestors](#) category:

Click to view products by [DOWO](#) manufacturer:

Other Similar products are found below :

[PMT1023004](#) [PMT1025001](#) [RF3161-000](#) [PMT1035004](#) [PMT1040004](#) [PMT809006](#) [CG2250](#) [CG2800](#) [CG31.5L](#) [GT-SMD181240012-TR](#)
[WPGT-2N145B6L](#) [WPGT-2N230B6L](#) [WPGT-2N470B6L](#) [WPGT-2R470B6L](#) [WPGT-2RM230A6L](#) [WPGT-2RM350A6L](#) [WPGT-](#)
[2RM70A6L](#) [WPGT-2RM90A6L](#) [WPGT-2S145](#) [WPGT-2S350](#) [WPGT-2S470](#) [WPGT-3R350CF](#) [WPGT-3R350G1](#) [WPGT-3R90G1](#) [WPGT-](#)
[3R75G1](#) [WPGT-3R470G1](#) [WPGT-3R250C](#) [WPGT-3R230G1](#) [WPGT-2S230](#) [WPGT-2RM470A6L](#) [WPGT-2RM145A6L](#) [WPGT-2R3000B8L](#)
[WPGT-2R2700B8L](#) [WPGT-2R1000B8L](#) [WPGT-2N90B6L](#) [WPGT-2N70B6L](#) [WPGT-2N350B6L](#) [WPGT-2N230B6L1](#) [CG90](#) [CG2230](#)
[CG2145](#) [CG21000](#) [GT-SMD181215012-TR](#) [B88069X6940B152](#) [V20-1+NPE-280](#) [V20-3+NPE+FS-280](#) [SD09-V24 9](#) [C50-0-255](#)
[SG24PA300](#) [A9L40500](#)