

Gas Discharge Tube

SMD3216-070~600N Series

GDTs (Gas Discharge Tubes) are placed in front of, and in parallel with, sensitive telecom equipment such as power lines, communication lines, signal lines and data transmission lines to help protect them from damage caused by transient surge voltages that may result from lightning strikes and equipment switching operations. These devices do not influence the signal in normal operation. However, in the event of an overvoltage surge, such as a lightning strike, the GDT switches to a low impedance state and diverts the energy away from the sensitive equipment.

SMD4532 series GDT offers high surge ratings in a miniature package. It's designed for surface mounting on PCB with small size 4.5x3.2x2.7mm. Low insertion loss is perfectly suited to broadband equipment applications.

The capacitance does not vary with voltage, and will not cause operational problems with ADSL2+, where capacitance variation across Tip and Ring is undesirable. These devices are extremely robust and are able to divert a 1000A pulse without destruction.

ROHS



Features

- RoHS compliant and Lead-free
- GHz working frequency
- Compact, small form factor suitable for efficient assembly
- Helps provide overvoltage fault protection against high energy surges
- Suitable for high-frequency applications
- 3.2*1.6*1.6mm devices
- Broad voltage range from 70V-600V
- Various form factors: surface mount, axial leads, no leads
- Low capacitance and insertion loss
- RoHS compliant
- Devices tested per ITU K.12 recommendations
- Non-radioactive materials

Applications

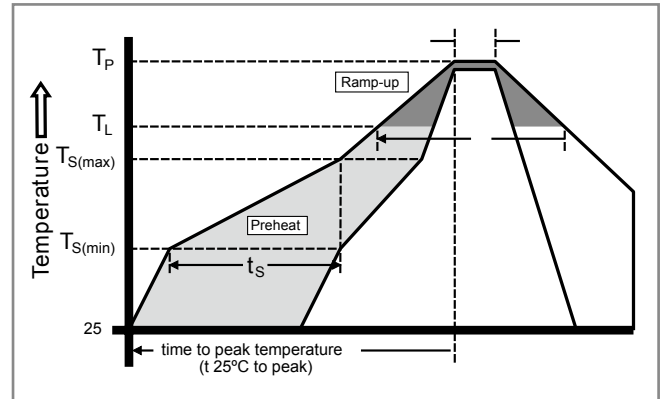
- Communication equipment
- CATV equipment
- Test equipment
- Data lines
- Power supplies
- Telecom SLIC protection
- Industrial and consumer electronics, such as
 - Surge protectors
 - Alarm system
 - Telecommunications
 - MDF modules, xDSL equipment, RF system protection, antenna, base station

Electrical Characteristics

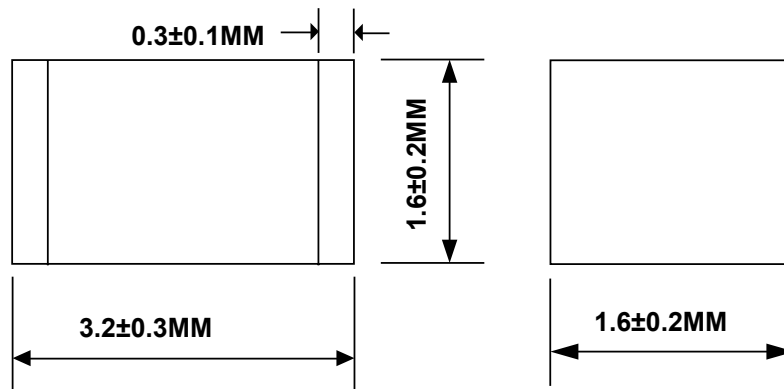
Type number	DC Spark-over Voltage	Maximum Impulse Discharge Voltage	Impulse withstanding voltage capacity	Maximum Insulation Resistance		Maximum Capacitance
	100v/s	1kv/ μ s	8/20 μ s, 10times	Test Voltage	(M Ω)	1MHZ 1V
	(V)	(V)	(KA)	DC(V)		(pF)
SMD3216-070N	70 \pm 30%	700	0.5KA	DC 25V >100M Ω		0.5 pF
SMD3216-075N	75 \pm 30%	700		DC 50V >100M Ω		
SMD3216-090N	90 \pm 30%	700				
SMD3216-150N	150 \pm 30%	750				
SMD3216-200N	200 \pm 30%	750				
SMD3216-230N	230 \pm 30%	750				
SMD3216-300N	300 \pm 30%	800				
SMD3216-350N	350 \pm 30%	850				
SMD3216-400N	400 \pm 30%	900				
SMD3216-470N	470 \pm 30%	950				
SMD3216-600N	600 \pm 30%	1050				

Soldering Parameters - Reflow Soldering (Surface Mount Devices)

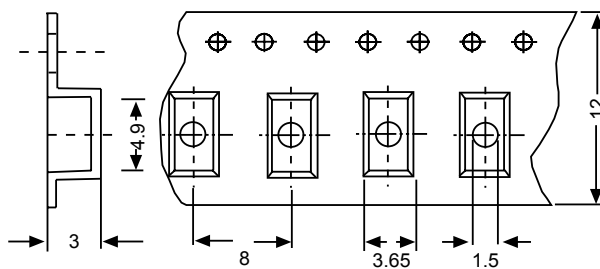
Reflow Condition		Pb – Free assembly
Pre Heat	- Temperature Min ($T_{S(min)}$)	150°C
	- Temperature Max ($T_{S(max)}$)	200°C
	- Time (Min to Max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{S(max)}$ to T_L - Ramp-up Rate		5°C/second max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260 ^{+0/-5} °C
Time within 5°C of actual peak Temperature (t_p)		10 – 30 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes Max.
Do not exceed		260°C



Device Dimensions



Tape Dimensions (Tape size is according to IEC 60286-3)



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