瑞隆源电子
RuilongYuan Electronics

Gas Discharge Tube

SMD4532-070~600NF 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
- Excellent stability on multiple pulse duty cycle
- Excellent response to fast rising transients.
- Ultra Low Insertion Loss
- Compact, small form factor suitable for efficient assembly
- Helps provide overvoltage fault protection against high energy surges
- Suitable for high-frequency applications
- Ultra small devices offered in a variety of mounting lead forms
- Non-radioactive
- low capacitance(<1pf)
- Voltage ranges 75V to 600
- Conforms to ITU K.12 ,IEC61000-4-5
- square outline

Applications

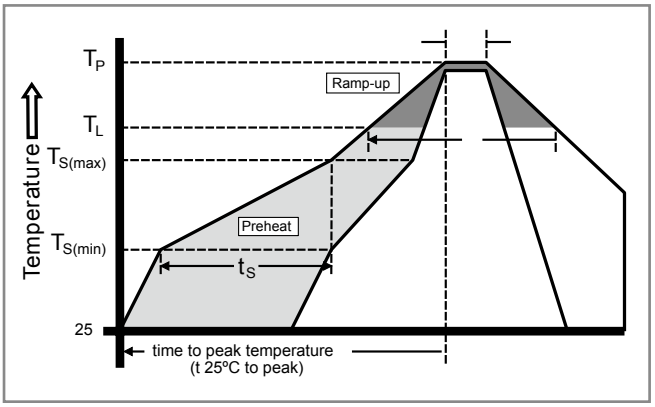
- Communication equipment
- CATV equipment
- Test equipment
- Data lines
- Power supplies
- Telecom SLIC protection
- Telecommunications
- MDF modules, xDSL equipment, RF system protection, antenna, base station
- Industrial and consumer electronics, such as
- Surge protectors
- Alarm system

Electriacl Characteristics

Type number	DC Spark-over Voltage	MaximumImpulse DischargeVoltage	Impulse withstanding voltage capacity	Maximum Insulation Resistance		Maximum Capacitance
	100v/s	1kv/μs	8/20μs,10times	Test Voltage	(GΩ)	1MHZ 1V
	(V)	(V)	(KA)	DC(V)		(pF)
SMD4532-070NF	70±30%	650	>2	DC 50V >1		<1 pF
SMD4532-075NF	75±30%	600				
SMD4532-090NF	90±30%	600				
SMD4532-150NF	150±30%	750				
SMD4532-200NF	200±30%	750		DC 100V >1		
SMD4532-230NF	230±30%	750				
SMD4532-300NF	300±30%	800				
SMD4532-350NF	350±30%	850				
SMD4532-400NF	400±30%	900				
SMD4532-470NF	470±30%	950				
SMD4532-600NF	600±30%	1050				

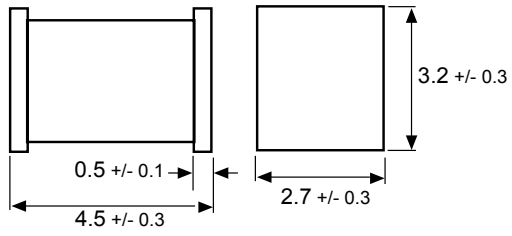
Soldering Parameters - Reflow Soldering (Surface Mount Devices)

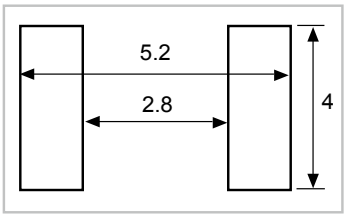
Reflow Condition		Pb – Free assembly
Pre Heat	-Temperature Min ($T_{s(min)}$)	150°C
	-Temperature Max ($T_{s(max)}$)	200°C
	-Time (Min to Max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak		3°C/second max
$T_{S(max)}$ to T_L - Ramp-up Rate		5°C/second max
Reflow	-Temperature (T_L) (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

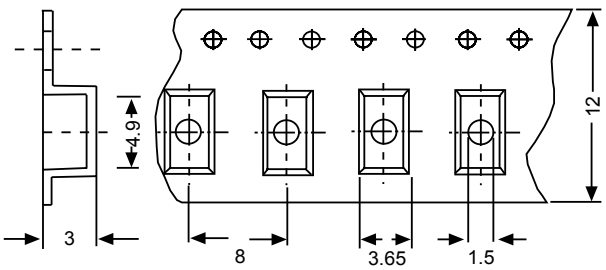
Dimensions in Millimeters.





Recommended Soldering Pad Layout

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



Packaging

Part Number and Device Type		Quantity and
SMD4532	S urface mount2	

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