

DESCRIPTION

The SG3R08B Series GDT offers high surge ratings in a miniature package. 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. This device is extremely robust and are able to divert a 10000A pulse without destruction.

FEATURES

- > Provide ultra-fast response to surge voltage from slow-rising.
- > surge of 100V/s to rapid-rising surge of 1KV/ μ s.
- > Stable breakdown voltage.
- > High insulation resistance.
- > Low capacitance (≤ 2 pF).
- > High holdover voltage.
- > Large absorbing transient current capability.
- > Micro-Gap Design.
- > Size: $\varnothing 8.0$ mm*10.0mm.

APPLICATIONS

- > Repeaters, Modems.
- > Telephone Interface, Line cards.
- > Data communication equipment.

ELECTRICAL CHARACTERISTIC

PART NUMBER	DC BREAKDOWN VOLTAGE	TOLERANCE OF V_s	IMPULSE SPARK-OVER VOLTAGE	IMPULSE DISCHARGE CURRENT	INSULATION RESISTANCE		C@1MHz Max.
	100V/s				Gohm Min.	DC	
SG3R08B090	90V	$\pm 20\%$	700V	10000A	1	50V	2.0pF
SG3R08B150	150V	$\pm 20\%$	700V	10000A	1	100V	2.0pF
SG3R08B230	230V	$\pm 20\%$	700V	10000A	1	100V	2.0pF
SG3R08B350	350V	$\pm 20\%$	800V	10000A	1	100V	2.0pF
SG3R08B420	420V	$\pm 20\%$	900V	10000A	1	250V	2.0pF
SG3R08B470	470V	$\pm 20\%$	900V	10000A	1	250V	2.0pF
SG3R08B600	600V	$\pm 20\%$	1000V	10000A	1	250V	2.0pF

PART NUMBER CODE

S G 3R08 B 090

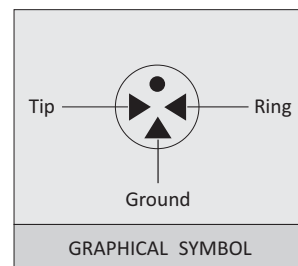
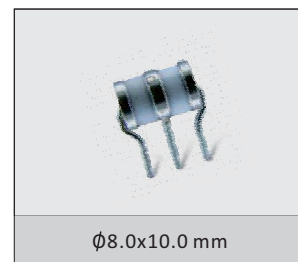
DC Breakdown Voltage: 090=90V; 150=150V; etc.

Polar: B=Bidirectional, U=Unidirectional

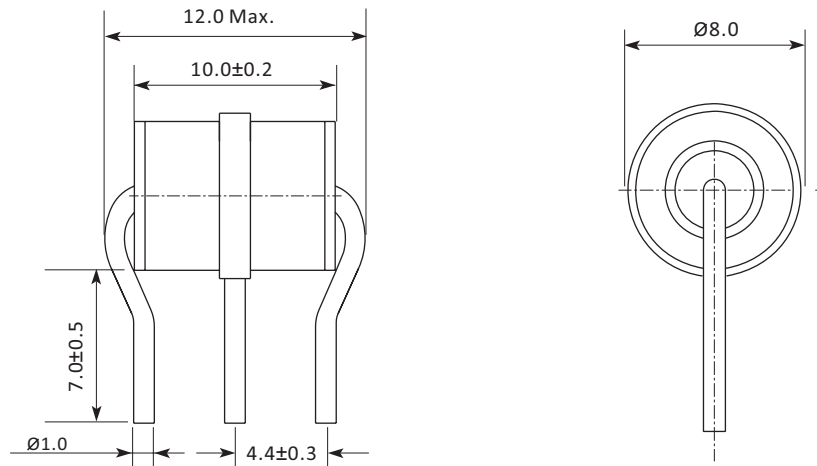
Product Size: 3R08= $\varnothing 8.0$ *10.0mm

Product Line: G=Gas Discharge Tube

Semiwill Brand



PRODUCT DIMENSIONS



ENVIRONMENTAL RELIABILITY CHARACTERISTICS

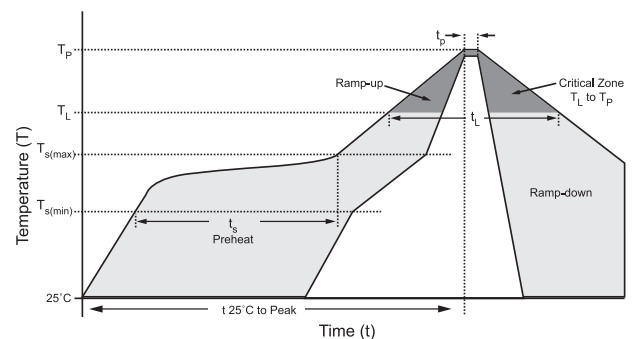
Testing Items	Technical Standards
High Temperature Storage Test	Temperature:85°C;Time:2H
Low Temperature Storage Test	Temperature:-40°C;Time:2H
Vibration	Frequency:10-500Hz;Amplitude:0.15mm;Time:45min
Resistance of soldering heat	Temperature:260°C;Time of dip soldering:10s,1time

SOLDERABILITY TEST

Solderability	Solder Pot Temperature:	245±5°C
	Solder Dwell Time:	4~6 seconds

REFLOW PROFILE

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Min (Ts(min))	150°C
	Temperature Max (Ts(max))	200°C
	Time (min to max) (ts)	60 – 180 secs
Average ramp up rate (Liquidus Temp (TL) to peak)		3°C/second max
Ts(max)to TL - Ramp-up Rate		3°C/second max
Reflow	Temperature (TL) (Liquidus)	217°C
	Time (min to max) (ts)	60 – 150 seconds
Peak Temperature (TP)		260°C
Time within 5°C of actual peak Temperature (tp)		~10 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (TP)		8 minutes Max.
Do not exceed		260°C



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