

## DESCRIPTION

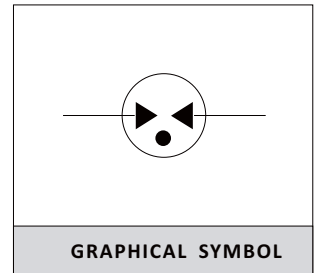
The SG2R08 series GDT offers high surge ratings. Special design features provide high levels of protection against fast rising transients in the 100V/μs to 1kV/μs range usually caused by lightning disturbances. Low insertion loss is perfectly suited to broadband equipment applications. The capacitance does not vary with voltage, and will not cause operational problems with ADSL2+, where capacitance variation across Tip and Ring is undesirable. For AC Power Cross of long duration, over current protection is recommended.

## FEATURES

- > RoHS compliant and Lead-free
- > High insulation resistance
- > Low capacitance
- > Max Surge current capacity 10KA(8/20μs)
- > Size 8.3x6.0mm

## APPLICATIONS

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



## PART NUMBER CODE

**S G 2R08 B 150 D**

Surface Mounted Devices

DC Breakdown Voltage: 090=90V, 150=150V, 200=200V, Etc.

Polar: B=Bidirectional, U=Unidirectional

Product Size: 2R08=Ø8.3x6.0mm

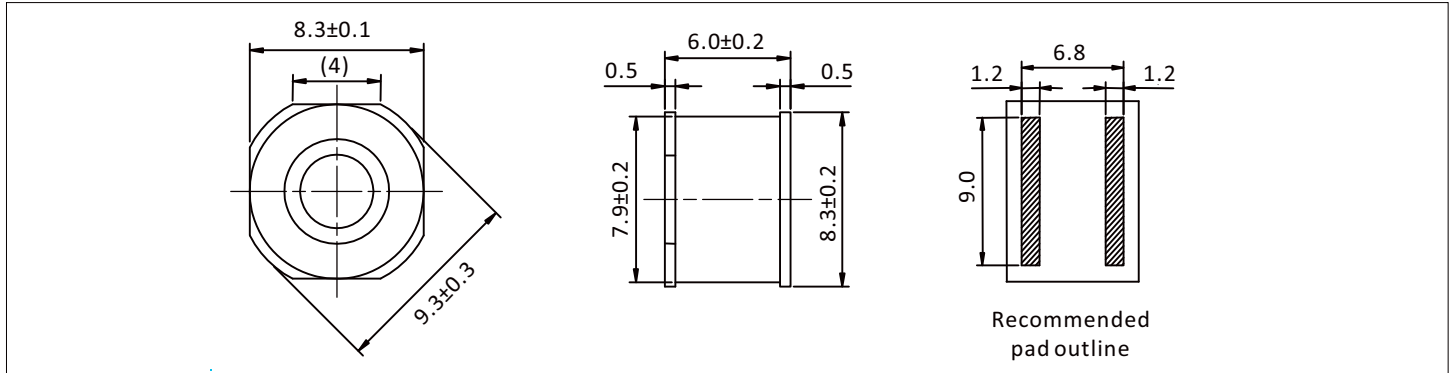
Product Line: G=Gas Discharge Tube

Semiware Brand

## ELECTRICAL CHARACTERISTIC

PART NUMBER	DC BREAKDOWN VOLTAGE	TOLERANCE OF Vs	IMPULSE SPARK-OVER VOLTAGE	IMPULSE DISCHARGE CURRENT	INSULATION RESISTANCE		C@1MHz Max.
					Min.	DC	
SG2R08B070D	70V	±20%	900V	10KA	1Gohm	25V	1.5pF
SG2R08B090D	90V	±20%	900V	10KA	1Gohm	50V	1.5pF
SG2R08B150D	150V	±20%	900V	10KA	1Gohm	100V	1.5pF
SG2R08B230D	230V	±20%	900V	10KA	1Gohm	100V	1.5pF
SG2R08B350D	350V	±20%	1000V	10KA	1Gohm	100V	1.5pF
SG2R08B420D	420V	±20%	1000V	10KA	1Gohm	100V	1.5pF
SG2R08B470D	470V	±20%	1050V	10KA	1Gohm	100V	1.5pF
SG2R08B600D	600V	±20%	1150V	10KA	1Gohm	100V	1.5pF
SG2R08B800D	800V	±20%	1200V	10KA	1Gohm	100V	1.5pF



**PRODUCT DIMENSIONS(Unit:mm)**

**ENVIRONMENTAL RELIABILITY CHARACTERISTICS**

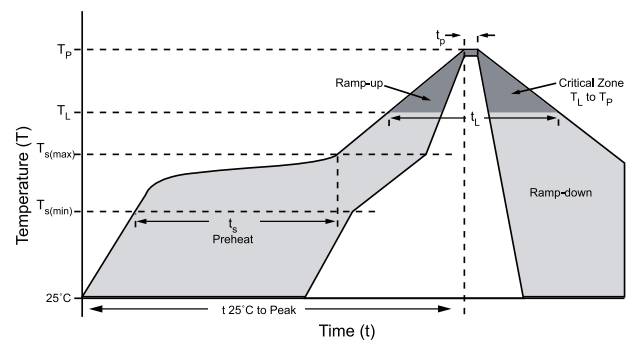
Testing Items	Technical Standards
High Temperature Storage Test	Temperature: $85^{\circ}\text{C}$ ; Time: 2H
Low Temperature Storage Test	Temperature: $-40^{\circ}\text{C}$ ; Time: 2H
Vibration	Frequency: 10-500Hz; Amplitude: 0.15mm; Time: 45min
Resistance of soldering heat	Temperature: $260^{\circ}\text{C}$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

**SOLDERABILITY TEST**

Solderability	Solder Pot Temperature:	$245 \pm 5^{\circ}\text{C}$
	Solder Dwell Time:	4~6 seconds

**REFLOW PROFILE**

Reflow Condon		Lead-free assembly
Pre Heat	Temperature Min ( $T_s(\text{min})$ )	$150^{\circ}\text{C}$
	Temperature Max ( $T_s(\text{max})$ )	$200^{\circ}\text{C}$
	Time (min to max) ( $t_s$ )	60 – 180 secs
Average ramp up rate (Liquidus Temp ( $T_L$ ) to peak)		$3^{\circ}\text{C}/\text{second max}$
$T_s(\text{max})$ to $T_L$ - Ramp-up Rate		$3^{\circ}\text{C}/\text{second max}$
Reflow	Temperature ( $T_L$ ) (Liquidus)	$217^{\circ}\text{C}$
	Time (min to max) ( $t_s$ )	60 – 150 seconds
Peak Temperature ( $T_P$ )		$260^{\circ}\text{C}$
Time within $5^{\circ}\text{C}$ of actual peak Temperature ( $t_p$ )		10~30 seconds
Ramp-down Rate		$6^{\circ}\text{C}/\text{second max}$
Time $25^{\circ}\text{C}$ to peak Temperature ( $T_P$ )		8 minutes Max.
Do not exceed		$260^{\circ}\text{C}$



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