

## DESCRIPTION

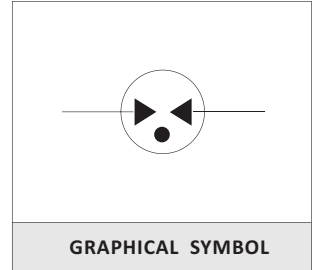
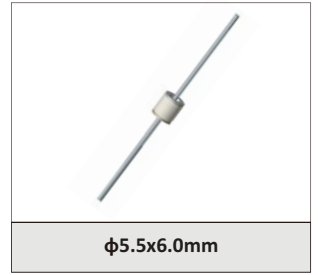
The SG2R05B090 GDT offer high surge ratings. Special design features provide high levels of protection against fast rising transients in the 100V/us to 1KV/us range usually caused by lightning disturbances. Low insertion loss is perfectly suited to broadband equipment applications. The capacitance does 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.
- > Max Surge current capacity 5000A 8/20 us.
- > Low capacitance.
- > Size  $\phi 5.5 \times 6.0 \text{mm}$ .

## APPLICATIONS

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



## PART NUMBER CODE

**S G 2R05 B 090**

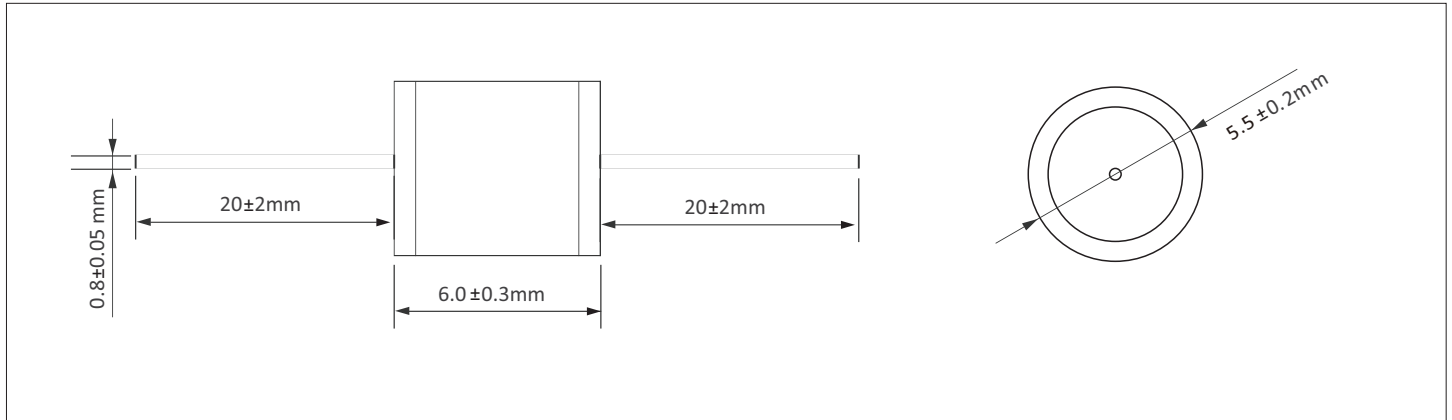
- DC Breakdown Voltage: 090=90V
- Polar: B=Bidirectional, U=Unidirectional
- Product Size: 2R05= $\phi 5.5 \times 6.0 \text{mm}$
- Product Line: G=Gas Discharge Tube
- Semiware Brand

## ELECTRICAL CHARACTERISTIC

Part Number	DC Breakdown Voltage	Tolerance of Vs	Impulse Spark-over Voltage	Impulse Discharge Current	Insulation Resistance		C@1MHZ Max.
	100V/s				Min.	DC	
SG2R05B090	90V	$\pm 20\%$	900V	5000A	1Gohm	50V	1.5pF



**PRODUCT DIMENSIONS**



**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, 1time

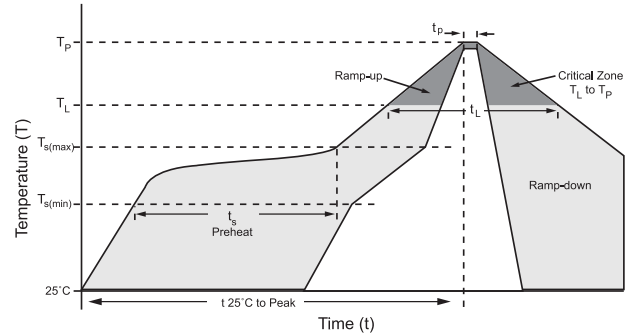
**SOLDERABILITY TEST**

Solderability	Solder Pot Temperature	$245 \pm 5^{\circ}\text{C}$
	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



**ORDERING INFORMATION**

Part Number	SIZE(mm)	QTY/Reel	Reel Size
SG2R05B090	φ5.5x6.0	1000PCS	13"



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