

## DESCRIPTION

The SG3216 series GDT offers high surge ratings in a miniature package. It's designed for surface mounting on PCB with size 3.2x1.6x1.6 mm. Special design features provide high levels of protection against fast rising transients in the 100V/ $\mu$ s to 1kV/ $\mu$ s 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 500A 8/20  $\mu$ s.
- > Surface Mounted Gas Arrester
- > Size 3.2x1.6x1.6mm

## APPLICATIONS

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

## PART NUMBER CODE

**S G 3216 B 150**

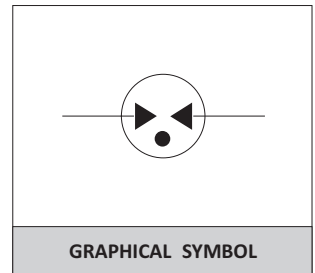
**DC Breakdown Voltage:** 150=150V, 200=200V, 300=300V, Etc.

**Polar:** B=Bidirectional, U=Unidirectional

**Product Size:** 3216=3.2x1.6x1.6mm

**Product Line:** G=Gas Discharge Tube

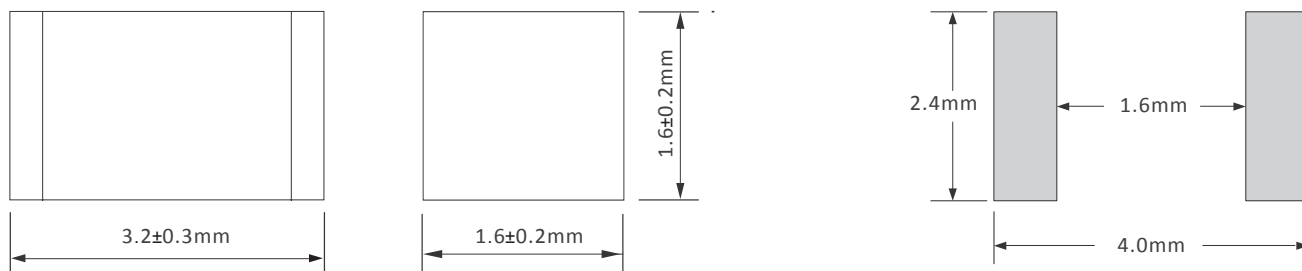
**Semiwill Brand**



## ELECTRICAL CHARACTERISTIC

PART NUMBER	DC BREAKDOWN VOLTAGE	TOLERANCE OF Vs	IMPULSE SPARK-OVER VOLTAGE	IMPULSE DISCHARGE CURRENT	INSULATION RESISTANCE		C@1MHz Max.
	100V/s				Gohm Min.	DC	
SG3216B150	150V	±30%	700V	500A	1	100V	0.6pF
SG3216B200	200V	±30%	700V	500A	1	100V	0.6pF
SG3216B300	300V	±30%	800V	500A	1	100V	0.6pF
SG3216B350	350V	±30%	800V	500A	1	100V	0.6pF
SG3216B400	400V	±30%	950V	500A	1	100V	0.6pF
SG3216B600	600V	±30%	950V	500A	1	100V	0.6pF

## PRODUCT DIMENSIONS



Recommended Pad Size

## ENVIRONMENTAL RELIABILITY CHARACTERISTICS

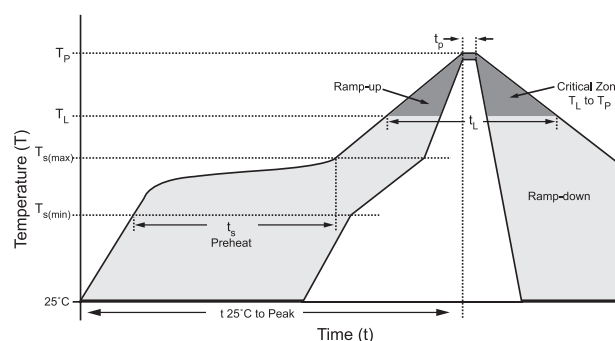
Testing Items	Technical Standards
High Temperature Storage Test	Temperature:85°C;Time:2H
Low Temperature Storage Test	Temperature:-40°C;Time:2H
Vibration	Frequency:10-500Hz;Amplitude:0.15mm;Time:45min
Resistance of soldering heat	Temperature:260°C;Time of dip soldering:10s, 1 me

## 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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