

SG4532B090 Thru SG4532B600

Gas Discharge Tube

DESCRIPTION

The SG4532 series GDT offers high surge ratings in a miniature package. It's designed for surface mounting on PCB with size 4.5x3.2x2.7 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 insertionloss 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 2000A 8/20 us.
- > Surface Mounted Gas Arrester
- > Size 4.5x3.2x2.7mm

APPLICATIONS

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

PART NUMBER CODE



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

Polar: B=Bidirectional,U=Unidirectional

Product Size: 4532=4.5x3.2x2.7mm

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 | | 1KV/uS Max. | 8/20uS Min. | Gohm Min. | DC | |
| SG4532B090 | 90V | ±20% | 700V | 2000A | 1 | 50V | 0.5pF |
| SG4532B150 | 150V | ±20% | 700V | 2000A | 1 | 100V | 0.5pF |
| SG4532B200 | 200V | ±20% | 700V | 2000A | 1 | 100V | 0.5pF |
| SG4532B300 | 300V | ±20% | 800V | 2000A | 1 | 100V | 0.5pF |
| SG4532B350 | 350V | ±20% | 800V | 2000A | 1 | 100V | 0.5pF |
| SG4532B400 | 400V | ±20% | 950V | 2000A | 1 | 100V | 0.5pF |
| SG4532B600 | 600V | ±20% | 950V | 2000A | 1 | 100V | 0.5pF |







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,1time | | |

SOLDERABILITY TEST

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

REFLOW PROFILE

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



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