

CG9 Series

Gas Discharge Tubes



Description

Littelfuse CG9 two electrode high voltage (1.0–5.5 kV) devices are designed for surge protection and high isolation applications, and for applications for which bias voltages or signal levels of several hundred volts are normally present.

Features

- Rugged Ceramic-metal construction
- Voltage Range 1000–5500 V
- 10 kA 8/20 μ s surge capability
- Low capacitance (<1.0 pF)
- Available in T&R packaging
- Available with leads
- RoHS compliant and Lead-free

Additional Information



Resources



Accessories



Samples

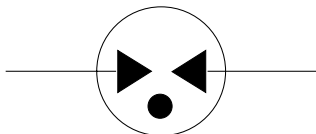
Applications

- Antenna circuit
- Power supplies
- CATV equipment
- Air conditioning
- Test equipment
- Set-top box
- Renewable energy

Agency Approvals

| Agency | Agency File Number |
|--------|--------------------|
| | E320116 |

Two Electrode GDT Graphical Symbol



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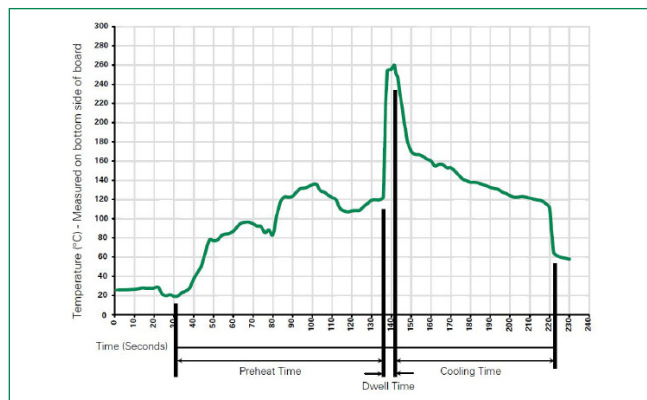
Electrical Characteristics

| Part Number | Device Specifications (at 25 °C) | | | | | Service Life | | | |
|-------------|----------------------------------|---|--|-----------------------|----------------------|-------------------------|-------------------------------------|-------------------------|-----------------------|
| | DC Breakdown in Volts (@100 V/s) | Impulse Break-down in Volts (@100 V/μs) | Impulse Break-down In Volts (@1 kV/μs) | Insulation Resistance | Capacitance (@1 MHz) | 10 Operations 50 hZ, 1s | 1 Operation 50 hZ, 0.18 s, 9 Cycles | 10 Operations @ 8/20 μs | 1 Operation @ 8/20 μs |
| CG91.0 | 850~1150 | 1300 | 1400 | >10 GΩ | <1 pF | 10 A | 65 A | 10 kA | 15 kA |
| CG91.2 | 960~1440 | 1900 | 2000 | >10 GΩ | <1 pF | 10 A | 65 A | 10 kA | 15 kA |
| CG91.5 | 1200~1800 | 2200 | 2300 | >10 GΩ | <1 pF | 10 A | 65 A | 10 kA | 15 kA |
| CG91.8 | 1440~2160 | 2600 | 2700 | >10 GΩ | <1 pF | 10 A | 65 A | 10 kA | 15 kA |
| CG92.0 | 1600~2400 | 3500 | 3800 | >10 GΩ | <1 pF | 10 A | 65 A | 10 kA | 15 kA |
| CG92.5 | 2000~3000 | 3900 | 4000 | >10 GΩ | <1 pF | 10 A | 20 A | 10 kA | 15 kA |
| CG93.5 | 2800~4200 | 4900 | 5000 | >10 GΩ | <1 pF | 10 A | 20 A | 10 kA | 15 kA |
| CG94.5 | 3600~5400 | 5800 | 6000 | >10 GΩ | <1 pF | 10 A | 20 A | 10 kA | 15 kA |
| CG95.5 | 4675~6325 | 6500 | 7000 | >10 GΩ | <1 pF | 5 A | 10 A | 10 kA | 15 kA |

Product Characteristics

| Item | Test Condition |
|---------------------------------|---|
| Operating & Storage Temperature | -40 °C to 125 °C |
| Product Marking | LF Logo, Voltage and date code; Black ink positive print |
| Material | Device & Wire: Tin plated 17.5±12.5 Microns |

Soldering Parameters: Wave Soldering (Thru-Hole Devices)



| Wave Parameter | Lead-Free Recommendation |
|---|-----------------------------------|
| Preheat: (Depends on Flex Activation Temperature) | (Typical Industry Recommendation) |
| Temperature Minimum | 100 °C |
| Temperature Maximum | 150 °C |
| Preheat Time | 60–180 seconds |
| Solder Pot Temperature | 260 °C Maximum |
| Solder Dwell Time | 2–5 seconds |

Recommended Hand-Solder Parameters:

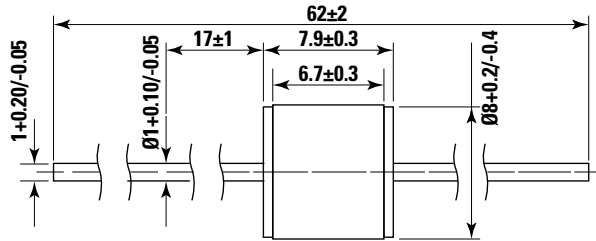
Solder Iron Temperature: 350 °C +/- 5 °C
Heating Time: 5 seconds max.

Note: These devices are not recommended for IR or Convection Reflow process.

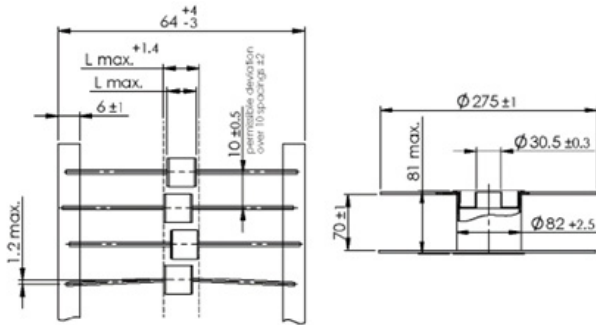
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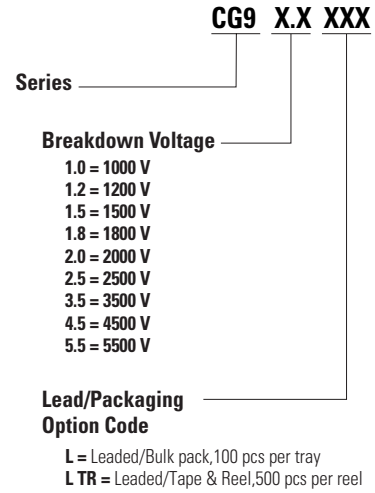
Device Dimensions



Packaging Dimensions



Part Numbering System and Ordering Information



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