

# PG5391 THRU PG5399

## GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER VOLTAGE - 50 to 1000 Volts    CURRENT - 1.5 Amperes

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Glass passivated junction in DO-15 package
- 1.5 ampere operation at  $T_A=55\text{ }^{\circ}\text{C}$  with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228

### MECHANICAL DATA

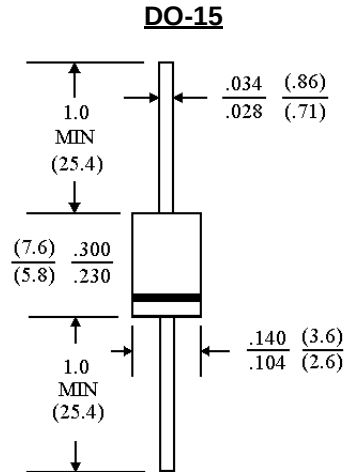
Case: Molded plastic, DO-15

Terminals: Axial leads, solderable per MIL-STD-202,  
Method 208

Polarity: Color Band denotes cathode

Mounting Position: Any

Weight: 0.015 ounce, 0.4 gram



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25  $^{\circ}\text{C}$  ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

|                                                                                                        | PG5391      | PG5392 | PG5393 | PG5394 | PG5395 | PG5396 | PG5397 | PG5398 | PG5399 | UNITS                |
|--------------------------------------------------------------------------------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|----------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                 | 50          | 100    | 200    | 300    | 400    | 500    | 600    | 800    | 1000   | V                    |
| Maximum RMS Voltage                                                                                    | 35          | 70     | 140    | 210    | 280    | 350    | 420    | 560    | 700    | V                    |
| Maximum DC Blocking Voltage                                                                            | 50          | 100    | 200    | 300    | 400    | 500    | 600    | 800    | 1000   | V                    |
| Maximum Average Forward Rectified Current .375"(9.5mm) lead length at $T_A=55\text{ }^{\circ}\text{C}$ | 1.5         |        |        |        |        |        |        |        |        | A                    |
| Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)       | 50          |        |        |        |        |        |        |        |        | A                    |
| Maximum Forward Voltage at 1.5A                                                                        | 1.4         |        |        |        |        |        |        |        |        | V                    |
| Maximum Reverse Current $T_A=25\text{ }^{\circ}\text{C}$                                               | 5.0         |        |        |        |        |        |        |        |        | $\mu\text{A}$        |
| Rated DC Blocking Voltage $T_A=100\text{ }^{\circ}\text{C}$                                            | 50          |        |        |        |        |        |        |        |        | $\mu\text{A}$        |
| Typical Junction capacitance (Note 1)                                                                  | 25          |        |        |        |        |        |        |        |        | pF                   |
| Typical Thermal Resistance R $\theta\text{KJA}$ (Note 2)                                               | 45.0        |        |        |        |        |        |        |        |        | $^{\circ}\text{C/W}$ |
| Operating and Storage Temperature Range $T_A$                                                          | -55 to +150 |        |        |        |        |        |        |        |        | $^{\circ}\text{C}$   |

### NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
2. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B mounted

## RATING AND CHARACTERISTIC CURVES

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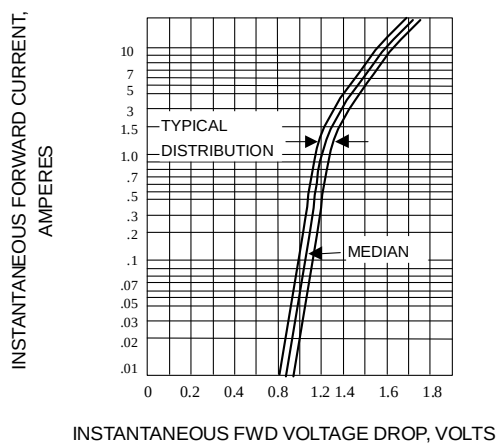


Fig. 1-TYPICAL FORWARD CHARACTERISTICS

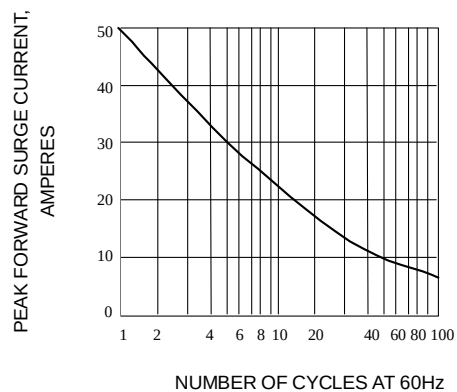


Fig. 2-PEAK FORWARD SURGE CURRENT

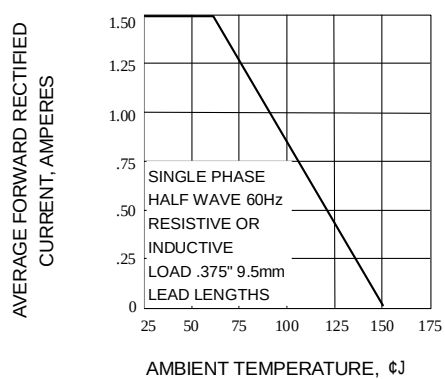


Fig. 3-FORWARD CURRENT DERATING CURVE

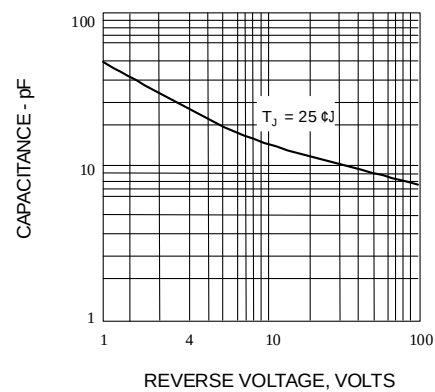


Fig. 4-TYPICAL JUNCTION CAPACITANCE