

# PG200 THRU PG2010

## GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER VOLTAGE - 50 to 1000 Volts CURRENT - 2.0 Amperes

### FEATURES

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

### MECHANICAL DATA

Case: Molded plastic , DO-15

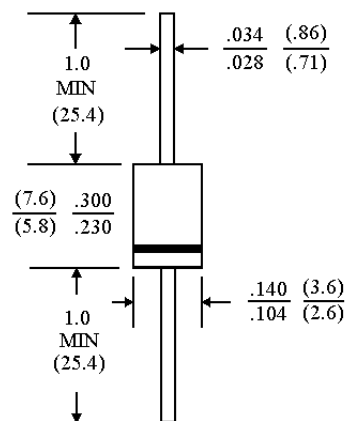
Terminals: Axial leads, solderable per MIL-STD-202, Method 208

Polarity: Color band denotes cathode

Mounting Position: Any

Weight: 0.015 ounce, 0.4 gram

### DO-15



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

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

For capacitive load, derate current by 20%.

|   | PG200       | PG201 | PG202 | PG204 | PG206 | PG208 | PG2010 | UNITS                |
|---|-------------|-------|-------|-------|-------|-------|--------|----------------------|
| Maximum Recurrent Peak Reverse Voltage  | 50          | 100   | 200   | 400   | 600   | 800   | 1000   | V                    |
| Maximum RMS Voltage   | 35          | 70    | 140   | 280   | 420   | 560   | 700    | V                    |
| Maximum DC Blocking Voltage   | 50          | 100   | 200   | 400   | 600   | 800   | 1000   | V                    |
| Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at $T_A=55\text{ }^{\circ}\text{C}$                  | 2.0         |       |       |       |       |       |        | A                    |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)                        | 70          |       |       |       |       |       |        | A                    |
| Maximum Forward Voltage at 2.0A   | 1.1         |       |       |       |       |       |        | V                    |
| Maximum Reverse Current $T_a=25\text{ }^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_a=100\text{ }^{\circ}\text{C}$ | 5.0         |       |       |       |       |       |        | $\mu\text{g A}$      |
| Typical Junction capacitance (Note 1)   | 25          |       |       |       |       |       |        | pF                   |
| Typical Thermal Resistance (Note 2) R $\theta\text{KJA}$  | 25          |       |       |       |       |       |        | $^{\circ}\text{C/W}$ |
| 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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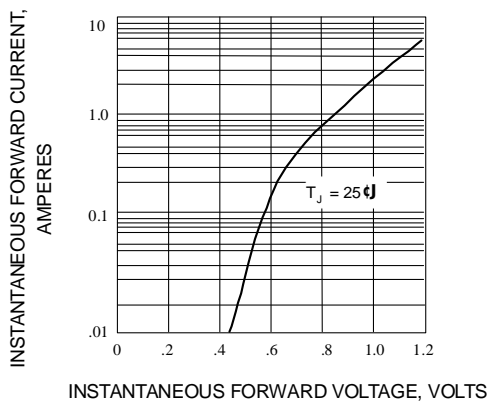


Fig. 1-TYPICAL FORWARD CHARACTERISTICS

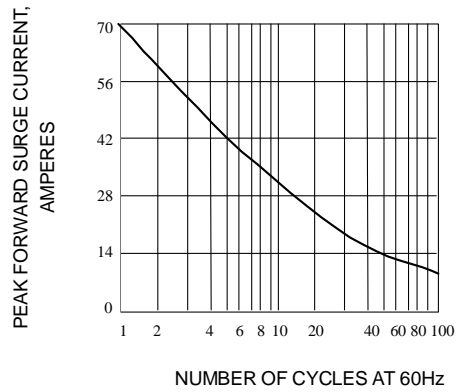


Fig. 2-PEAK FORWARD SURGE CURRENT

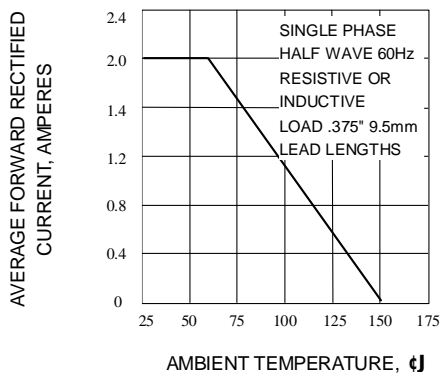


Fig. 3-FORWARD CURRENT DERATING CURVE

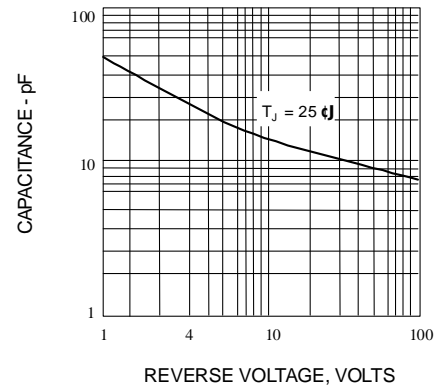


Fig. 4-TYPICAL JUNCTION CAPACITANCE