

PG200R THRU PG208R

GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 2.0 Amperes

FEATURES

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

MECHANICAL DATA

Case: Molded plastic, DO-15

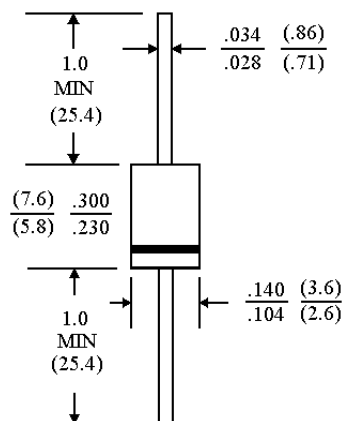
Terminals: axial leads, solderable per MIL-STD-202, Method 208

Polarity: 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, 60Hz, resistive or inductive load.

| | PG200R | PG201R | PG202R | PG204R | PG206R | PG208R | UNITS |
|--|-------------|--------|--------|--------|--------|--------|----------------------|
| Peak Reverse Voltage, Repetitive; V_{RM} | 50 | 100 | 200 | 400 | 600 | 800 | V |
| Maximum RMS Voltage | 35 | 70 | 140 | 280 | 420 | 560 | V |
| DC Reverse Voltage; V_R | 50 | 100 | 200 | 400 | 600 | 800 | V |
| Average Forward Current, I_O @ $T_A=55\text{ }^{\circ}\text{C}$ 3.8"lead length 60 Hz, resistive or inductive load | 2.0 | | | | | | A |
| Peak Forward Surge Current, I_{FM} (surge) 8.3msec. single half sine wave superimposed on rated load(JEDEC method) | 70 | | | | | | A |
| Maximum Forward Voltage V_F @2.0A, $25\text{ }^{\circ}\text{C}$ | 1.3 | | | | | | V |
| Maximum Reverse Current, @Rated $T_a=25\text{ }^{\circ}\text{C}$ | 5.0 | | | | | | $\mu\text{g A}$ |
| Reverse Voltage $T_a=100\text{ }^{\circ}\text{C}$ | 2000 | | | | | | |
| Typical Junction capacitance (Note 1) C_J | 35 | | | | | | pF |
| Typical Thermal Resistance (Note 2) $R_{\theta JKJA}$ | 22 | | | | | | $^{\circ}\text{C/W}$ |
| Reverse Recovery Time $I_F=.5A, I_R=1A, I_{rr}=.25A$ | 150 | 150 | 150 | 150 | 250 | 500 | ns |
| Operating and Storage Temperature Range | -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 at 0.375"(9.5mm) lead length P.C.B. mounted

RATING AND CHARACTERISTIC CURVES

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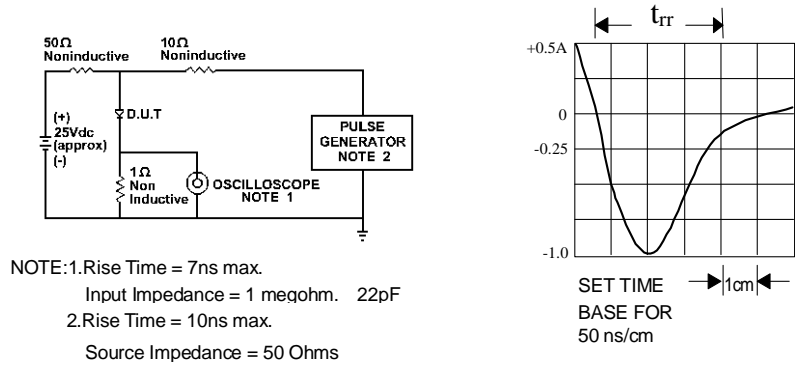


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

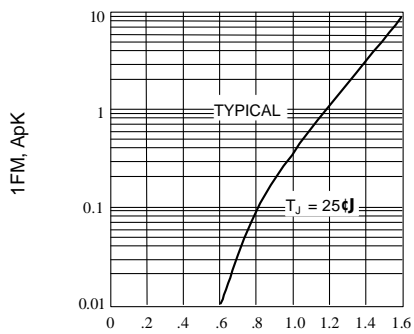


Fig. 2-FORWARD CHARACTERISTICS

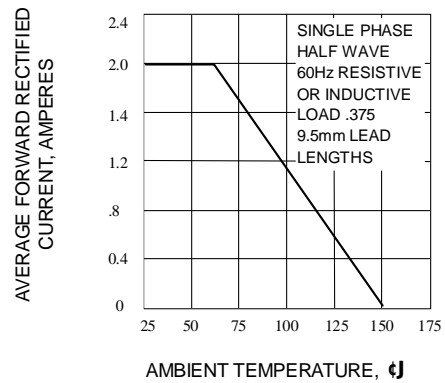


Fig. 3-FORWARD CURRENT DERATING CURVE

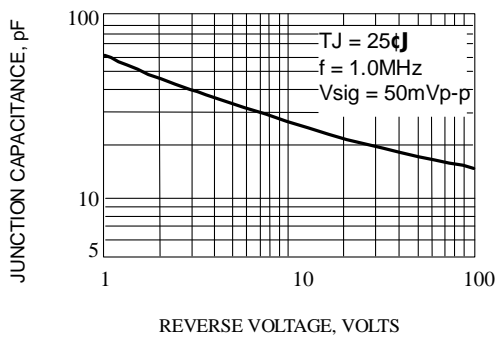


Fig. 4-TYPICAL JUNCTION CAPACITANCE vs. REVERSE VOLTAGE

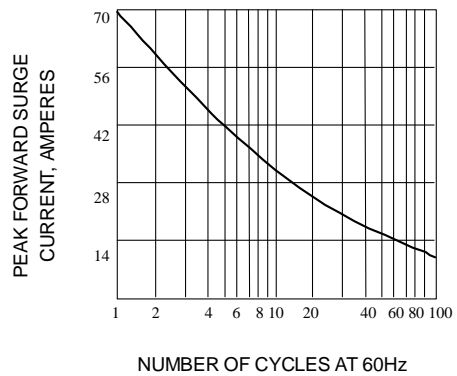


Fig. 5-PEAK FORWARD SURGE CURRENT