

# 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

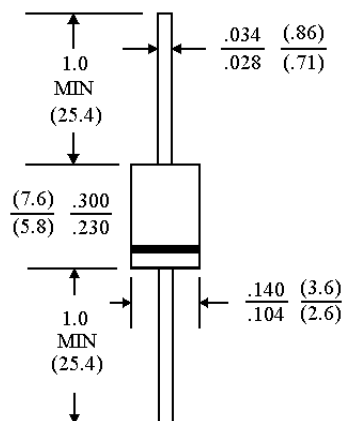
Terminals: axial leads, solderable per MIL-STD-202, Method 208

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  $^{\circ}\text{C}$  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 (JECEC method)	70						A
Maximum Forward Voltage $V_F$ @ 2.0A, 25 $^{\circ}\text{C}$	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) $R_{\theta KJA}$	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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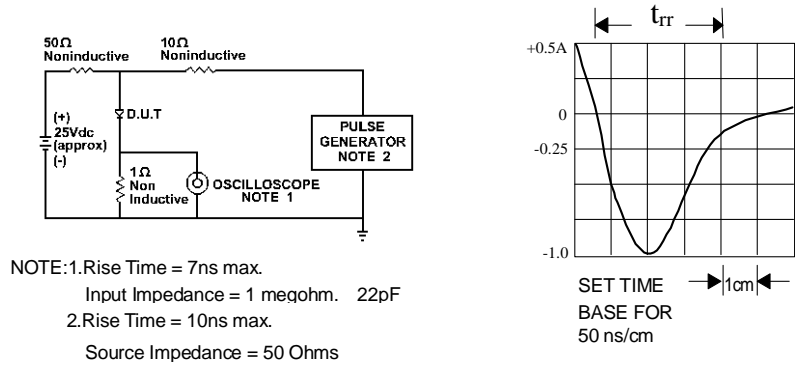


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

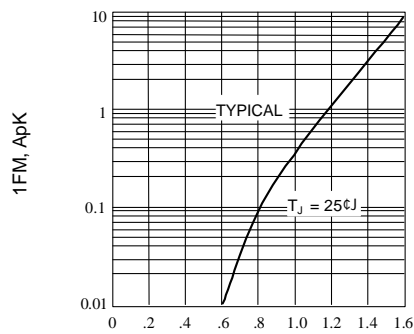


Fig. 2-FORWARD CHARACTERISTICS

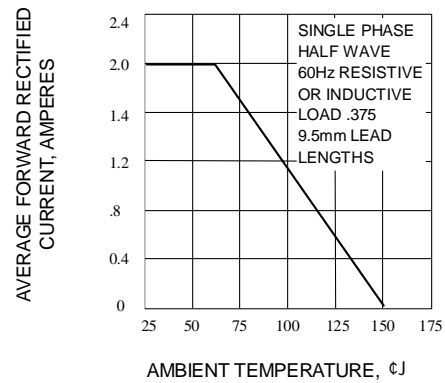


Fig. 3-FORWARD CURRENT DERATING CURVE

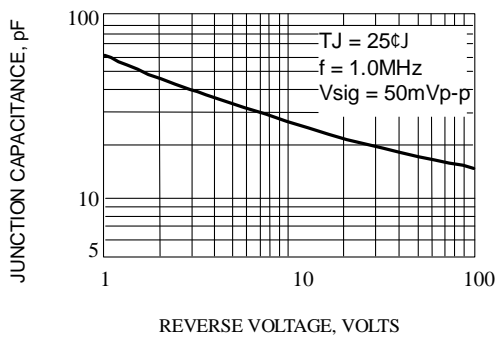


Fig. 4-TYPICAL JUNCTION CAPACITANCE vs. REVERSE VOLTAGE

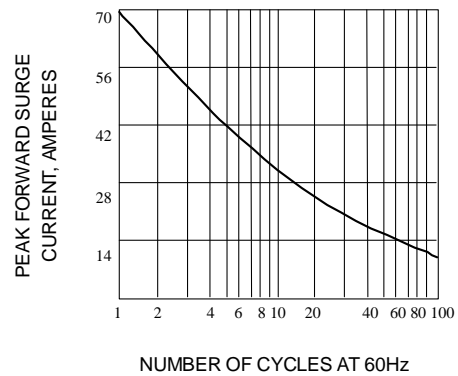


Fig. 5-PEAK FORWARD SURGE CURRENT