



TAYCHIPST

GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

PG200R THRU PG208R

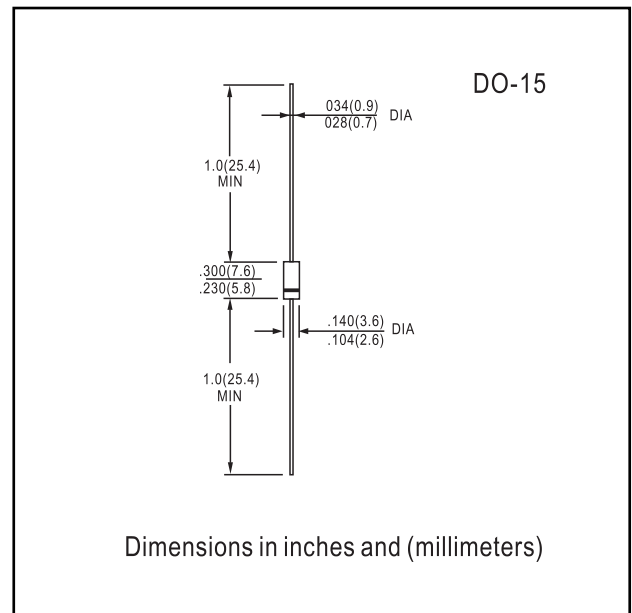
50V-800V 2.0A

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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

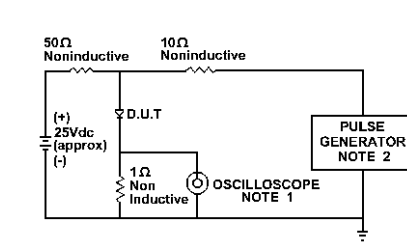
Single phase, half wave, 60Hz, resistive or inductive load.

	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 °C	1.3						V
Maximum Reverse Current, @Rated $T_a=25\text{ }^{\circ}\text{C}$ Reverse Voltage $T_a=100\text{ }^{\circ}\text{C}$	5.0 2000						A
Typical Junction capacitance (Note 1) C_J	35						pF
Typical Thermal Resistance (Note 2) $R_{\theta KJA}$	22						°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						°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

RATINGS AND CHARACTERISTIC CURVES PG200R THRU PG208R



NOTE:1.Rise Time = 7ns max.
 Input Impedance = 1 megohm. 22pF
 2.Rise Time = 10ns max.
 Source Impedance = 50 Ohms

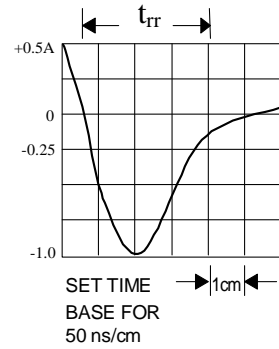


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

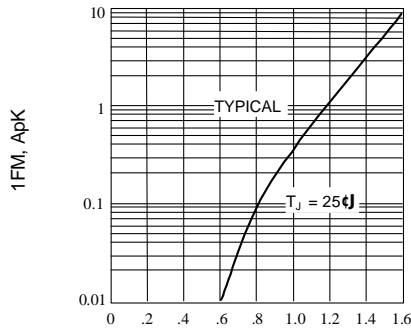


Fig. 2-FORWARD CHARACTERISTICS

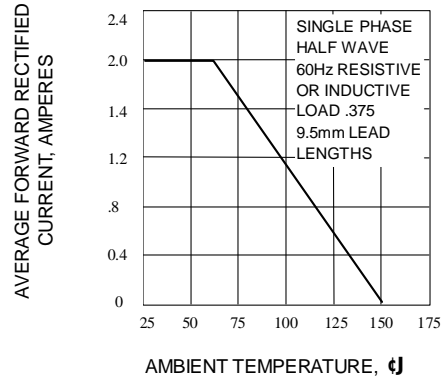


Fig. 3-FORWARD CURRENT DERATING CURVE

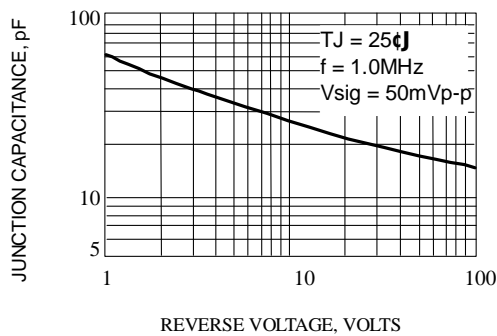


Fig. 4-TYPICAL JUNCTION CAPACITANCE vs. REVERSE VOLTAGE

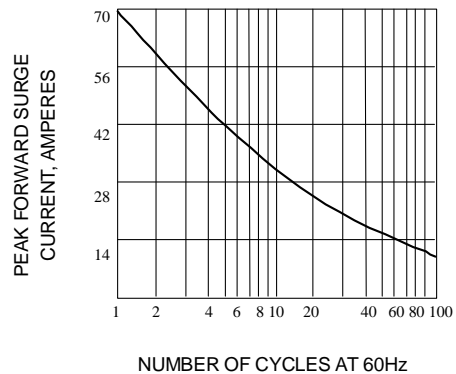


Fig. 5-PEAK FORWARD SURGE CURRENT