

PG300R THRU PG308R

GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER VOLTAGE - 50 to 800 Volts CURRENT - 3.0 Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound
- Glass passivated junction in a DO-201AD package
- 3 ampere operation at $T_A=55\text{ °C}$ with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Fast switching for high efficiency

MECHANICAL DATA

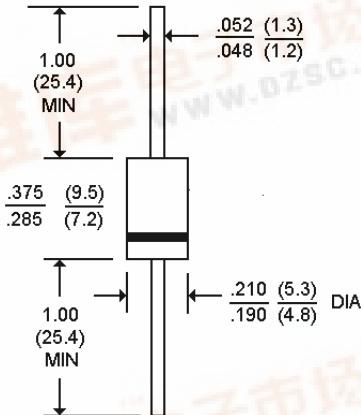
Case: Molded plastic, DO-201AD

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

Mounting Position: Any

Weight: 0.04 ounce, 1.1 grams

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

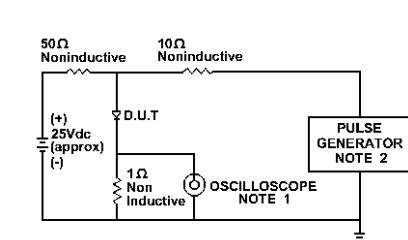
	PG300R	PG301R	PG302R	PG304R	PG306R	PG308R	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	V
Maximum RMS Voltage	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	V
Maximum Average Forward Rectified Current .375", 9.5mm Lead Length at $T_A=55\text{ °C}$							A
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load(JECEC method)							A
Maximum Forward Voltage at 3.0A							V
Maximum Reverse Current at Rated DC $T_a=25\text{ °C}$							fg A
Blocking Voltage $T_a=100\text{ °C}$							
Typical Junction capacitance (Note 1) CJ				60			pF
Typical Thermal Resistance (Note 2) R fKJA				22.0			°C/W
Maximum Reverse Recovery Time(Note 3)	150	150	150	150	250	500	ns
Operating and Storage Temperature Range T_A				-55 to +150			°C

NOTES:

- Measured at 1 MHz and applied reverse voltage of 4.0 VDC
- Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length P.C.B. mounted
- Reverse Recovery Test Conditions: $I_f=0.5\text{A}$, $I_r=1\text{A}$, $I_{rr}=0.25\text{A}$

RATING AND CHARACTERISTIC CURVES

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

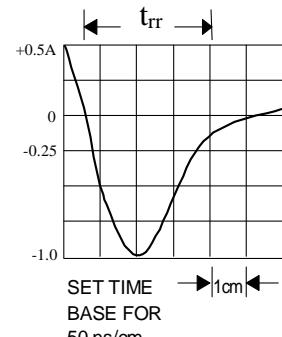


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

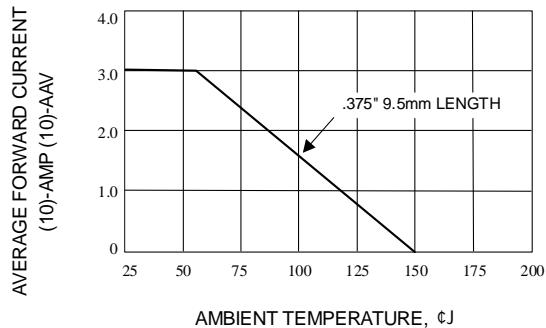


Fig. 2-FORWARD CURRENT CURVE

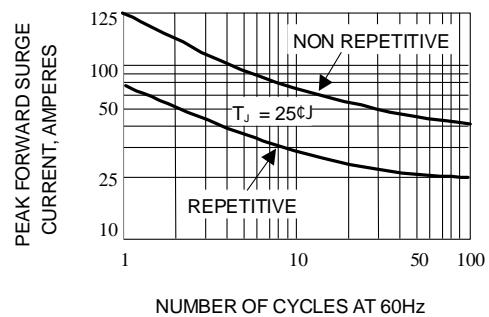


Fig. 3-PEAK FORWARD SURGE CURRENT

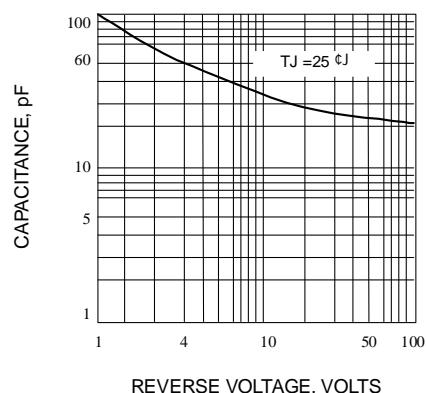


Fig. 4-TYPICAL JUNCTION CAPACITANCE

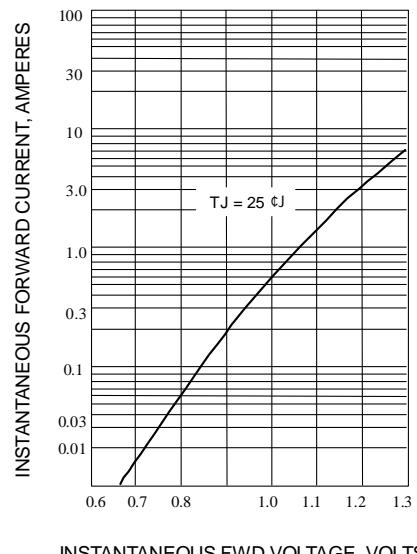


Fig. 5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC