

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 $T_A=55^{\circ}\text{C}$ with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Fast switching for high efficiency

MECHANICAL DATA

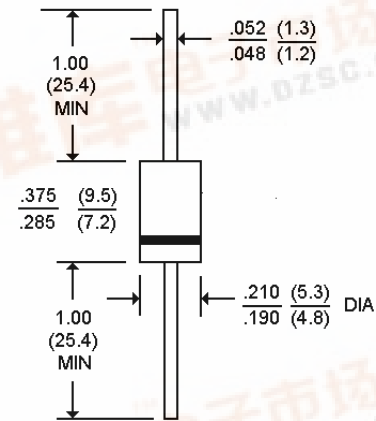
Case: Molded plastic, DO-201AD

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

Mounting Position: Any

Weight: 0.04 ounce, 1.1 grams

DO-201AD



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 $T_A=55^{\circ}\text{C}$	3.0						A
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	125						A
Maximum Forward Voltage at 3.0A	1.3						V
Maximum Reverse Current at Rated DC $T_a=25^{\circ}\text{C}$	5.0						μA
Blocking Voltage $T_a=100^{\circ}\text{C}$	300						
Typical Junction capacitance (Note 1) C _J	60						pF
Typical Thermal Resistance (Note 2) R _{θJA}	22.0						$^{\circ}\text{C/W}$
Maximum Reverse Recovery Time (Note 3)	150	150	150	150	250	500	ns
Operating and Storage Temperature Range T_A	-55 to +150						$^{\circ}\text{C}$

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
3. Reverse Recovery Test Conditions: $I_F=.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=.25\text{A}$

RATING AND CHARACTERISTIC CURVES

PG300R THRU PG308R

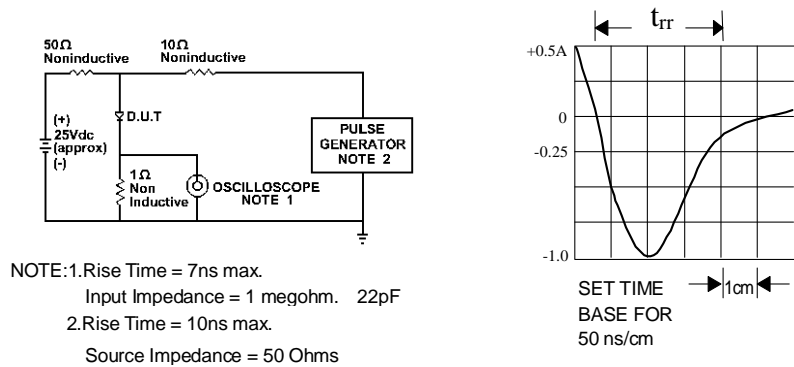


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

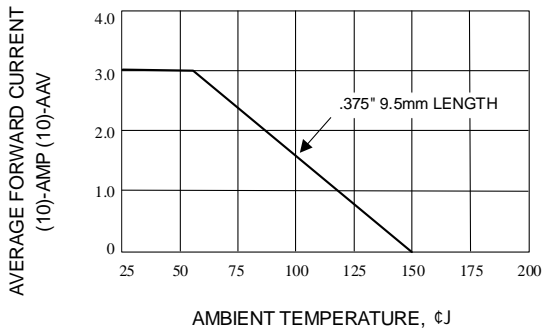


Fig. 2-FORWARD CURRENT CURVE

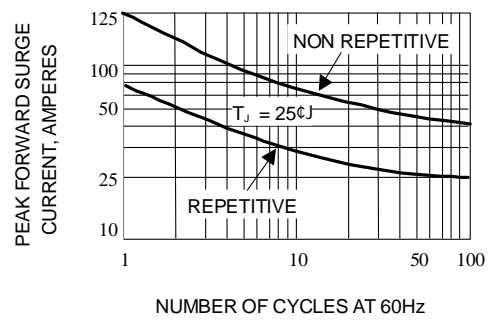


Fig. 3-PEAK FORWARD SURGE CURRENT

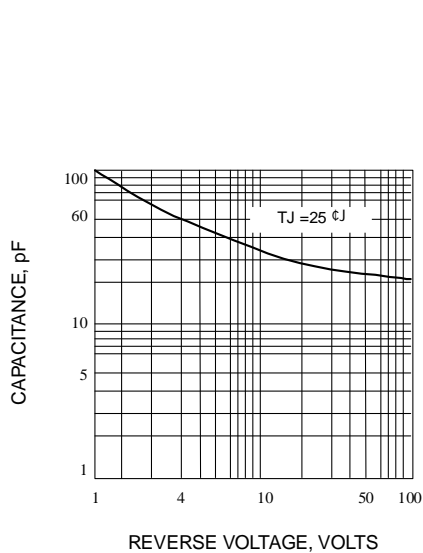


Fig. 4-TYPICAL JUNCTION CAPACITANCE

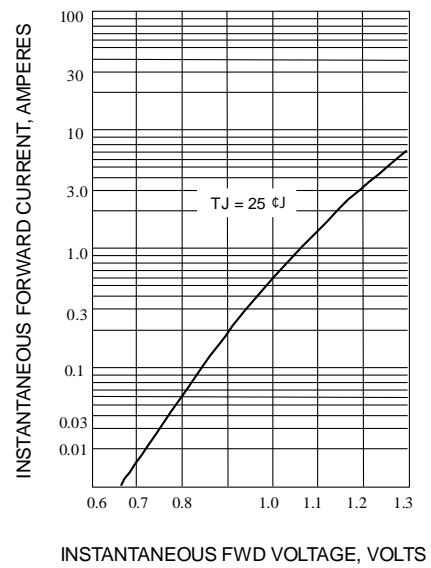


Fig. 5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC