

PG150R THRU PG158R

GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 1.5 Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound
- 1.5 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
- Glass passivated junction in DO-15 package

MECHANICAL DATA

Case: Molded plastic, DO-15

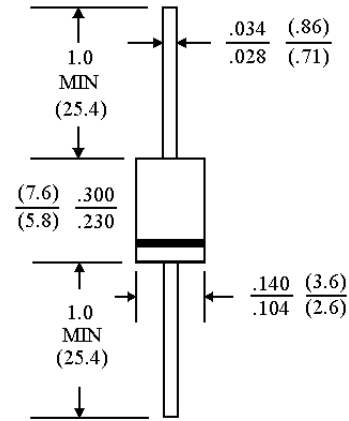
Terminals: axial leads, solderable per MIL-STD-202, Method 208

Polarity: 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°C ambient temperature unless otherwise specified.

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

	PG150R	PG151R	PG152R	PG154R	PG156R	PG158R	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 @ $T_A=55^{\circ}\text{C}$ 3.8"lead length 60 Hz, resistive or inductive load	1.5						A
Peak Forward Surge Current, I_{FM} (surge) 8.3msec. single half sine wave superimposed on rated load(JEDEC method)	50						A
Maximum Forward Voltage V_F @1.5A, 25°C	1.3						V
Maximum Reverse Current, @Rated $T_a=25^{\circ}\text{C}$	5.0						$\mu\text{g A}$
Reverse Voltage $T_a=100^{\circ}\text{C}$	150						
Typical Junction capacitance (Note 1) C_J	25						pF
Typical Thermal Resistance (Note 2) $R_{\theta KJA}$	45						$^{\circ}\text{C/W}$
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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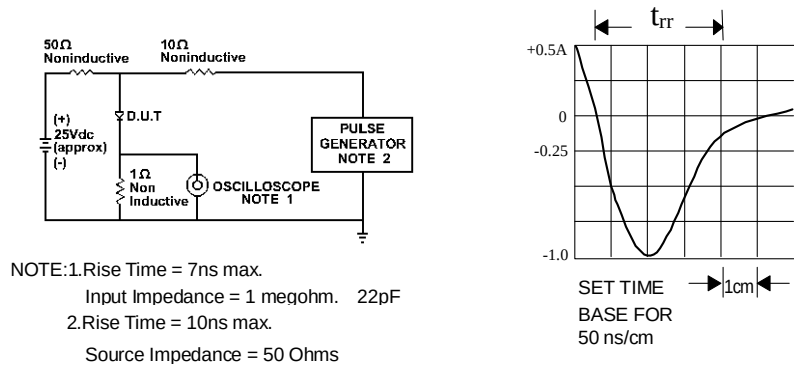


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

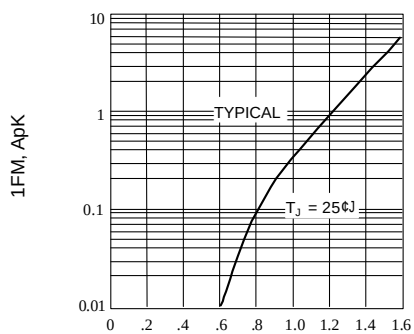


Fig. 2-FORWARD CHARACTERISTICS

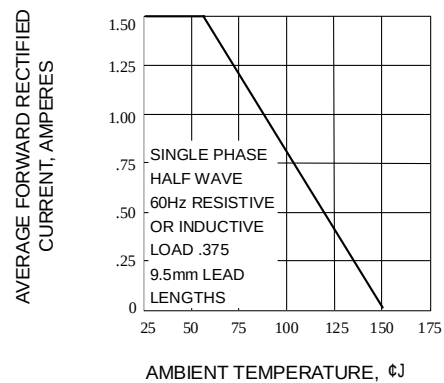


Fig. 3-FORWARD CURRENT DERATING CURVE

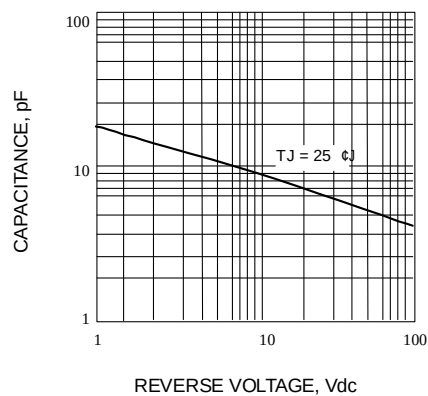


Fig. 4-TYPICAL JUNCTION CAPACITANCE vs. REVERSE VOLTAGE

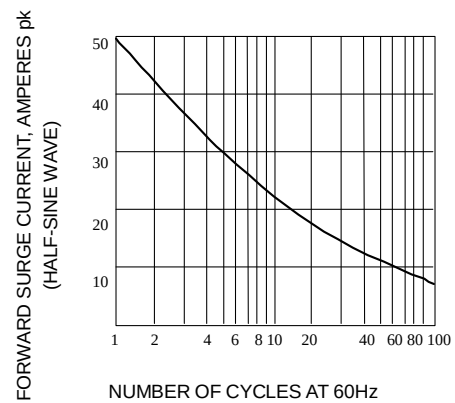


Fig. 5-PEAK FORWARD SURGE CURRENT