



DATA SHEET

BA157~BA159

FAST RECOVERY PLASTIC RECTIFIER

VOLTAGE 400 to 1000 Volts **CURRENT** 1.0 Amperes

DO-41

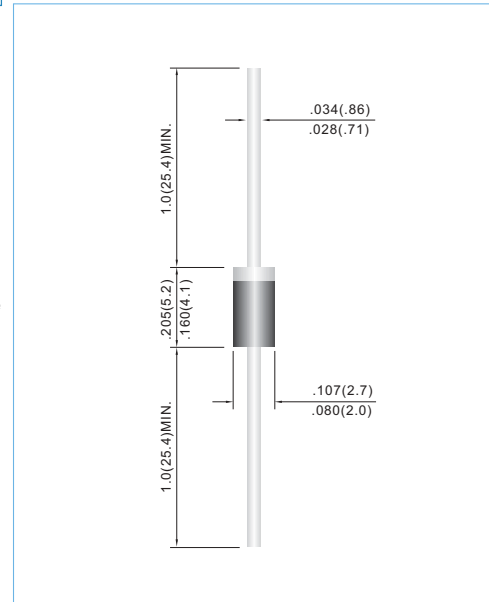
Unit: inch(mm)

FEATURES

- High current capability.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Low leakage.
- Exceeds environmental standards of MIL-S-19500/228
- Fast switching for high efficiency.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

MECHANICAL DATA

Case: Molded plastic, DO-41
 Terminals: Axial leads, solderable to MIL-STD-202G, Method 208
 Polarity: Color Band denotes cathode end
 Mounting Position: Any
 Weight: 0.012 ounce, 0.3 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	BA157	BA158	BA159	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	600	1000	V
Maximum RMS Voltage	V_{RMS}	280	420	700	V
Maximum DC Blocking Voltage	V_{DC}	400	600	1000	V
Maximum Average Forward Current .375" (9.5mm) lead length at $T_A=55^\circ C$	I_{AV}	1.0			A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30			A
Maximum Forward Voltage at 1.0A	V_F	1.3			V
Maximum DC Reverse Current $T_A=25^\circ C$ at Rated DC Blocking Voltage $T_A=100^\circ C$	I_R	5.0 500			μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	150	250		ns
Typical Junction capacitance (Note 2)	C_J	12			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	41			$^\circ C / W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 TO +150			$^\circ C$

- NOTES: 1. Reverse Recovery Test Conditions: $I_F=.5A$, $I_R=1A$, $I_{rr}=.25A$
 2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
 3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length with both leads equally heatsink.



RATING AND CHARACTERISTIC CURVES

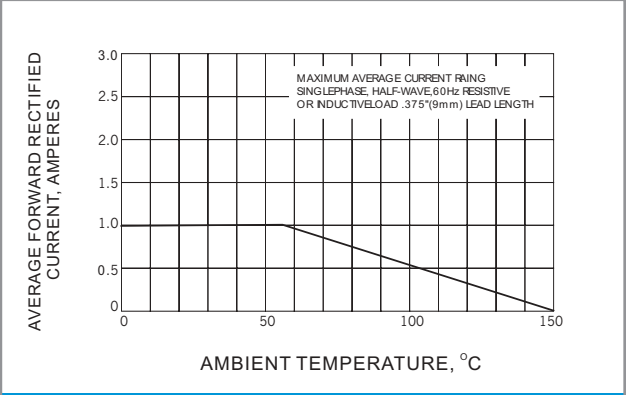


Fig. 1 FORWARD CURRENT DERATING CURVE

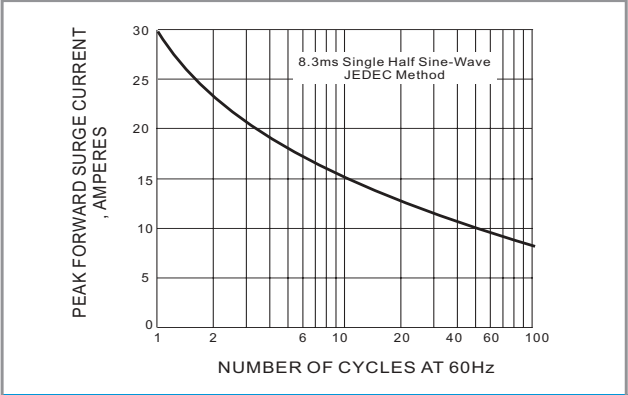


Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

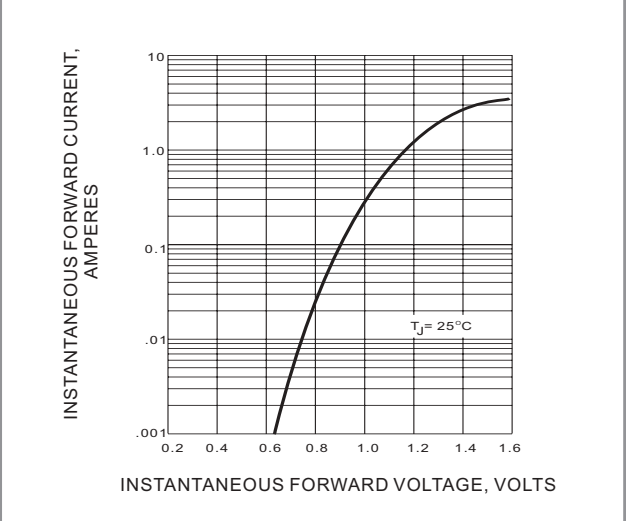


Fig. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

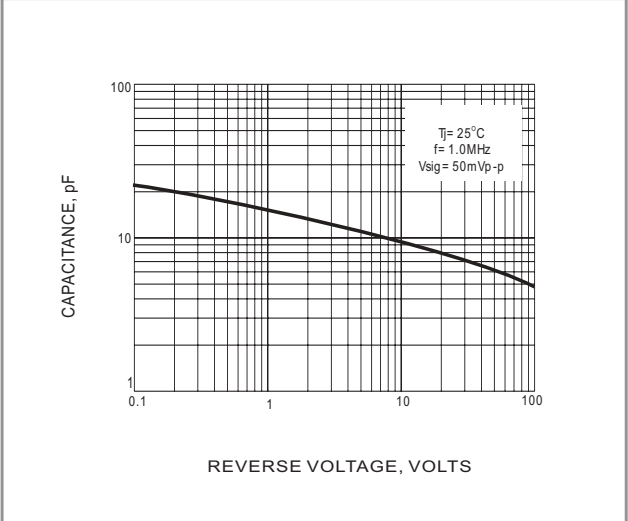


Fig. 4 TYPICAL JUNCTION CAPACITANCE