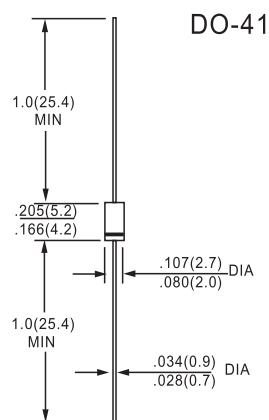


**FEATURES**

- High surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound
- Void-free Plastic in a DO-41 package
- 1.0 ampere operation at $T_A=55\text{ }^\circ\text{C}$ with no thermal runaway
- Fast switching for high efficiency
- Exceeds environmental standards of MIL-S-19500/228

**MECHANICAL DATA**

- Case: SMB, Molded Plastic
- Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Marking: B110LB and Date Code
- Weight: 0.093 grams (approx.)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 $^\circ\text{C}$ ambient temperature unless otherwise specified
Single phase, half wave, 60Hz, resistive or inductive load.

Characteristic	Symbol	BA157	BA158	BA159	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	400	600	1000	V
RMS Reverse Voltage	$V_R(\text{RMS})$	280	420	700	V
Average Rectified Output Current (Note 1) @ $T_A = 55^\circ\text{C}$	I_O	1.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30			A
Forward Voltage @ $I_F = 1.0\text{A}$	V_{FM}	1.2			V
Peak Reverse Current At Rated DC Blocking Voltage @ $T_A = 25^\circ\text{C}$ @ $T_A = 100^\circ\text{C}$	I_{RM}	5.0 100			μA
Reverse Recovery Time (Note 2)	t_{rr}	150	250	500	nS
Typical Junction Capacitance (Note 3)	C_j	15			pF
Operating Temperature Range	T_j	-65 to +125			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150			$^\circ\text{C}$

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
2. Reverse Recovery Test Conditions: $I_F=.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=.25\text{A}$



RATINGS AND CHARACTERISTIC CURVES

BA157 THRU BA159

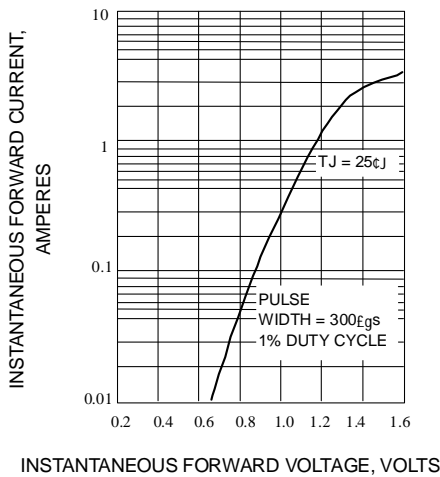


Fig. 1-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

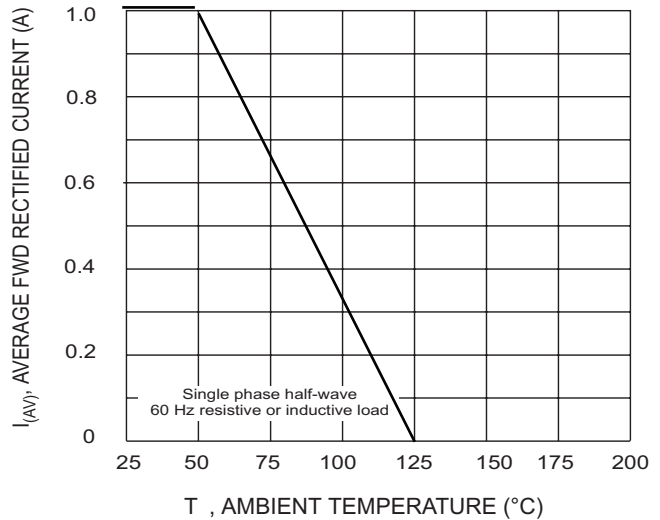


Fig. 2-FORWARD CURRENT DERATING CURVE

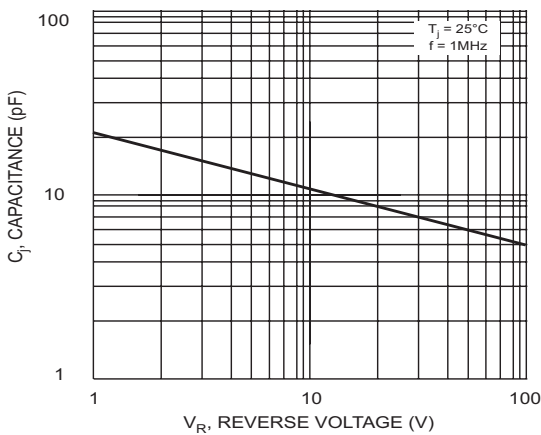


Fig. 4 Typical Junction Capacitance

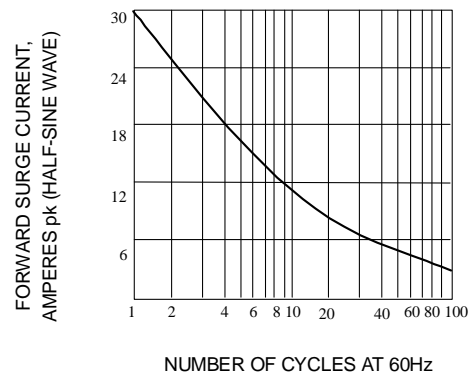
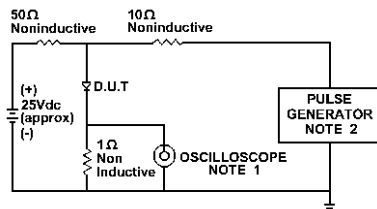


Fig. 4-PEAK FORWARD SURGE CURRENT



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

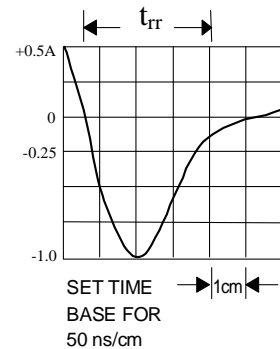


Fig. 5-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM