BA157 THRU BA159

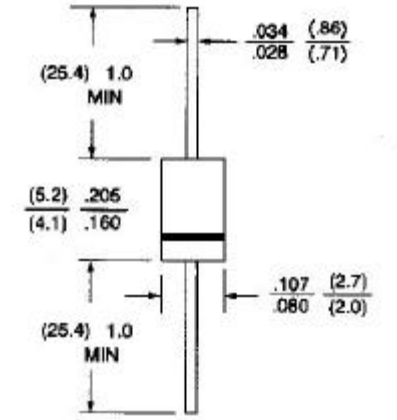
FAST SWITCHING PLASTIC RECTIFIER

VOLTAGE - 400 to 1000 Volts CURRENT - 1.0 Ampere

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 with no thermal runaway
- Fast switching for high efficiency
- Exceeds environmental standards of MIL-S-19500/228

DO-41



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, DO-41

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

Polarity: Band denotes cathode

Mounting Position: Any

Weight: 0.012 ounce, 0.3 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	BA157	BA158	BA159	UNITS
Maximum Recurrent Peak Reverse Voltage	400	600	1000	V
Maximum RMS Voltage	280	420	700	V
Maximum DC Blocking Voltage	400	600	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length at T_A=55	1.0			A
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load(JECEC method)	30			A
Maximum Forward Voltage at 1.0A	1.3			V
Maximum Reverse Current T_J=25 at Rated DC Blocking Voltage T_J=100	5.0 500			A
Typical Junction capacitance (Note 1)	12			$_P$F
Maximum Reverse Recovery Time(Note 2)	150		250	ns
Operating and Storage Temperature Range	-55 to +150			

NOTES:

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

RATING AND CHARACTERISTIC CURVES

BA157 THRU BA159

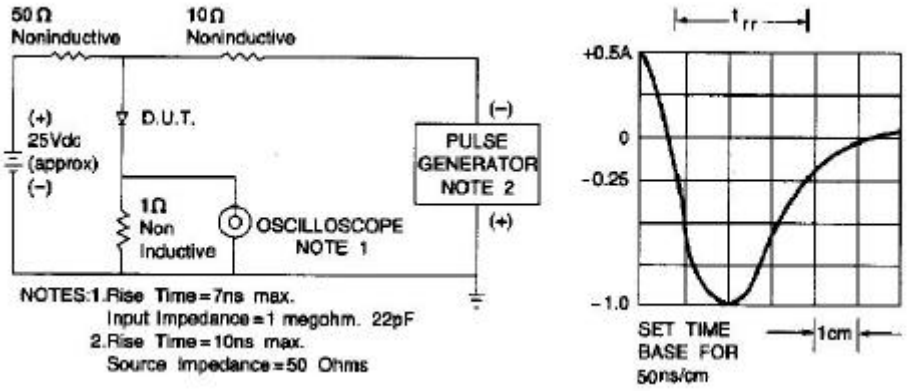


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

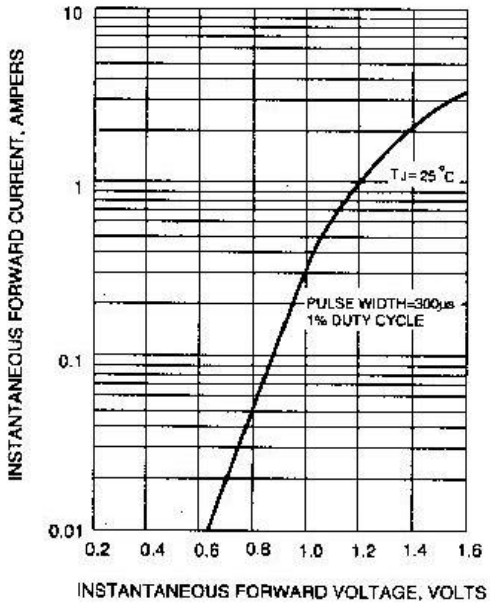


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

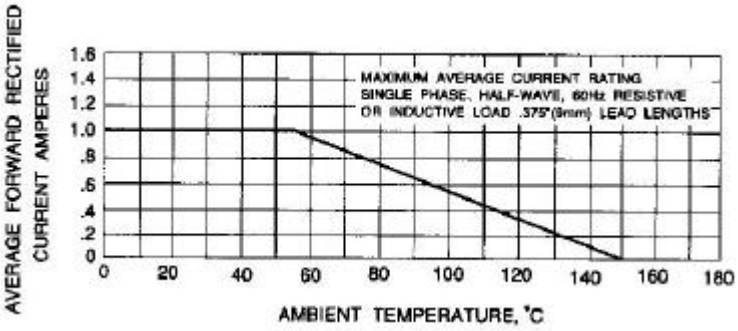


Fig. 3-FORWARD CURRENT DERATING CURVE

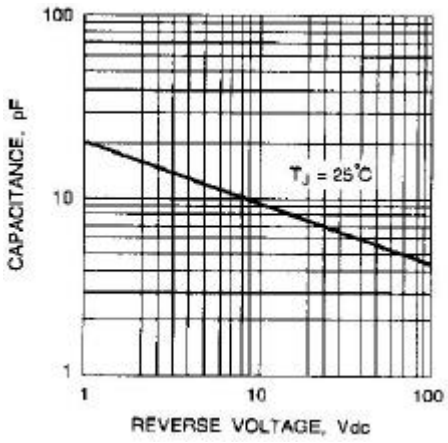


Fig. 4-TYPICAL JUNCTION CAPACITANCE Vs. REVERSE VOLTAGE

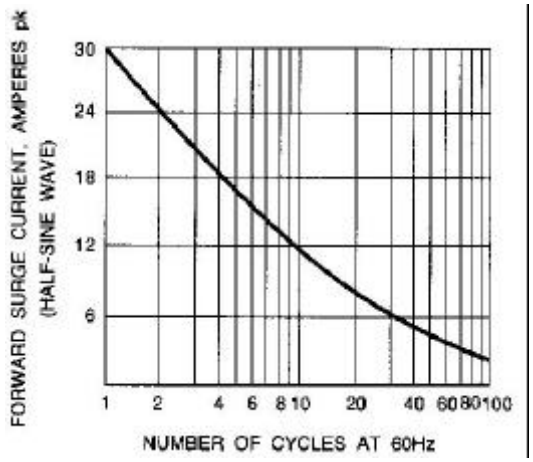


Fig. 5-PEAK FORWARD SURGE CURRENT