

BA157 thru BA159

FAST SWITCHING PLASTIC RECTIFIER



**CHENG-YI
ELECTRONIC**



VOLTAGE-400 TO 1000 Volts
CURRENT -1.0 Ampere

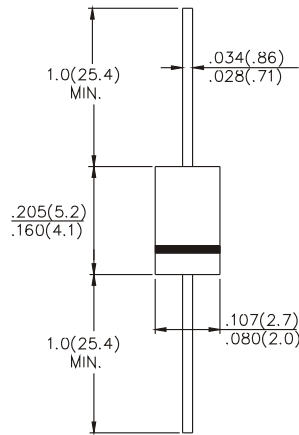
FEATURES

- 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 TA=55°C with no thermal runaway.
- Fast switching for high efficiency
- Exceeds environmental standard of MIL-STD-19500/228.

MECHANICAL DATA

- Case:Molded plastic,DO-41
- Terminals:Plated axial leads, solderable per MIL-STD-202, Method 208
- Polarity:Band denotes cathode
- Mounting position:Any
- Weight:0.012 ounce, 0.3 gram

DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C 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°C	1.0			A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30			A
Maximum Forward Voltage at 1.0A	1.3			V
Maximum Reverse Current T _J =25°C at rated DC Blocking Voltage T _J =100°C	5.0 500			μA
Typical Junction Capacitance (Note 1)	12			pF
Maximum Reverse Recovery Time (Note 2)	150			nS
Storage and Operating Temperature Range	-55 to +150			°C

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.

BA157 thru BA159

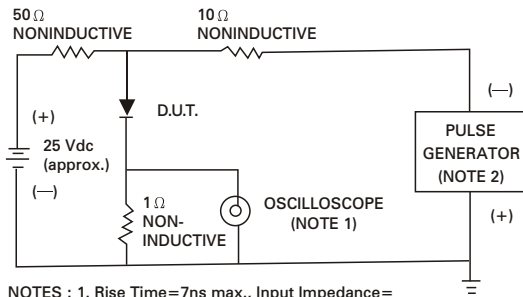
FAST SWITCHING PLASTIC RECTIFIER



**CHENG-YI
ELECTRONIC**

RATING AND CHARACTERISTICS CURVES BA157 THRU BA159

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



NOTES : 1. Rise Time=7ns max., Input Impedance=1 megohm, 22pF.
2. Rise Time=10ns max., Source Impedance=50 ohms.

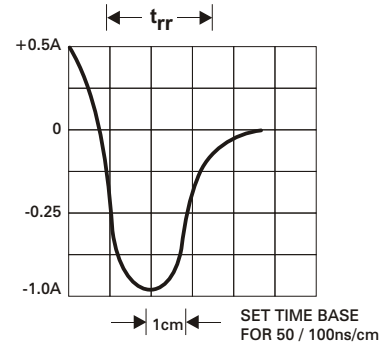


Fig. 2 - FORWARD CURRENT DERATING CURVE

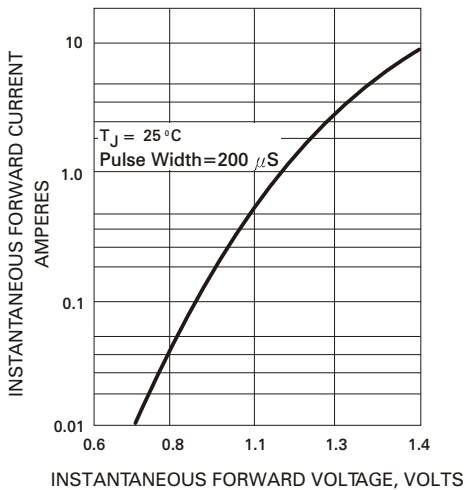


Fig. 3 - FORWARD CURRENT DERATING CURVE

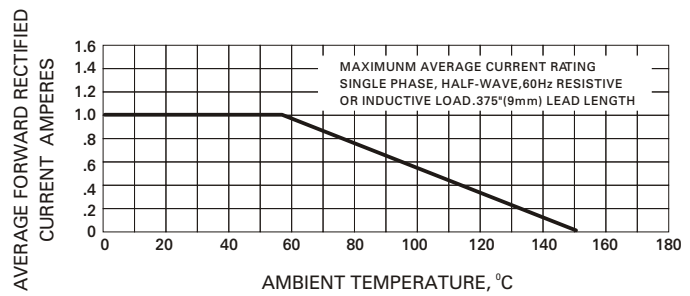


Fig. 4 - TYPICAL JUNCTION CAPACITANCE

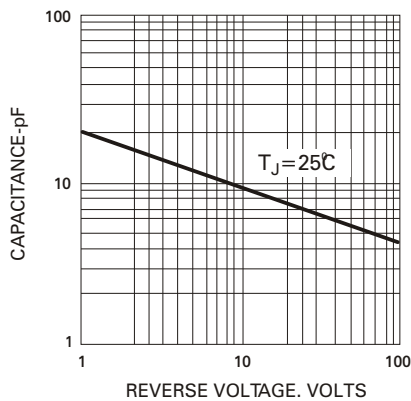


Fig. 5 - PEAK FORWARD SURGE CURRENT

