



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**BA157
THRU
BA159**

TECHNICAL SPECIFICATIONS OF FAST RECOVERY RECTIFIER

VOLTAGE RANGE - 400 to 1000 Volts

CURRENT - 1.0 Ampere

FEATURES

- * Fast switching
- * Low Iwakage
- * Low forward voltage drop
- * High current capability
- * High current surge
- * High reliability

MECHANICAL DATA

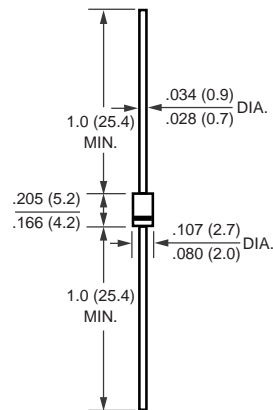
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rated flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.33 gram approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



DO-41



Dimensions in inches and (millimeters)

	SYMBOL	BA157	BA158	BA159	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	400	600	1000	Volts
Maximum RMS Voltage	VRMS	280	420	700	Volts
Maximum DC Blocking Voltage	Vdc	400	600	1000	Volts
Maximum Average Forward Rectified Current at TA = 55°C	Io	1.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30			Amps
Maximum Instantaneous Forward Voltage at 1.0A DC	VF	1.3			Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA=25°C	IR	5.0			µAmps
Maximum Full Load Reverse Current Average, Full Cycle .375"(9.5mm) lead length at T L = 55°C		100			
Maximum Reverse Recovery Time (Note 1)	trr	150	250	500	nSec
Typical Junction Capacitance (Note 2)	CJ	15			pF
Operating and Storage Temperature Range	TJ, TSTG	-65 to +150			°C

NOTES : 1.Test Conditions: IF = 0.5A, IR = 1.0A, IRR = 0.25A
2.Measured at 1 MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (BA157 THRU BA159)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

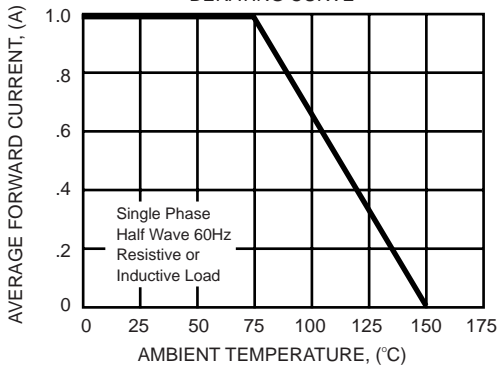


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

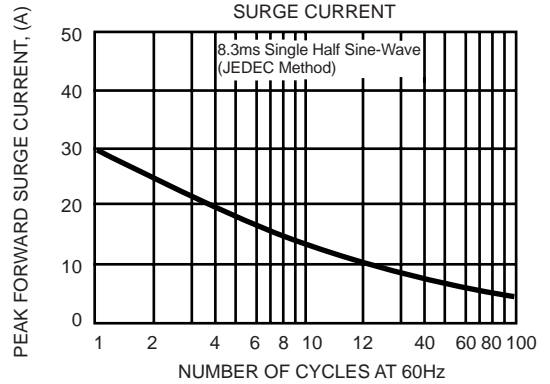


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

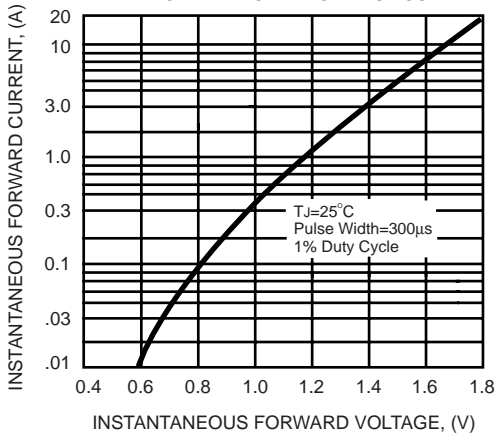


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

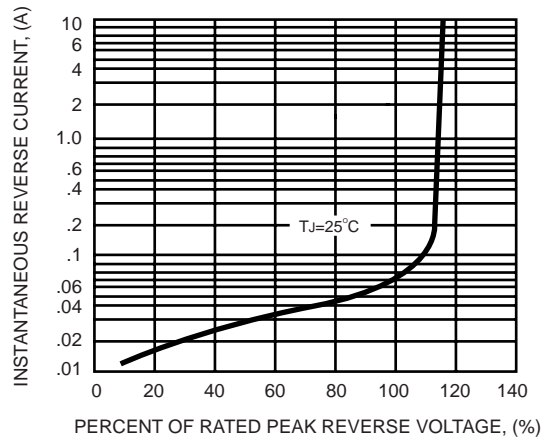


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

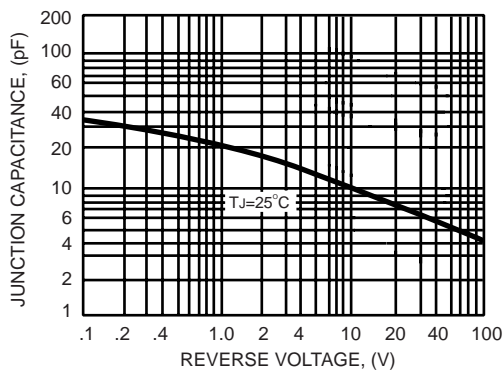
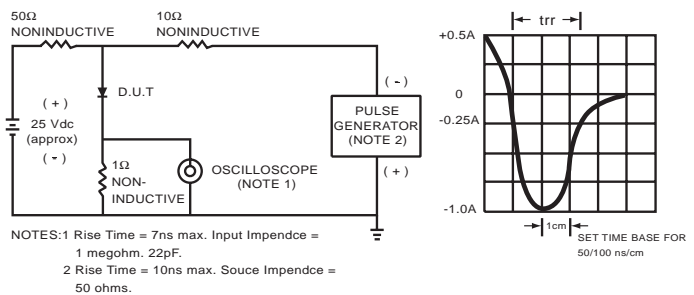


FIG. 6 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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