

## FAST RECOVERY RECTIFIERS

REVERSE VOLTAGE - **400 to 1000** Volts  
FORWARD CURRENT - **1.0** Ampere

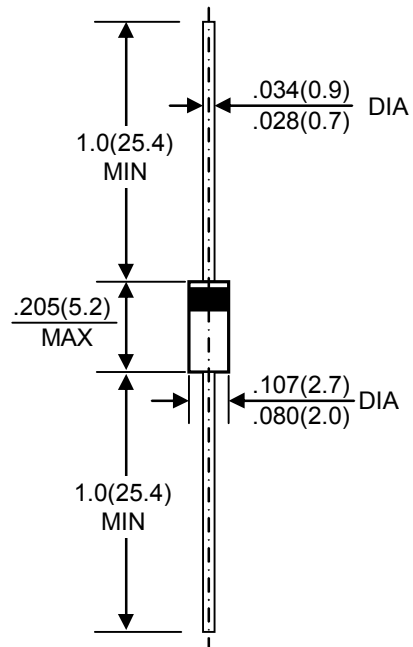
### FEATURES

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

### MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.012 ounces , 0.34 grams
- Mounting position: Any

### 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%

CHARACTERISTICS	SYMBOL	BA157	BA158	BA159	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	400	600	1000	V
Maximum RMS Voltage	VRMS	280	420	700	V
Maximum DC Blocking Voltage	VDC	400	600	1000	V
Maximum Average Forward Rectified Current @TA=75 °C	IAV	1.0			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	IFSM	30			A
Peak Forward Voltage at 1.0A DC	VF	1.3			V
Maximum DC Reverse Current @TJ=25°C at Rated DC Blocking Voltage @TJ=100°C	IR	5.0 100			µA
Maximum Reverse Recovery Time (Note 1)	Trr	150	250	500	nS
Typical Junction Capacitance (Note2)	CJ	25	15		pF
Typical Thermal Resistance (Note3)	ReJA	25			°C/W
Operating Temperature Range	TJ	-55 to +125			°C
Storage Temperature Range	TSTG	-55 to +150			°C

NOTES: 1.Measured with IF=0.5A,IR=1A,IRR=0.25A

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3.Thermal resistance junction to ambient.

**RATING AND CHARACTERISTIC CURVES**  
**BA157 thru BA159**



FIG. 1 – FORWARD CURRENT DERATING CURVE

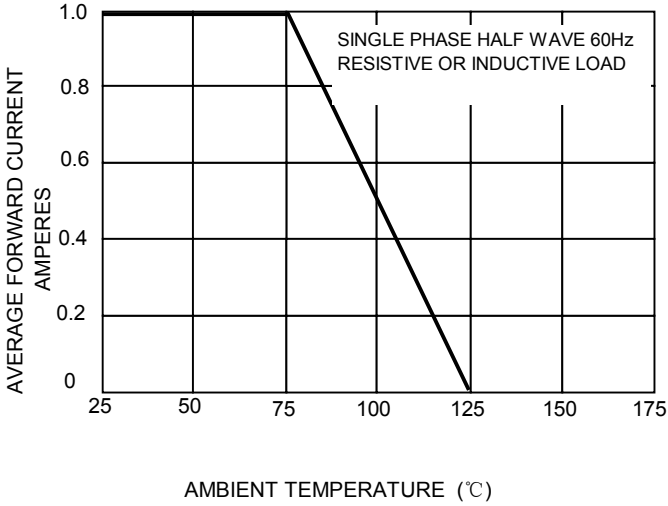


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

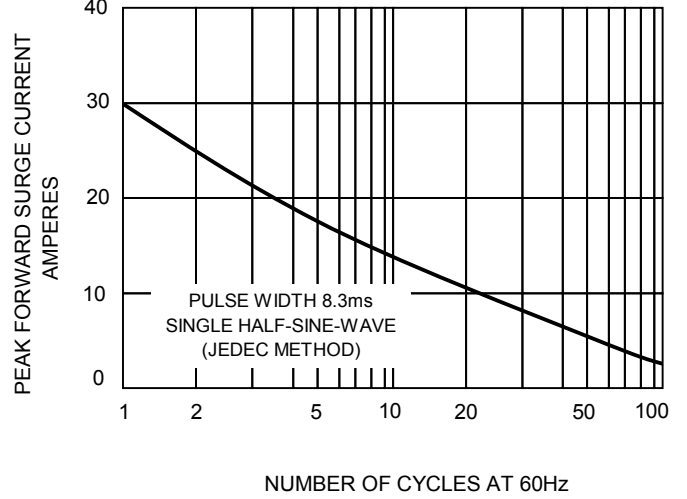


FIG.3 – TYPICAL JUNCTION CAPACITANCE

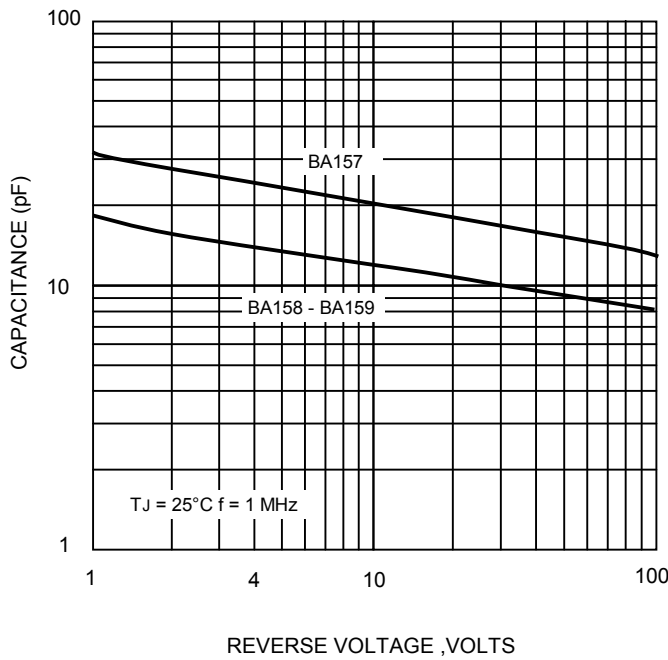


FIG.4-TYPICAL FORWARD CHARACTERISTICS

