



BA157 thru BA159

FAST RECOVERY RECTIFIERS

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

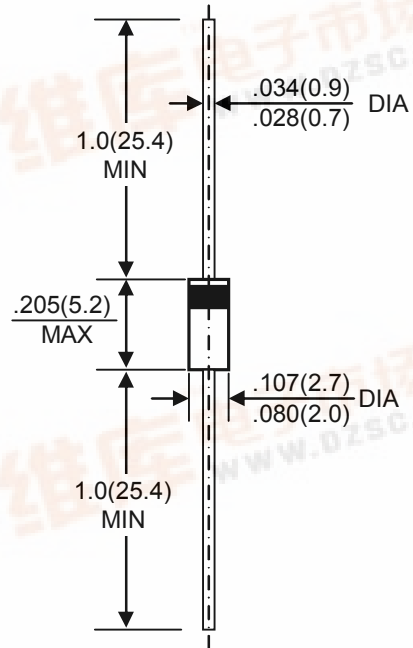
FEATURES

- 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	I(AV)	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)	RθJA	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

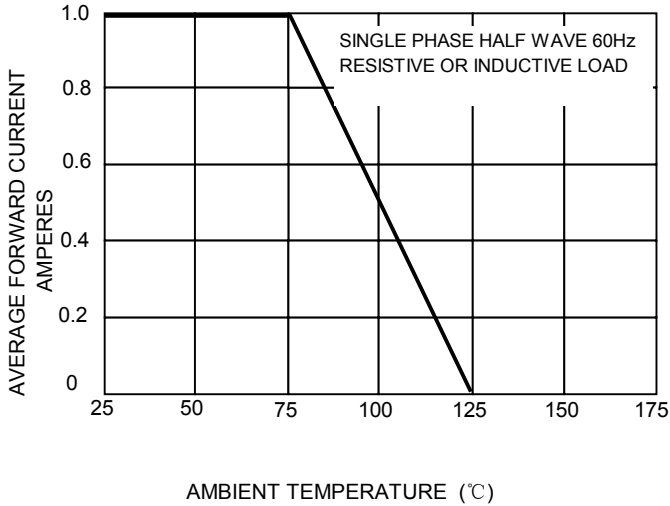


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

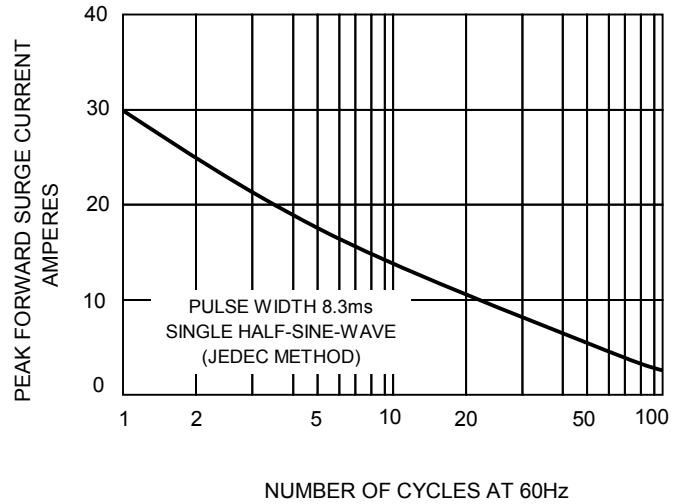


FIG.3 – TYPICAL JUNCTION CAPACITANCE

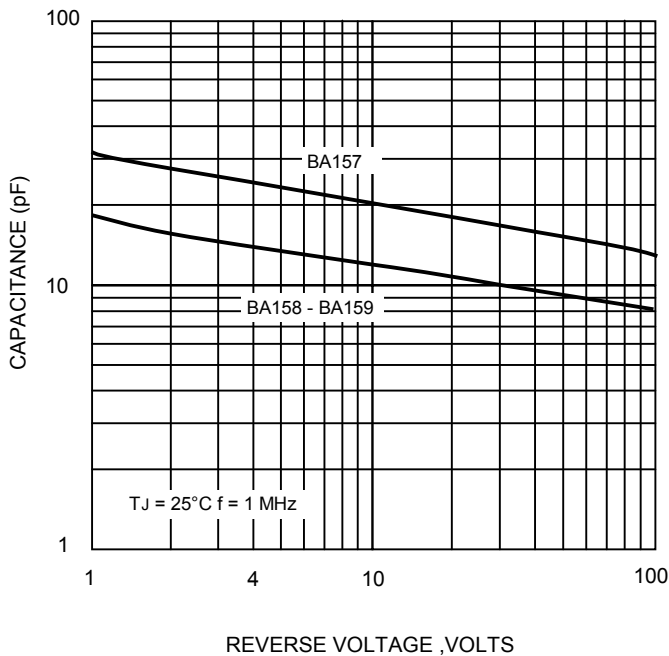


FIG.4-TYPICAL FORWARD CHARACTERISTICS

