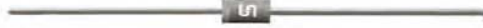


BA157 - BA159

1.0 AMP. Fast Recovery Rectifiers

DO-41

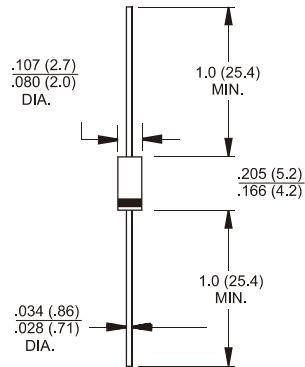


Features

- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss.
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ✧ Cases: DO-41 Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, Lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode end
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375" (9.5mm) lead lengths at 5 lbs. (2.3kg) tension
- ✧ Weight: 0.34 grams



Dimensions in inches and (millimeters)

Marking Diagram



BA15X = Specific Device Code
 G = Green Compound
 Y = Year
 WW = Work Week

Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	Symbol	BA157	BA158	BA159	Units
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 .375" (9.5mm) Lead Length @ T _A = 45 °C	I _{F(AV)}	1.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	30			A
Maximum Instantaneous Forward Voltage @ 1.0A	V _F	1.2			V
Maximum DC Reverse Current at @ T _A =25 °C Rated DC Blocking Voltage (Note 1) @ T _A =125 °C	I _R	5.0 150			uA uA
Maximum Reverse Recovery Time (Note 4)	T _{rr}	150		250	nS
Typical Junction Capacitance (Note 2)	C _j	10			pF
Typical Thermal Resistance (Note 3)	R _{θJA}	65			°C/W
Operating Temperature Range	T _J	-65 to +150			°C
Storage Temperature Range	T _{STG}	-65 to +150			°C

- Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.
 3. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.
 4. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

RATINGS AND CHARACTERISTIC CURVES (BA157 THRU BA159)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

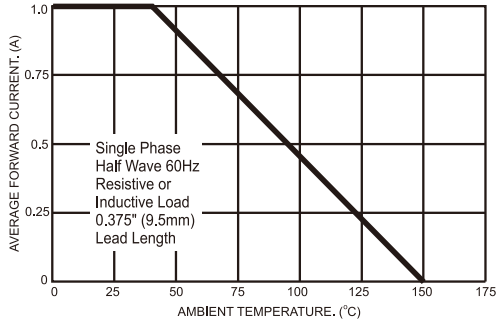


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER LEG

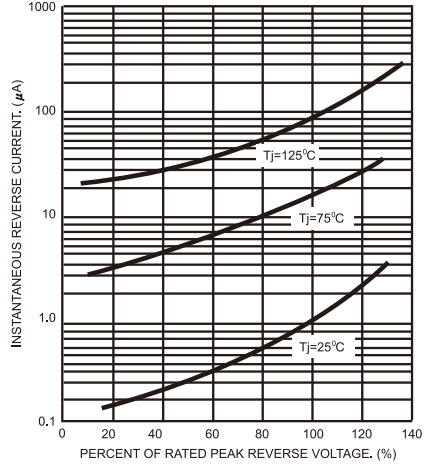


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

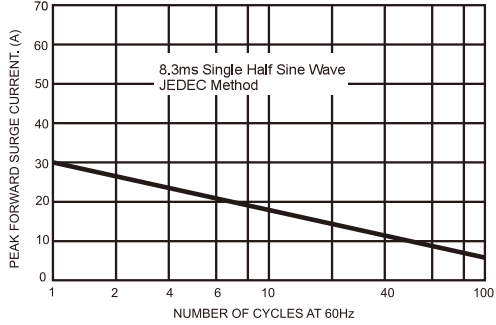


FIG.5- TYPICAL FORWARD CHARACTERISTICS

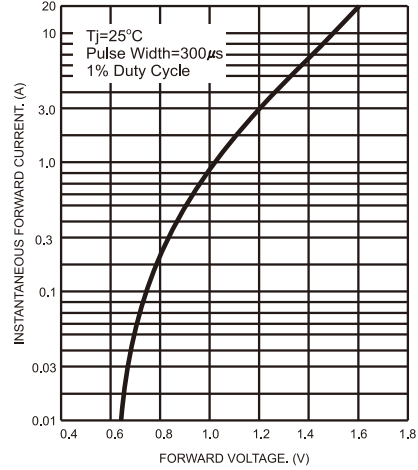


FIG.4- TYPICAL JUNCTION CAPACITANCE

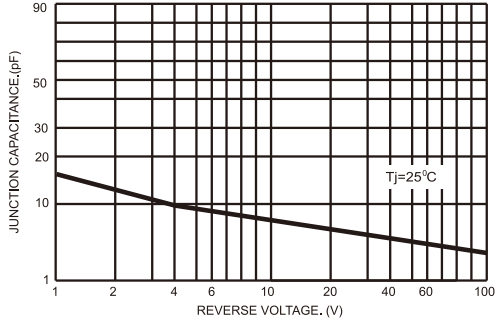


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

