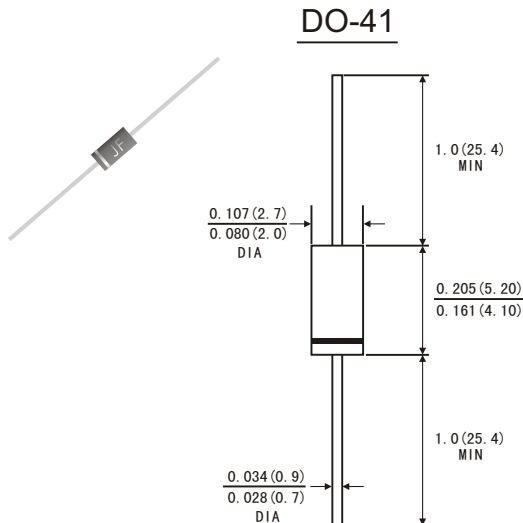


## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Diffused junction
- High current capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals,
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

## MECHANICAL DATA

- *Case*: JEDEC DO-41 molded plastic body
- *Terminals*: Plated axial leads, solderable per MIL-STD-750,method 2026
- *Polarity*: Color band denotes cathode end
- *Mounting Position*: Any
- *Weight*: 0.012ounce, 0.33 gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Dimensions in inches and (millimeters)

(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%.)

		Symbols	BA157	BA158	BA159	Units
Maximum Recurrent Peak Reverse Voltage		$V_{RRM}$	400	600	1000	Volts
Maximum RMS Voltage		$V_{RMS}$	280	420	700	Volts
Maximum DC Blocking Voltage		$V_{DC}$	400	600	1000	Volts
Maximum Average Forward Rectified Current load length at T <sub>A</sub> =50 °C		$I_{(AV)}$	1.0			Amps
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load		$I_{FSM}$	30			Amps
Maximum Instantaneous Forward Voltage at 1.0 A		$V_F$	1.2			Volts
Maximum DC Reverse Current at rated DC blocking voltage	T <sub>A</sub> =25°C	$I_R$	5.0			μA
	T <sub>A</sub> =100°C		100			
Maximum reverse recovery time(Note 1)		$t_{rr}$	150		250	ns
Max.thermal resistance(Note 2)		$R_{\theta JA}$	65			°C/W
Typical junction capacitance(Note 3)		$C_J$	15			pF
Operating junction and storage temperature range		T <sub>J</sub> T <sub>STG</sub>	-65 to +150			°C

Note: 1. Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A.

2. Mount on Cu-Pad size 5mmx5mm on P.C.B.

3. Measured at 1MHz and applied reverse voltage of 4.0 Volts D.C.

# RATINGS AND CHARACTERISTIC CURVES BA157 THRU BA159

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

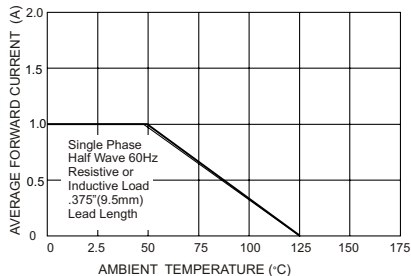


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

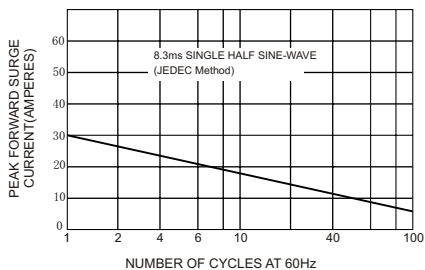


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

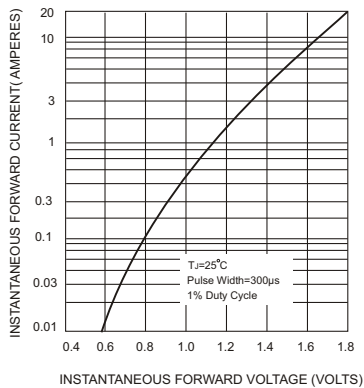


FIG.4-TYPICAL JUNCTION CAPACITANCE

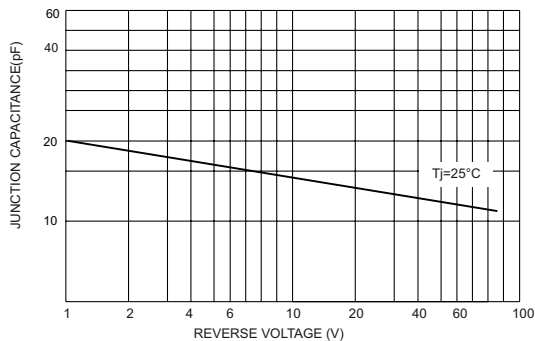
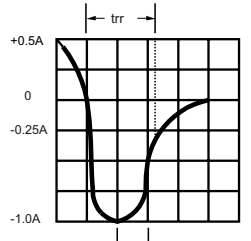
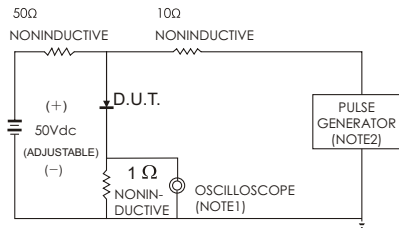


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:1.Rise Time=7ns max. input Impedance=1 megohm 22pF  
2.Rise Time=10ns max. source Impedance=50 ohms

SET TIME BASE FOR 50/100 ns/cm