

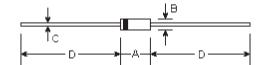
# **BA157 THRU BA159**

FAST SWITCHING PLASITC RECTIFIER
Reverse Voltage - 400 to 1000 Volts
Forward Current - 1.0 Ampere

#### **Features**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High surge current capabability
- Void-free plastic package
- Fast switching for high efficiency
- High temperature soldering guaranteed: 350°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3Kg) tension

DO-41



### **Mechanical Data**

• Case: 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: 0.012 ounce, 0.33 gram

DIMENSIONS								
DIM	inches		mm		Note			
	Min.	Max.	Min.	Max.	Note			
Α	0.165	0.205	4.2	5.2				
В	0.079	0.106	2.0	2.7	ф			
С	0.028	0.034	0.71	0.86	ф			
D	1.000	-	25.40	-				

## **Maximum Ratings and Electrical Characteristics**

Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	BA157	BA158	BA159	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	400	600	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	280	420	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	400	600	1000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at $\rm T_A$ =50 $^{\circ}\rm C$	I <sub>(AV)</sub>	1.0			Amp
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load at $T_A$ =25 $^{\circ}$ C	I <sub>FSM</sub>	35.0			Amps
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.3			Volts
Maximum DC reverse current at rated DC blocking voltage ${\rm T_A}$ =25 $^{\circ}{\rm C}$	I <sub>R</sub>	5.0			μА
Maximum reverse recovery time (Note 1)	T <sub>rr</sub>	150 250		250	nS
Typical junction capacitance (Note 2)	C <sub>J</sub>	15.0			ρF
Typical thermal resistance (Note 3)	R <sub>⊕JL</sub>	25			°C/W
Maximum operating junction temperature	T,	-65 to +125			$^{\circ}$
Maximum storage temperature	T <sub>STG</sub>	-65 to +125			$^{\circ}$

#### Notes:

- (1) Reverse recovery test conditions:  $I_F$ =0.5A,  $I_R$ =1.0A,  $I_r$ =0.25A
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0 volts
- (3) Thermal resistance from junction to lead at 0.375" (9.5mm) lead length P.C.B. mounted

## **RATINGS AND CHARACTERISTIC CURVES**

