# **RB151 THRU RB157**

## SINGLE-PHASE SILICON BRIDGE RECTIFIER



REVERSE VOLTAGE: 50 to 1000 VOLTS FORWARD CURRENT: 1.5 AMPERE

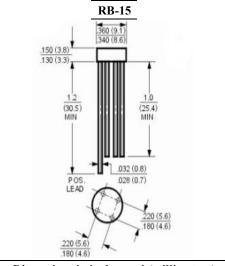
#### **FEATURES**

- · Surge overload rating: 50 amperes peak
- · Ideal for printed circuit board
- · Reliable low cost construction utilizing molded plastic technique
- · High temperature soldering guaranteed:  $250^{\circ}$ C/ 10SEC/ 9.5mm lead length at 2.3kg tension

#### **MECHANICAL DATA**

Case: Reliable low cost construction utilizing molded plastic technique results in inexpensive product Terminals: Leads solderable per MIL-STD-202,

method 208 guaranteed Mounting position: Any Weight: 0.04ounce, 1.04gram



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Ratings at  $25\,^\circ\!\!\!\!\mathrm{C}$  ambient temperature unless otherwise specified.

Single phase, half wave,  $60H_Z$ , resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	RB151	RB152	RB153	RB154	RB155	RB156	RB157	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current	I <sub>(AV)</sub>	1.5							Amp
.375"(9.5mm) Lead Length at T <sub>A</sub> =50℃	-(AV)								
Peak Forward Surge Current,									
8.3ms single half-sine-wave	$I_{FSM}$ 50							Amp	
superimposed on rated load (JEDEC method)									
Maximum Forward Voltage	$\mathbf{V_F}$	1.0							Volts
at 1.0A DC and 25℃									
Maximum Reverse Current at T <sub>A</sub> =25℃	$I_R$	10.0 1000							uAmp
at Rated DC Blocking Voltage T <sub>A</sub> =100°C	1 <sub>R</sub>								
Typical Junction Capacitance (Note 1)	$C_{J}$	24							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	36							°C/W
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	13							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , Tstg	-55 to +150							ಭ

#### NOTES:

- 1- Measured at 1  $\mathrm{MH}_{\mathrm{Z}}$  and applied reverse voltage of 4.0 VDC.
- 2- Thermal Resistance Junction to Ambient and form junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted.





### RATINGS AND CHARACTERISTIC CURVES

