

# RB150 - RB158

PRV : 50 - 800 Volts

Io : 1.5 Amperes

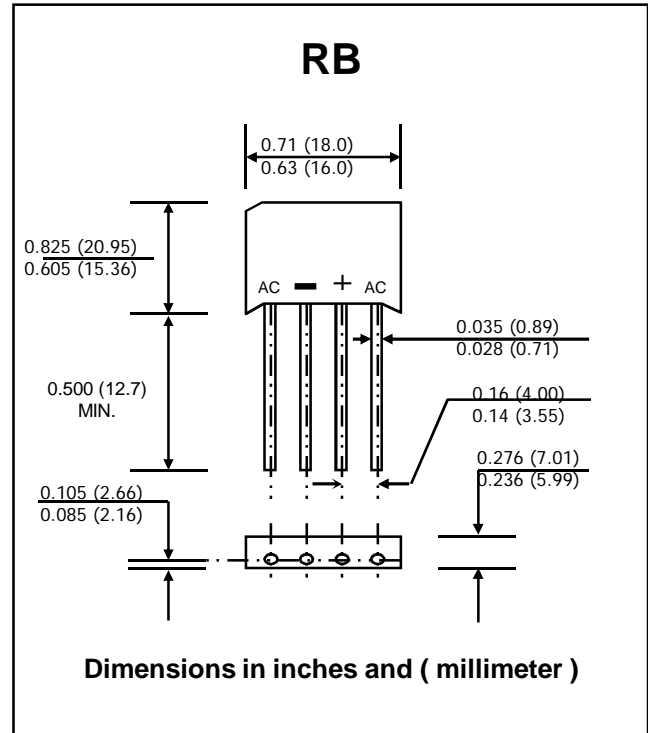
### FEATURES :

- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Rated isolation-voltage 2000 V<sub>AC</sub>
- \* Ideal for printed circuit board
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : Molded plastic
- \* Epoxy : UL94V-0 rate flame retardant
- \* Terminals : Plated lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Any
- \* Weight : 3.4 grams

# SILICON BRIDGE RECTIFIERS



## 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%.

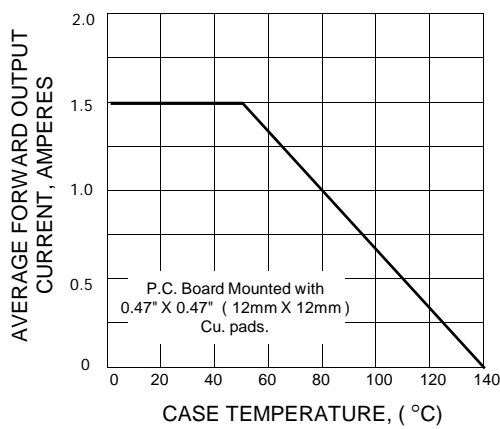
RATING	SYMBOL	RB150	RB151	RB152	RB154	RB156	RB158	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	V
Maximum Average Forward Current T <sub>c</sub> = 50 °C	I <sub>F(AV)</sub>	1.5						A
Peak Forward Surge Current, Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	40						A
Maximum Forward Voltage per Diode at I <sub>F</sub> = 1 A	V <sub>F</sub>	0.95						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>a</sub> = 25 °C	10						μA
	T <sub>a</sub> = 100 °C	100						μA
Typical Thermal Resistance (Note 1)	R <sub>θJL</sub>	15						°C/W
Operating Junction Temperature Range	T <sub>J</sub>	- 40 to + 140						°C
Storage Temperature Range	T <sub>STG</sub>	- 40 to + 140						°C

### Notes :

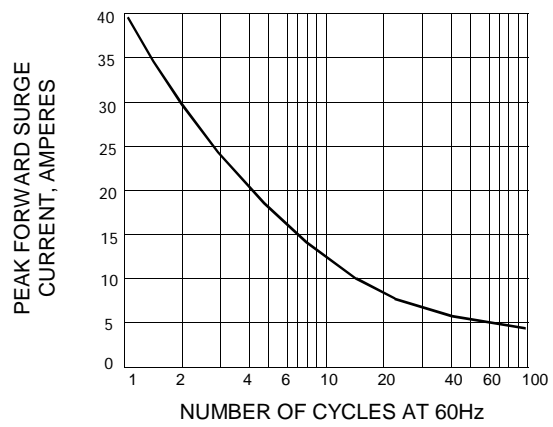
- 1) Thermal resistance from Junction to lead mounted on P.C. Board with 0.47" X 0.47" ( 12mm X 12mm ) Cu pads.

**RATING AND CHARACTERISTIC CURVES ( RB150 - RB158 )**

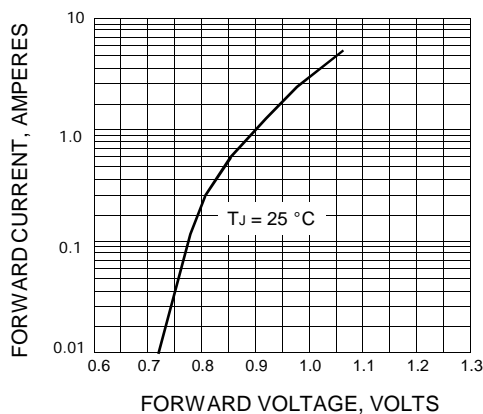
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

