

## 1.5 AMP SILICON BRIDGE RECTIFIERS

### FEATURES

- PRV Ratings from 50 to 1000 Volts
- Surge overload rating to 50 Amps peak
- Reliable low cost molded plastic construction
- Ideal for printed circuit board applications
- **UL RECOGNIZED - FILE #E141956**

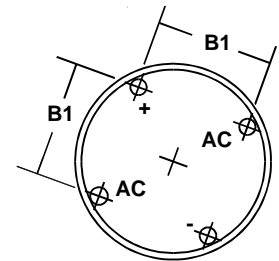
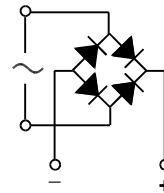
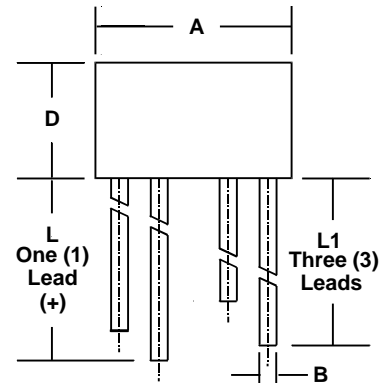
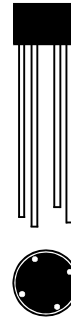
### MECHANICAL DATA

- Case: Molded plastic, U/L Flammability Rating 94V-0
- Terminals: Round silver plated pins
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on case
- Mounting Position: Any
- Weight: 0.05 Ounces (1.3 Grams)

### MECHANICAL SPECIFICATION

ACTUAL SIZE OF  
WB PACKAGE

SERIES WB150 - WB1510



SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	8.6	8.89	0.340	0.350
B	0.76	0.81	0.030	0.032
B1	4.6	5.6	0.180	0.220
D	5.1	5.6	0.200	0.220
L	27.94	n/a	1.10	n/a
L1	25.4	n/a	1.0	n/a

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

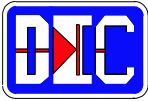
Ratings at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive loads, derate current by 20%.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS							UNITS
		WB 150	WB 151	WB 152	WB 154	WB 156	WB 158	WB 1510	
Series Number									
Maximum DC Blocking Voltage	V <sub>RM</sub>	50	100	200	400	600	800	1000	VOLTS
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	
Maximum Peak Recurrent Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	
Average Forward Rectified Current @ T <sub>A</sub> = 25° C	I <sub>O</sub>	1.5							AMPS
Peak Forward Surge Current. Single 60Hz Half-Sine Wave Superimposed on Rated Load (JEDEC Method). T <sub>J</sub> = 125° C	I <sub>FSM</sub>	50							
Maximum Forward Voltage (Per Diode) at 1 Amp DC	V <sub>FM</sub>	1.0							VOLTS
Maximum Average DC Reverse Current At Rated DC Blocking Voltage @ T <sub>A</sub> = 25° C	I <sub>RM</sub>	10 (Typical < 0.1µA)							µA
Typical Thermal Resistance Junction to Ambient (Note 1) Junction to Lead (Note 1)	R <sub>θJA</sub> R <sub>θJL</sub>	35 15							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-40 to +125 (Junction), -40 to +150 (Storage)							°C

NOTES: (1) Bridge mounted on PC Board with 0.2" sq. (5.5 mm sq.) copper pads and lead length of 0.375" (9.5 mm).

3.01 1.5wb

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## RATING & CHARACTERISTIC CURVES FOR SERIES WB150 - WB1510

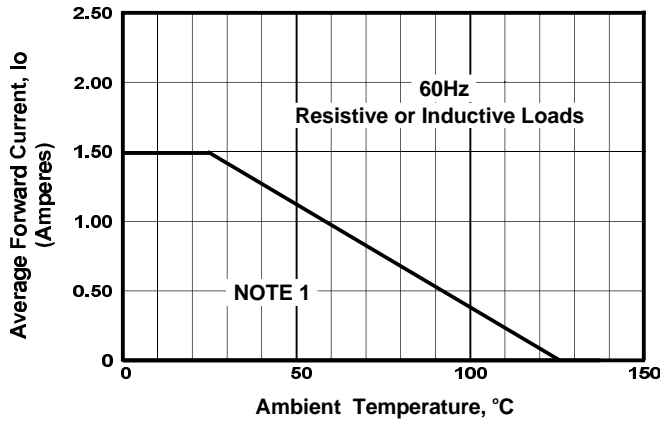


FIGURE 1. FORWARD CURRENT DERATING CURVE

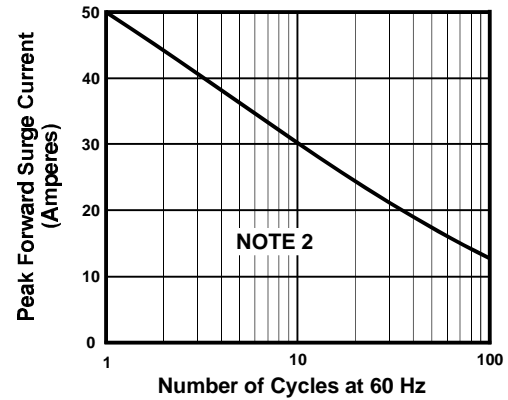


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

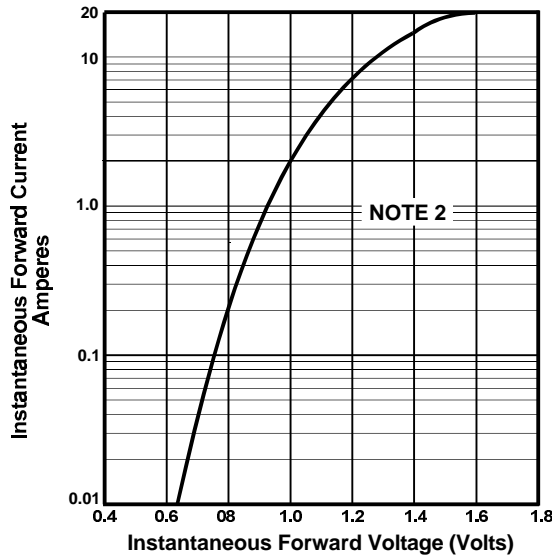


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

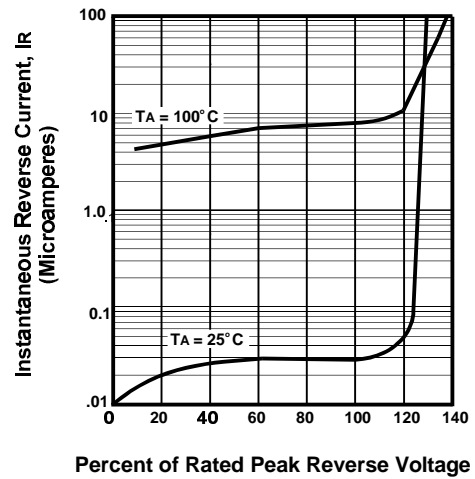


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

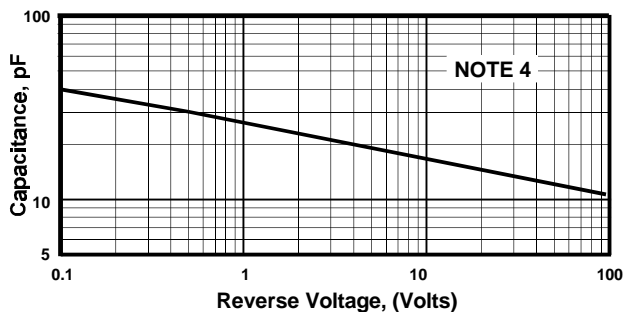


FIGURE 5. TYPICAL JUNCTION CAPACITANCE PER DIODE

### NOTES

- (1) Bridge Mounted on PC Board With 0.2" Sq. (5.5mm Sq.) Copper Pads And Bridge Lead Length of 0.375" (9.5mm)
- (2)  $T_J = 125^\circ\text{C}$
- (3)  $T_J = 25^\circ\text{C}$ ; Pulse Width = 300  $\mu\text{Sec}$ , 1% Duty Cycle
- (4)  $T_J = 25^\circ\text{C}$ ;  $f = 1\text{ MHz}$ ;  $V_{\text{sig}} = 50\text{mVp-p}$