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Data Sheet No. BRSB-200-1C

## 2 AMP SILICON BRIDGE RECTIFIERS

### FEATURES

- PRV Ratings from 50 to 1000 Volts
- Surge overload rating to 60 Amps peak
- Reliable low cost molded plastic construction
- Ideal for printed circuit board applications

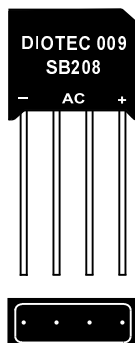
- **UL RECOGNIZED - FILE #E124962**

### MECHANICAL DATA

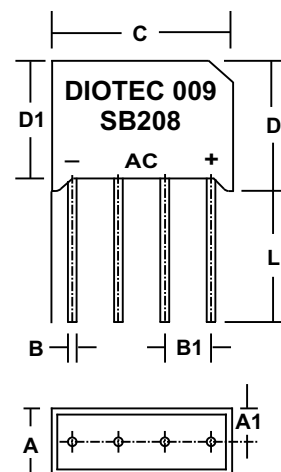
- Case: Molded Epoxy (UL Flammability Rating 94V-0)
- Terminals: Round silver plated pins
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on case
- Mounting Position: Any
- Weight: 0.1 Ounces (2.8 Grams)

### MECHANICAL SPECIFICATION

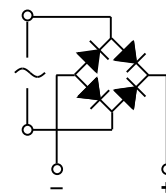
#### ACTUAL SIZE OF SB2 PACKAGE



#### SERIES SB200 - SB210



SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	5.99	7.01	0.236	0.276
A1	2.99	3.51	0.118	0.138
B	0.71	0.89	0.028	0.035
B1	3.55	4.00	0.140	0.160
C	16.0	18.0	0.63	0.71
D	14.0	15.0	0.55	0.59
D1	13.2	13.7	0.52	0.54
L	12.7	n/a	0.50	n/a



### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

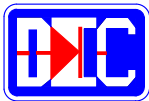
Ratings at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive loads, derate current by 20%.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS								UNITS
		SB 200	SB 201	SB 202	SB 204	SB 206	SB 208	SB 210		
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> = 55° C	I <sub>O</sub>	2								AMPS
Peak Forward Surge Current. Single 60Hz Half-Sine Wave Superimposed on Rated Load (JEDEC Method). T <sub>J</sub> = 150° C	I <sub>FSM</sub>	60								
Maximum Forward Voltage (Per Diode) at 1 Amp DC	V <sub>FM</sub>	1.05								VOLTS
Maximum Average DC Reverse Current @ T <sub>A</sub> = 25° C At Rated DC Blocking Voltage @ T <sub>A</sub> = 125° C	I <sub>RM</sub>	10 500								A
Typical Thermal Resistance. Junction to Ambient (Note 1) Junction to Lead (Note 1)	R <sub>θJA</sub> R <sub>θJL</sub>	30 11								°C/W
Minimum Insulation Breakdown Voltage (Circuit to Case)	V <sub>ISO</sub>	2400								VOLTS
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150								°C

NOTES: (1) Bridge mounted on PC Board with 0.47" sq.(12mm sq.) copper pads.

3.01 0280

E11



## 2 AMP SILICON BRIDGE RECTIFIERS

### RATING & CHARACTERISTIC CURVES FOR SB200 - SB210 SERIES

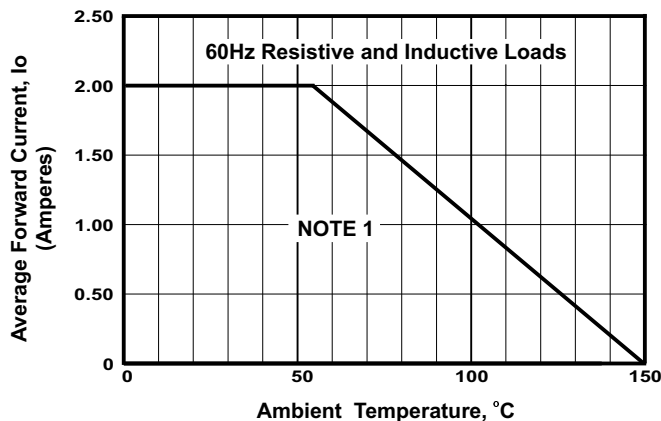


FIGURE 1. FORWARD CURRENT DERATING CURVE

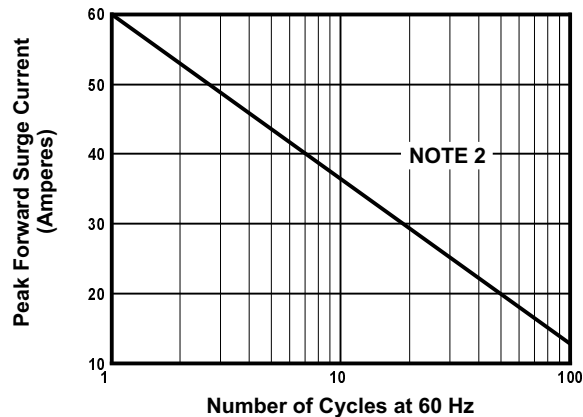


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

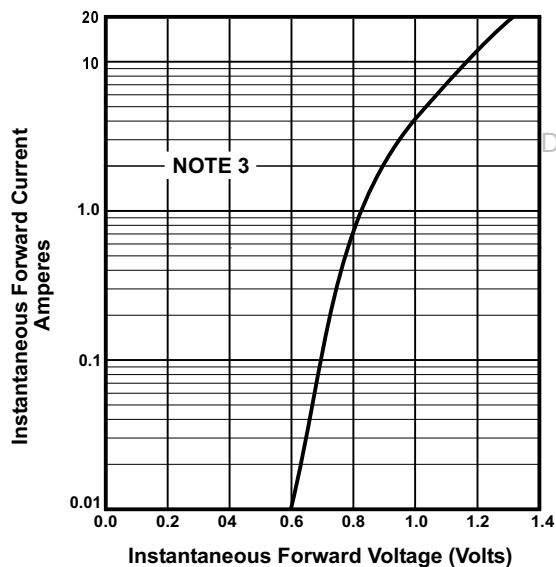


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

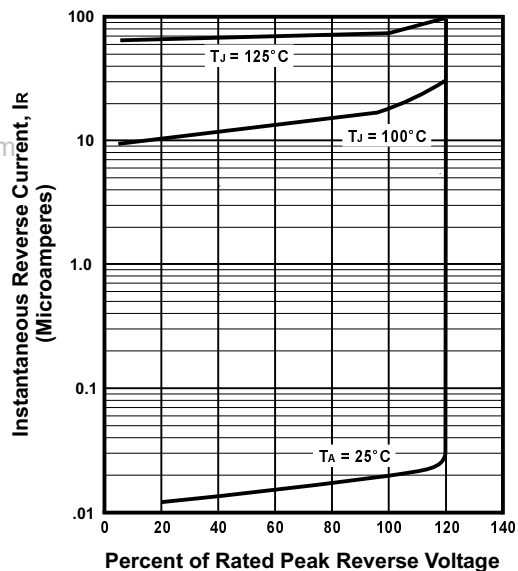


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

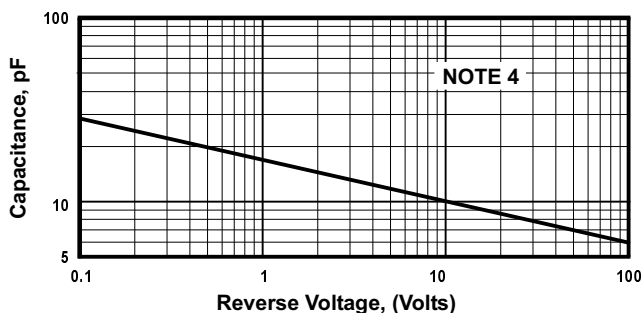


FIGURE 5. TYPICAL JUNCTION CAPACITANCE PER DIODE

#### NOTES

- (1) Bridge Mounted on PC Board With 0.47" Sq. (12mm Sq.) Copper Pads
- (2)  $T_J = 150^\circ\text{C}$
- (3)  $T_J = 25^\circ\text{C}$ ; Pulse Width = 300  $\mu\text{Sec}$ , 1% Duty Cycle
- (4)  $T_J = 25^\circ\text{C}$ ;  $f = 1\text{ MHz}$ ;  $V_{\text{SIG}} = 50\text{mV}_{\text{P-P}}$