



DIOTEC ELECTRONICS CORP.
 18020 Hobart Blvd., Unit B
 Gardena, CA 90248 U.S.A
 Tel.: (310) 767-1052 Fax: (310) 767-7958

Data Sheet No. BRSB-200-1C

2 AMP SILICON BRIDGE RECTIFIERS

FEATURES

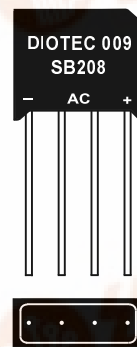
- PRV Ratings from 50 to 1000 Volts
- Surge overload rating to 60 Amps peak
- Reliable low cost molded plastic construction
- Ideal for printed circuit board applications
- **UL RECOGNIZED - FILE #E124962**
- **RoHS COMPLIANT**

MECHANICAL DATA

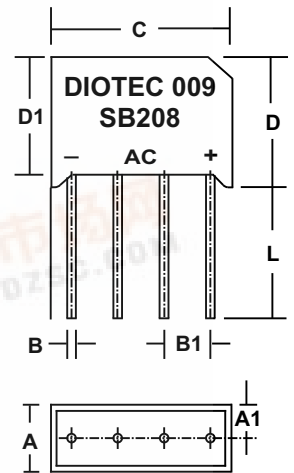
- Case: Molded Epoxy (UL Flammability Rating 94V-0)
- Terminals: Round silver plated pins
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on case
- Mounting Position: Any
- Weight: 0.1 Ounces (2.8 Grams)

MECHANICAL SPECIFICATION

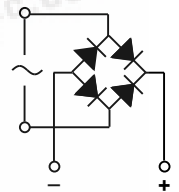
ACTUAL SIZE OF SB2 PACKAGE



SERIES SB200 - SB210



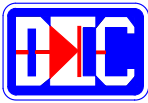
SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	5.99	7.01	0.236	0.276
A1	2.99	3.51	0.118	0.138
B	0.71	0.89	0.028	0.035
B1	3.55	4.00	0.140	0.160
C	16.0	18.0	0.63	0.71
D	14.0	15.0	0.55	0.59
D1	13.2	13.7	0.52	0.54
L	12.7	n/a	0.50	n/a



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 _{RM}	50	100	200	400	600	800	1000		VOLTS	
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700			
Maximum Peak Recurrent Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000			
Average Forward Rectified Current @ T _A = 55° C	I _O	2									AMPS
Peak Forward Surge Current. Single 60Hz Half-Sine Wave Superimposed on Rated Load (JEDEC Method). T _J = 150° C	I _{FSM}	60									
Maximum Forward Voltage (Per Diode) at 1 Amp DC	V _{FM}	1.05									VOLTS
Maximum Average DC Reverse Current @ T _A = 25° C At Rated DC Blocking Voltage @ T _A = 125° C	I _{RM}	10 500									A
Typical Thermal Resistance. Junction to Ambient (Note 1) Junction to Lead (Note 1)	R _{θJA} R _{θJL}	30 11									°C/W
Minimum Insulation Breakdown Voltage (Circuit to Case)	V _{ISO}	2400									VOLTS
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150									°C



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2 AMP SILICON BRIDGE RECTIFIERS

RATING & CHARACTERISTIC CURVES FOR SB200 - SB210 SERIES

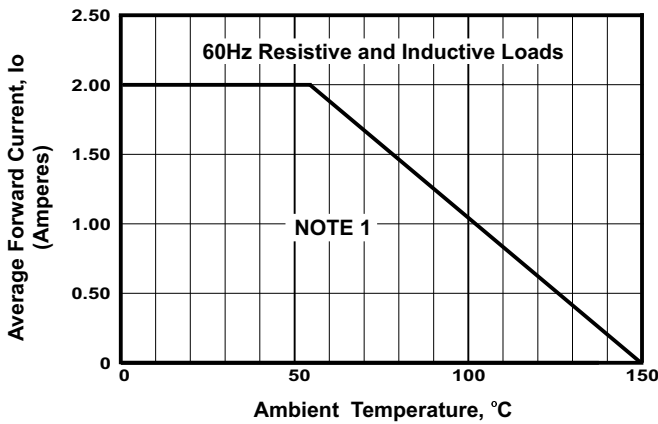


FIGURE 1. FORWARD CURRENT DERATING CURVE

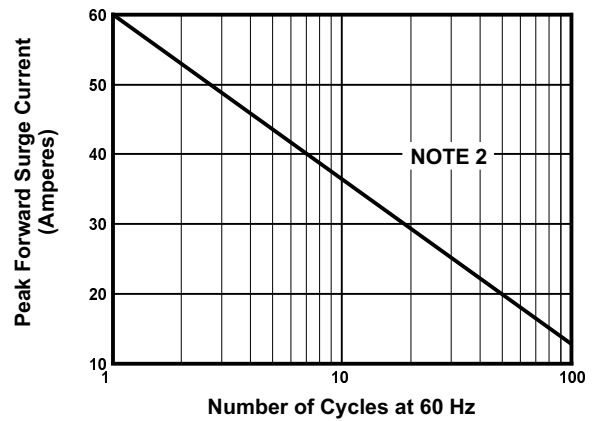


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

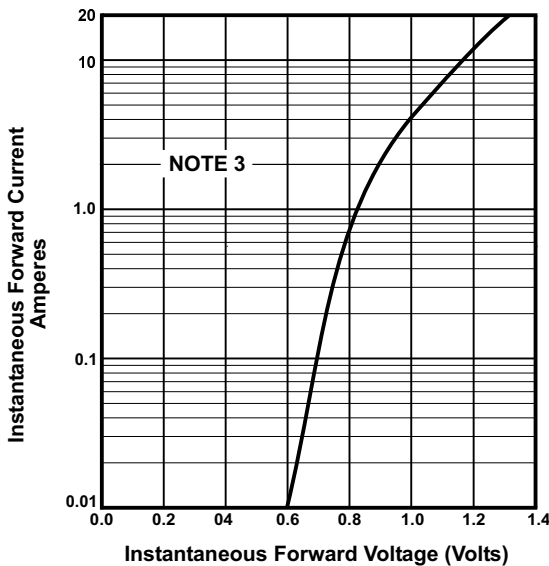


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

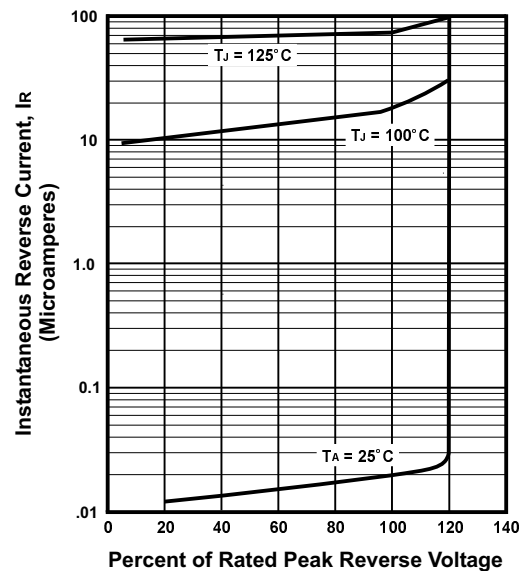


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

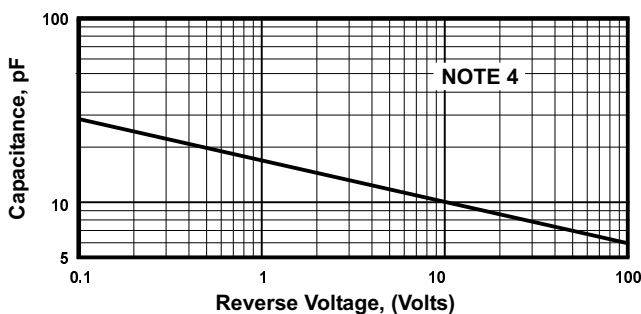


FIGURE 5. TYPICAL JUNCTION CAPACITANCE PER DIODE

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 Sec, 1% Duty Cycle
- (4) $T_J = 25^\circ\text{C}$; $f = 1\text{ MHz}$; $V_{\text{SIG}} = 50\text{mV}_{\text{P-P}}$