DIOTEC ELECTRONICS CORP.
18020 Hobart Blvd., Unit B
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Tel.: (310) 767-1052 Fax: (310) 767-7958

Data Sheet No. BRHB-600-1C
ABHB-600-1C

6 AMP SILICON BRIDGE RECTIFIERS

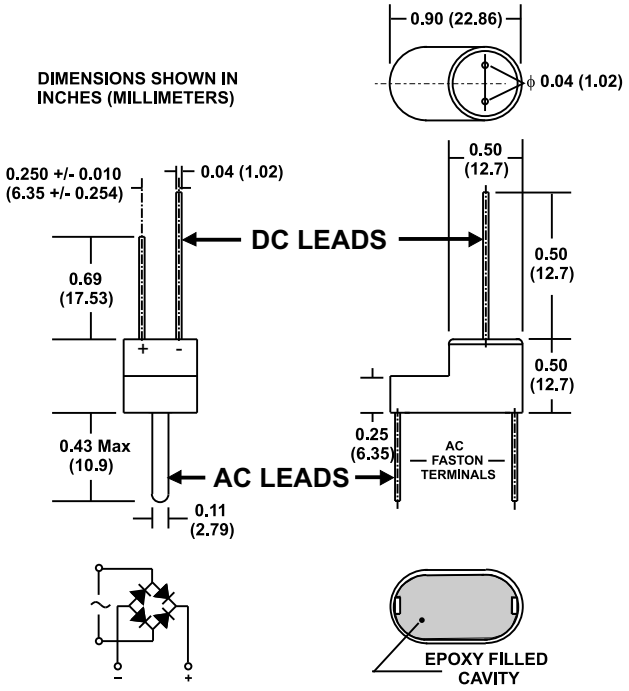
FEATURES

- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical < 2%, Max. < 10% of Die Area)
- BUILT-IN STRESS RELIEF MECHANISM FOR SUPERIOR RELIABILITY AND PERFORMANCE
- Unique structure - DC leads on one side, AC leads on the opposite side
- Ideal for DC motor related applications
- UL RECOGNIZED - FILE #E124962
- RoHS COMPLIANT

MECHANICAL DATA

- Case: Molded Epoxy (UL Flammability Rating 94V-0)
- Terminals: Round silver plated copper pins/faston connectors
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on case
- Mounting Position: Any.
- Weight: 0.13 Ounces (3.6 Grams)

MECHANICAL SPECIFICATION



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
		CONTROLLED AVALANCHE			NON-CONTROLLED AVALANCHE							
Series Number		AHBU 604	AHBU 606	AHBU 608	HBU 600	HBU 601	HBU 602	HBU 604	HBU 606	HBU 608	HBU 610	
Maximum DC Blocking Voltage	V_{RM}	400	600	800	50	100	200	400	600	800	1000	VOLTS
Working Peak Reverse Voltage	V_{RWM}											
Maximum Peak Recurrent Reverse Voltage	V_{RRM}											
RMS Reverse Voltage	$V_{R(RMS)}$	280	420	560	35	70	140	280	420	560	700	
Power Dissipation in $V_{(BR)}$ Region for 100 µS Square Wave	P_{RM}	400			n/a							WATTS
Continuous Power Dissipation in $V_{(BR)}$ Region @ T_{HS}=80 °C (Heat Sink Temp)	P_R	2			n/a							
Thermal Energy (Rating for Fusing)	I^2t	127										$AMPS^2$ SEC
Peak Forward Surge Current. Single 60Hz Half-Sine Wave Superimposed on Rated Load (JEDEC Method). T_J = 125° C	I_{FSM}	250										AMPS
Average Forward Rectified Current @ T_C = 50°C @ T_A = 40°C	I_O	6 3										
Junction Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150										°C
Minimum Avalanche Voltage	$V_{(BR)\ Min}$	See Note 1			n/a							VOLTS
Maximum Avalanche Voltage	$V_{(BR)\ Max}$	See Note 1			n/a							
Maximum Forward Voltage (Per Diode) at 6 Amps DC	V_{FM}	0.95 (Typical < 0.90)										
Maximum Reverse Current at Rated V_{RM} @ T_A = 25°C @ T_A = 100°C	I_{RM}	1 50										µA
Minimum Insulation Breakdown Voltage (Circuit to Case)	V_{ISO}	2000										VOLTS
Typical Thermal Resistance (on Heat Sink) Junction to Ambient Junction to Case	$R_{\theta JA}$ $R_{\theta JC}$	16.0 5.7										°C/W

NOTES: (1) These bridges exhibit the avalanche characteristic at breakdown. If your application requires a specific breakdown voltage range, please contact us.

3.01 06hbu

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ABHB-600-2C

6 AMP SILICON BRIDGE RECTIFIERS

RATING & CHARACTERISTIC CURVES FOR SERIES HBU600 - HBU610 and SERIES AHBU604 - AHBU608

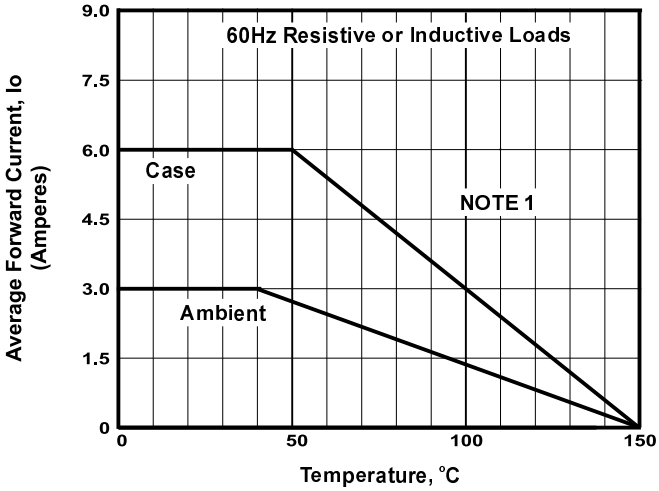

FIGURE 1. FORWARD CURRENT DERATING CURVE

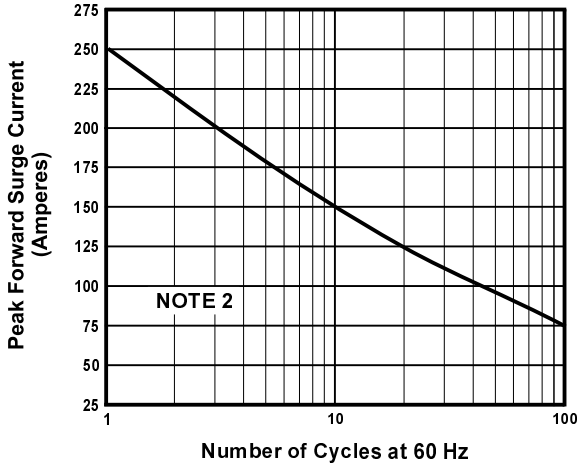

FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

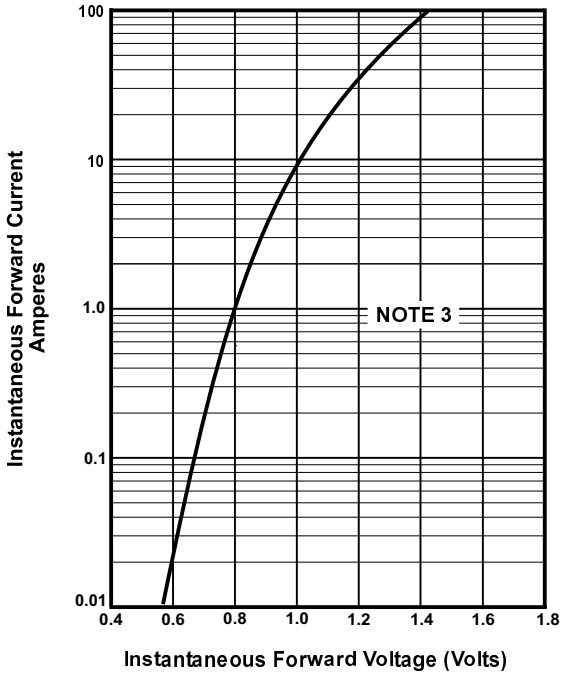

FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

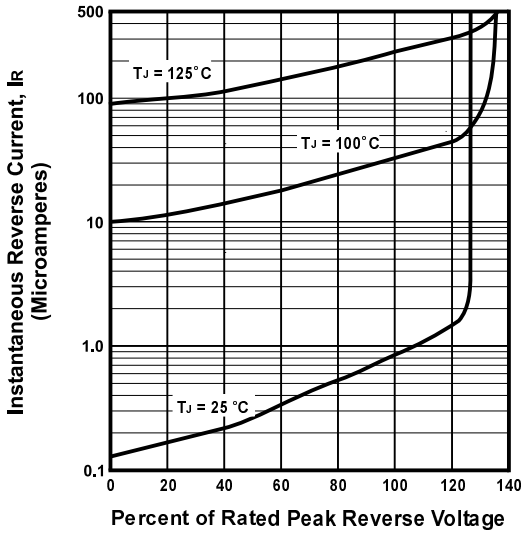

FIGURE 4. TYPICAL REVERSE CHARACTERISTICS PER DIODE

NOTES

(1) Ambient = Ambient temperature, T_A. P.C. Board mounting with 0.375" (9.5 mm) Lead lengths
Case = Case Temperature, T_C. Mounted on aluminum plate 5.5" x 6.0" x 0.11" thick (14cm x 15cm x 0.3 cm)

(2) T_J = 125°C

(3) T_J = 25°C; Pulse Width = 300 μSec; 1% Duty Cycle