DIOTEC ELECTRONICS CORP.
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Data Sheet No. BRDB-3500-1B
ADBD-3500-1B

35 AMP SILICON BRIDGE RECTIFIERS

FEATURES

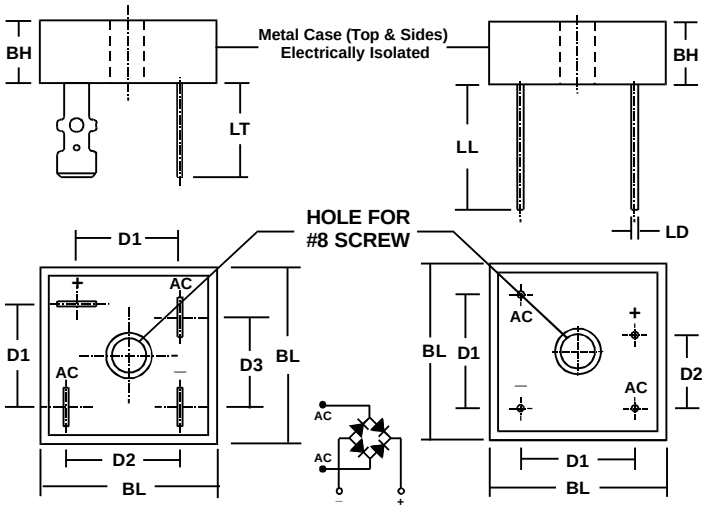
- PRV Ratings from 50 to 1000 Volts
- Surge overload rating to 400 Amps peak
- High efficiency
- Electrically isolated metal case for maximum heat dissipation
- **UL RECOGNIZED - FILE #E141956**

MECHANICAL DATA

- Case: Metal (Potting epoxy carries U/L flammability Rating 94V-0)
- Terminals: Round silver plated copper pins or fast-on terminals
- Soldering: Per MIL-STD 202 Method 208 guaranteed (Note 1)
- Polarity: Marked on side of case
- Mounting Position: Any. Through hole for #8 screw.
  Max. mounting torque = 20 in-lb.
- Weight: Fast-on Terminals - 1.1 Ounces (31.6 Grams)
  Wire Leads - 0.95 Ounce (28.5 Grams)

MECHANICAL SPECIFICATION

SERIES: DB3500 - DB3510 and ADB3504 - ADB3508



SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
BL	28.4	28.7	1.12	1.13
BH	11.0	11.2	0.43	0.44
D1	15.7	16.7	0.62	0.66
D2	17.5	18.5	0.69	0.73
D3	13.5	14.5	0.53	0.57
LT	n/a	14.2	n/a	0.56

Suffix "T" indicates FAST-ON TERMINALS

SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
BL	28.4	28.7	1.12	1.13
BH	11.0	11.2	0.43	0.44
D1	17.5	18.5	0.69	0.73
D2	10.9	11.9	0.43	0.47
LL	20.6	n/a	0.81	n/a
LD	1.0	1.1	0.039	0.042

Suffix "W" indicates WIRE LEADS

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		ADB 3504	ADB 3506	ADB 3508	DB 3500	DB 3501	DB 3502	DB 3504	DB 3506	DB 3508	DB 3510	
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	
Thermal Energy (Rating for Fusing)	I^2t	664										$AMPS^2$ SEC
Peak Forward Surge Current (8.3 mSec single half sine wave superimposed on rated load)	I_{FSM}	400										AMPS
Average Forward Rectified Current @ T_C = 50 °C (Note 2)	I_O	35										
Junction Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150										°C
Mimimum Avalanche Voltage	$V_{(BR)\ Min}$	450	650	850	n/a							VOLTS
Maximum Avalanche Voltage	$V_{(BR)\ Max}$	900	1100	1300	n/a							
Maximum Forward Voltage (Per Diode) at 17.5 Amps DC	V_{FM}	1.1										
Maximum Reverse Current at Rated V_{RM} @ T_A = 25°C @T_A = 100 °C	I_{RM}	1 5										µA
Minimum Insulation Breakdown Voltage (Circuit to Case)	V_{ISO}	2000										VOLTS
Typical Thermal Resistance (on Heat Sink); Junction to Ambient (Note 3)	$R_{\theta JC}$ $R_{\theta JL}$	1.2 0.8										°C/W

NOTES: (1) Maximum soldering time and temperature = 10 Sec @ 265 °C
(2) Unit Mounted on Metal Chassis.
(3) Mounted on an 11.8 in.^{2} x 0.06 in. thick (300mm^2 x 1.5mm thick) copper plate.

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