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. BRDB-3500P-1C
ADBD-3500P-1C

35 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**
- **INTEGRALLY MOLDED HEAT SINK PROVIDES VERY LOW THERMAL RESISTANCE FOR MAXIMUM HEAT DISSIPATION**
- **UL RECOGNIZED - FILE #E141956**

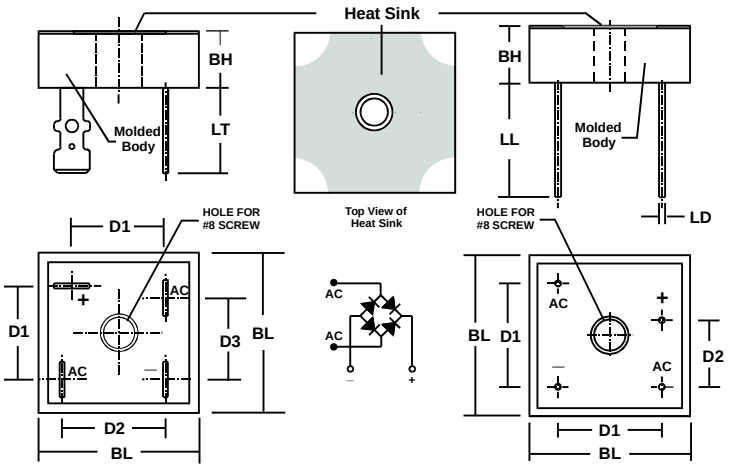
MECHANICAL DATA

- **Case: Molded plastic, U/L Flammability Rating 94V-0**
- **Terminals: Round silver plated copper pins or fast-on terminals**
- **Soldering: Per MIL-STD 202 Method 208 guaranteed**
- **Polarity: Marked on side of case**
- **Mounting Position: Any. Through hole for #8 screw. Max. mounting torque = 20 in-lb.**
- **Weight: Fast-on Terminals - 0.7 Ounces (20.0 Grams) Wire Leads - 0.55 Ounces (16.0 Grams)**

MECHANICAL SPECIFICATION

SERIES: DB3500P - DB3510P and ADB3504P - ADB3508P

Suffix "P" indicates molded PLASTIC with integrally mounted Heat Sink



SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
BL	28.4	28.7	1.12	1.13
BH	9.6	10.2	0.38	0.40
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	15.2	n/a	0.6

Suffix "T" indicates FAST-ON TERMINALS

SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
BL	28.4	28.7	1.12	1.13
BH	9.6	10.2	0.38	0.40
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 3504P	ADB 3506P	ADB 3508P	DB 3500P	DB 3501P	DB 3502P	DB 3504P	DB 3506P	DB 3508P	DB 3510P	
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	
Rating for Fusing (Non Repetitive; 1mS < t < 8.3mS)	I^2t	664										AMPS² SEC
Peak Forward Surge Current. Single 60Hz Half-Sine Wave Superimposed on Rated Load (JEDEC Method). T_J = 150° C	I_{FSM}	400										AMPS
Average Forward Rectified Current @ T_C = 50°C	I_O	35										
Junction Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150										°C
Mimimum 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 17.5 Amps DC	V_{FM}	1.05										
Maximum Reverse Current at Rated V_{RM} @ T_A = 25°C @T_A = 125°C	I_{RM}	1 50										µA
Minimum Insulation Breakdown Voltage (Circuit to Case)	V_{ISO}	2500										VOLTS
Typical Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.2										°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 35dbp

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. BRDB-3500P-2C
ABDB-3500P-2C

35 AMP SILICON BRIDGE RECTIFIERS

RATING & CHARACTERISTIC CURVES FOR SERIES DB3500P - DB3510P and SERIES ADB3504P - ADB3508P

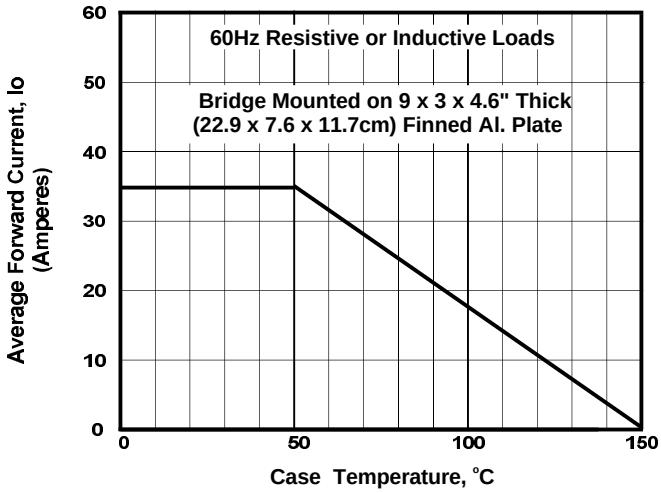


FIGURE 1. FORWARD CURRENT DERATING CURVE

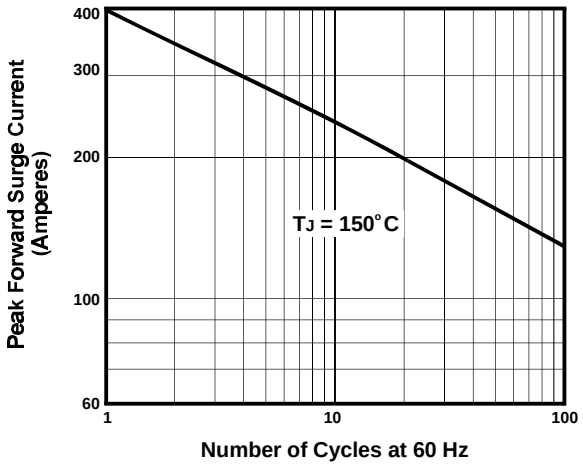


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

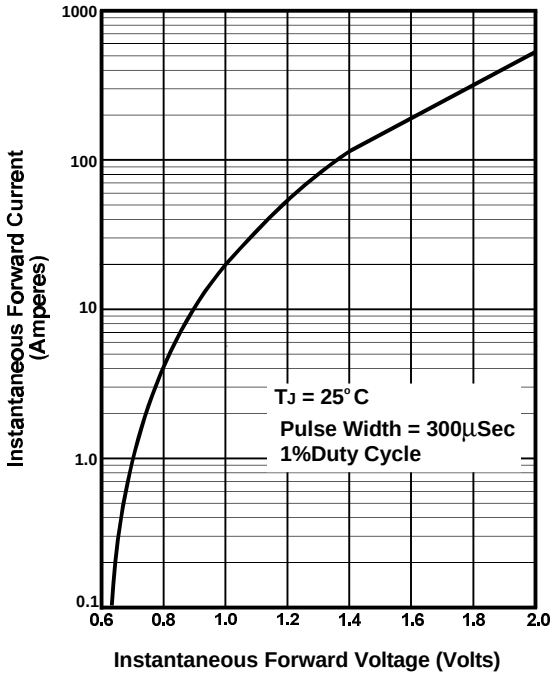


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

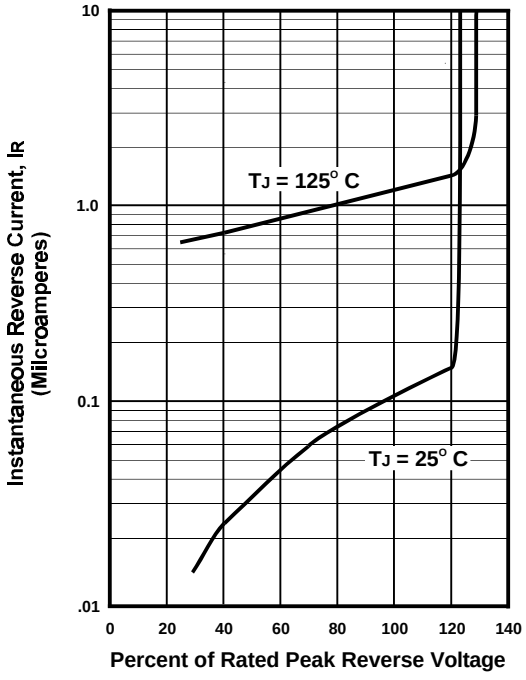


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS