

## 15 AMP SILICON BRIDGE RECTIFIERS

### FEATURES

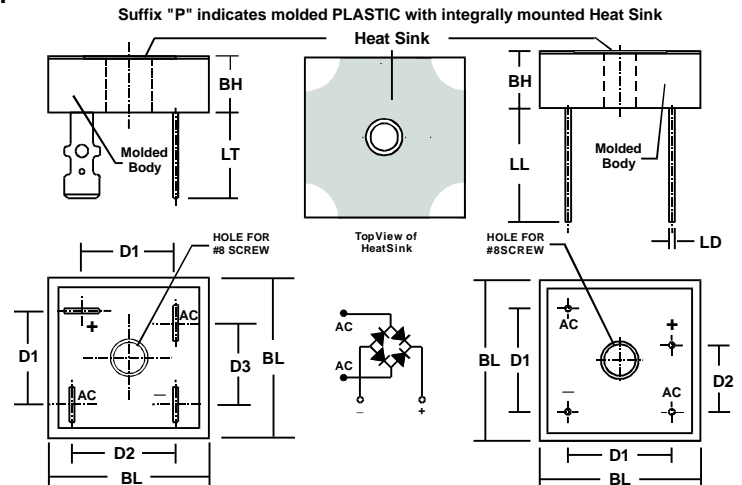
- **VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical < 2%, Max. < 10% of Die Area)**
- **BUILT-IN STRESS RELIEF MECHANISM FOR SUPERIOR RELIABILITY AND PERFORMANCE**
- **INTEGRALLY MOLDED HEAT SINK PROVIDES VERY LOW THERMAL RESISTANCE FOR MAXIMUM 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 (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 - 0.7 Ounces (20.0 Grams)  
Wire Leads - 0.55 Ounce (16.0 Grams)

### MECHANICAL SPECIFICATION

#### SERIES: DB1500P - DB1510P and ADB1504P - ADB1508P



SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
BL	28.4	28.7	1.12	1.13
BH	9.6	9.8	0.38	0.39
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

SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
BL	28.4	28.7	1.12	1.13
BH	9.6	9.8	0.38	0.39
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

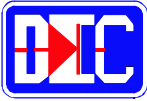
Suffix "T" indicates FAST-ON TERMINALS

Suffix "W" indicates WIRE LEADS

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

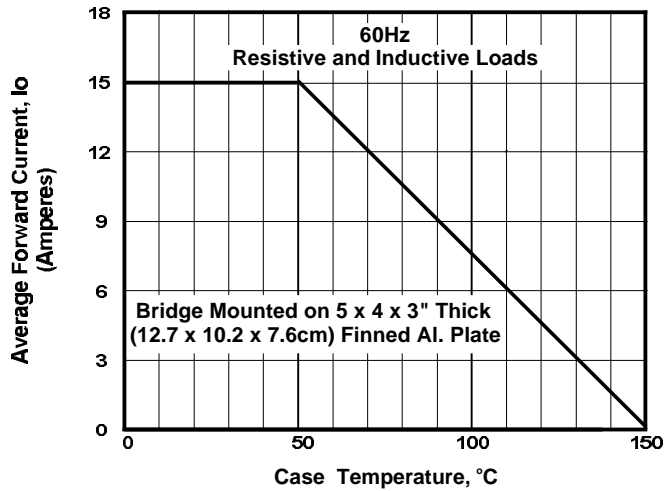
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive loads, derate current by 20%.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS									UNITS	
		CONTROLLED AVALANCHE			NON-CONTROLLED AVALANCHE							
Series Number		ADB 1504P	ADB 1506P	ADB 1508P	DB 1500P	DB 1501P	DB 1502P	DB 1504P	DB 1506P	DB 1508P	DB 1510P	
Maximum DC Blocking Voltage	V <sub>RM</sub>											VOLTS
Working Peak Reverse Voltage	V <sub>RWM</sub>	400	600	800	50	100	200	400	600	800	1000	
Maximum Peak Recurrent Reverse Voltage	V <sub>RRM</sub>											
RMS Reverse Voltage	V <sub>R (RMS)</sub>	280	420	560	35	70	140	280	420	560	700	
Rating for Fusing (Non Repetitive; 1mS < t < 8.3mS)	I <sup>2</sup> t	375									AMPS <sup>2</sup> SEC	
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>	300									AMPS	
Average Forward Rectified Current @ T <sub>c</sub> = 50° C	I <sub>o</sub>	15										
Junction Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150									°C	
Minimum Avalanche Voltage	V <sub>(BR) Min</sub>	450	650	850	n/a						VOLTS	
Maximum Avalanche Voltage	V <sub>(BR) Max</sub>	900	1100	1300	n/a							
Maximum Forward Voltage (Per Diode) at 7.5 Amps DC	V <sub>FM</sub>	1.03										
Maximum Reverse Current at Rated V <sub>RM</sub> @ T <sub>A</sub> = 25° C @ T <sub>A</sub> = 125° C	I <sub>RM</sub>	1 10									μA	
Minimum Insulation Breakdown Voltage (Circuit to Case)	V <sub>ISO</sub>	2500									VOLTS	
Typical Thermal Resistance, Junction to Case	R <sub>θJC</sub>	1.4									°C/W	

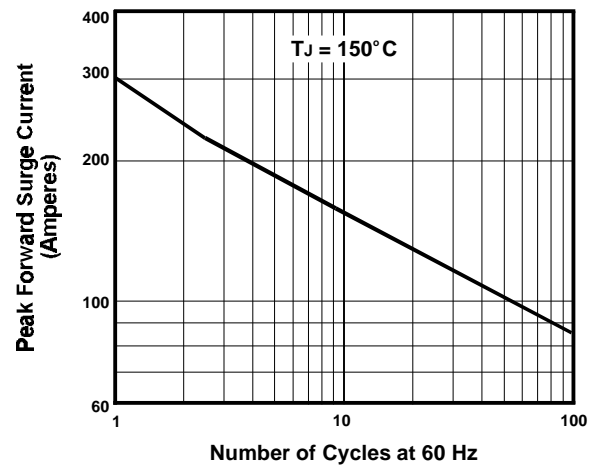


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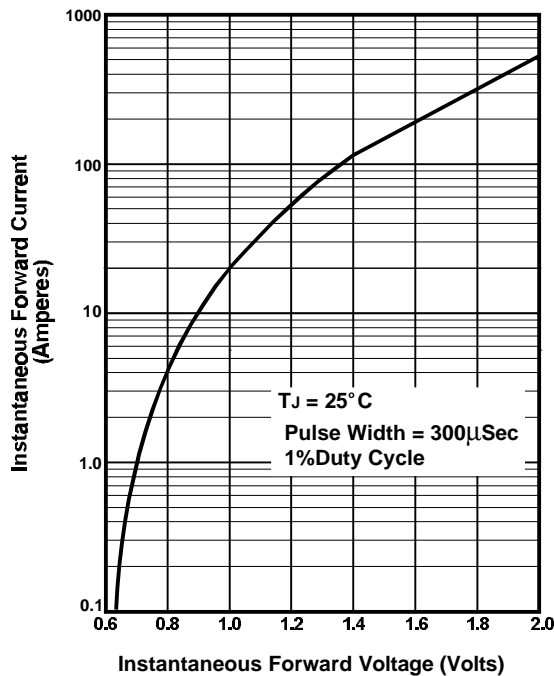
**RATING & CHARACTERISTIC CURVES FOR SERIES DB1500P - DB1510P and SERIES ADB1504P - ADB1508P**



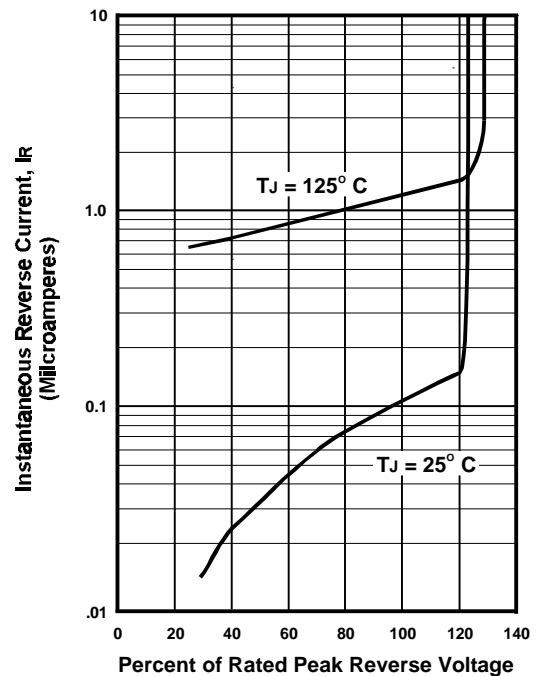
**FIGURE 1. FORWARD CURRENT DERATING CURVE**



**FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE**



**FIGURE 4. TYPICAL REVERSE CHARACTERISTICS**