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Looking for: KBPC35005, KBPC3501, KBPC3502, KBPC3504  
 KBPC3506, KBPC3508, KBPC3510?

or  
 GBPC35005, GBPC3501, GBPC3502, GBPC3504, GBPC3506  
 GBPC3508, GBPC3510?

or  
 MDA3500, MDA3501, MDA3502, MDA3504, MDA3506,  
 MDA3508, MDA3510

## 35 AMP SILICON BRIDGE RECTIFIERS

### FEATURES

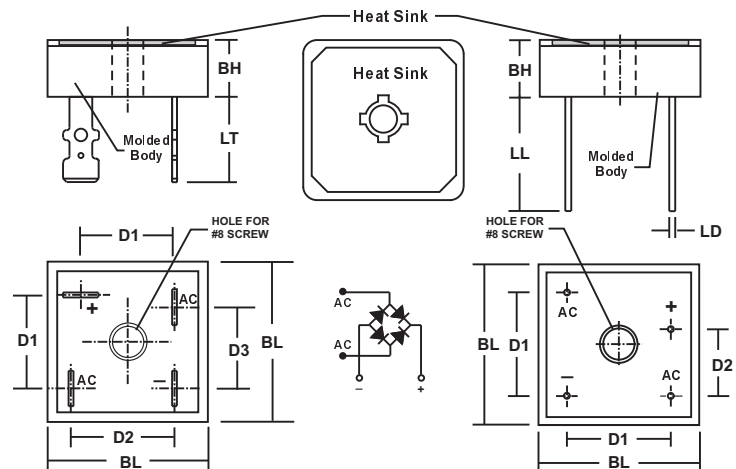
- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical < 2%, Max. < 10% of Die Area)
- BUILT-IN STRESS RELIEF MECHANISM FOR SUPERIOR RELIABILITY AND PERFORMANCE
- INTEGRALLY MOLDED HEAT SINK PROVIDES VERY LOW THERMAL RESISTANCE FOR MAXIMUM HEAT DISSIPATION
- **UL RECOGNIZED - FILE #E124962**
- **RoHS COMPLIANT**

### MECHANICAL DATA

- Case: Case: Molded epoxy with integral heat sink  
Epoxy carries a U/L Flammability rating of 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



| 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  |

| 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 "T" indicates FAST-ON TERMINALS

Suffix "W" indicates WIRE LEADS

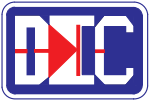
### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

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 3504P            | ADB 3506P | ADB 3508P | DB 3500P                 | DB 3501P | DB 3502P | DB 3504P | DB 3506P | DB 3508P | DB 3510P |       |
| 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      |       |
| Peak Forward Surge Current. Single 60Hz Half-Sine Wave Superimposed on Rated Load (JEDEC Method). T <sub>J</sub> = 125° C | I <sub>FSM</sub>      | 500                  |           |           |                          |          |          |          |          |          |          | AMPS  |
| Average Forward Rectified Current @ T <sub>c</sub> = 75° C  | I <sub>O</sub>        | 35                   |           |           |                          |          |          |          |          |          |          |       |
| Junction Temperature Range  | T <sub>J</sub>        | -55 to +150          |           |           |                          |          |          |          |          |          |          | °C    |
| Storage Temperature Range   | T <sub>STG</sub>      | -55 to +150          |           |           |                          |          |          |          |          |          |          |       |
| Minimum Avalanche Voltage   | V <sub>(BR) Min</sub> | See Note 1           |           |           | n/a                      |          |          |          |          | VOLTS    |          |       |
| Maximum Avalanche Voltage   | V <sub>(BR) Max</sub> | See Note 1           |           |           | n/a                      |          |          |          |          |          |          |       |
| Maximum Forward Voltage (Per Diode) at 17.5 Amps DC   | V <sub>FM</sub>       | 1.05                 |           |           |                          |          |          |          |          |          |          |       |
| Maximum Reverse Current at Rated V <sub>RM</sub><br>@ T <sub>A</sub> = 25° C<br>@ T <sub>A</sub> = 125° C                 | I <sub>RM</sub>       | 1<br>50              |           |           |                          |          |          |          |          |          |          | μA    |
| Minimum Insulation Breakdown Voltage (Circuit to Case)  | V <sub>ISO</sub>      | 2500                 |           |           |                          |          |          |          |          |          |          | VOLTS |
| Typical Thermal Resistance, Junction to Case  | R <sub>θJC</sub>      | 1.2                  |           |           |                          |          |          |          |          |          |          | °C/W  |

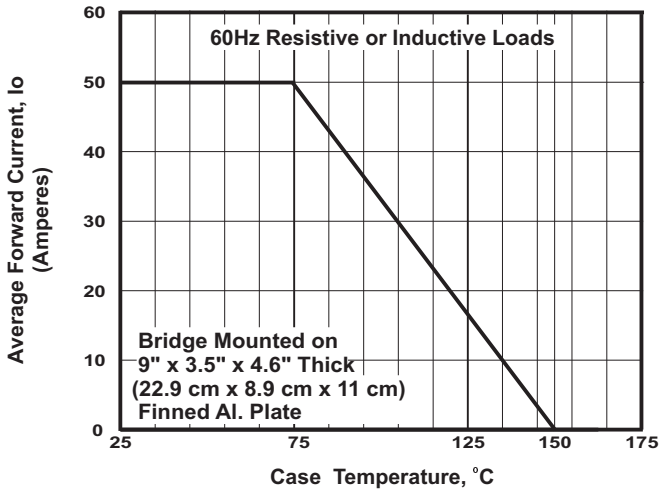
NOTES: (1) These bridges exhibit the avalanche characteristic at breakdown. If your application requires a specific breakdown voltage range, please contact us.

Data Sheet No. BRDB-3500P-1C  
 ADBD-3500P-1C

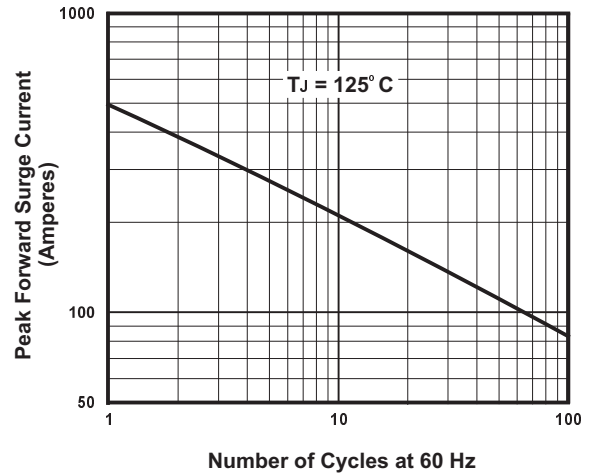


## 35 AMP SILICON BRIDGE RECTIFIERS

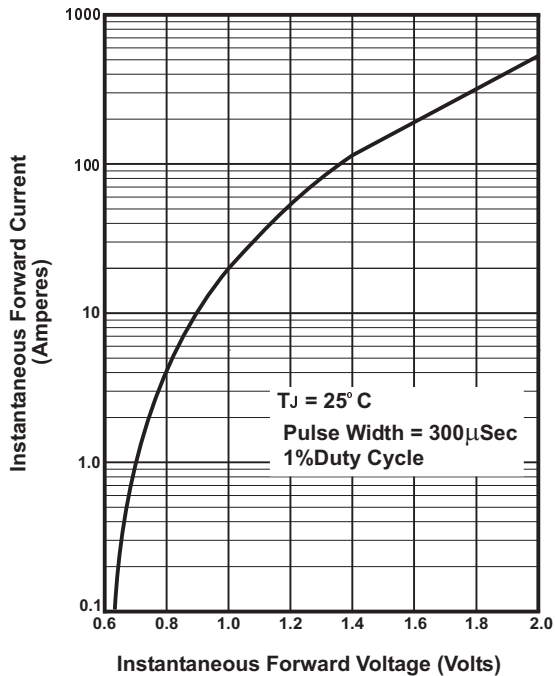
**RATING & CHARACTERISTIC CURVES FOR SERIES DB3500P - DB3510P and SERIES ADB3504P - ADB3508P**



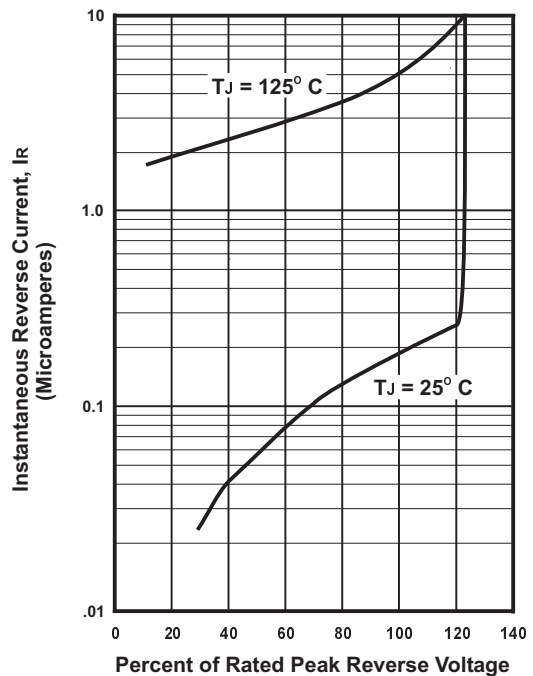
**FIGURE 1. FORWARD CURRENT DERATING CURVE**



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



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



**FIGURE 4. TYPICAL REVERSE CHARACTERISTICS**