

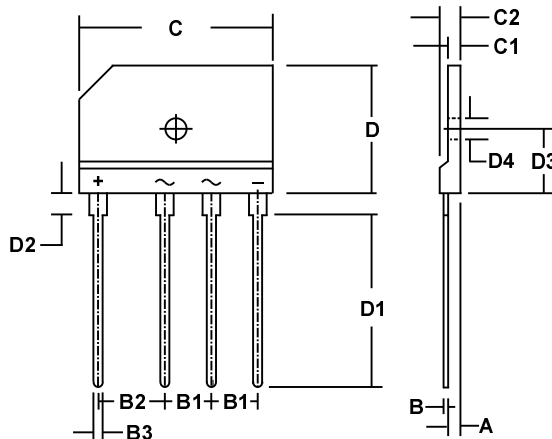


## 8 AMP SILICON BRIDGE RECTIFIERS

### 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
- SURGE OVERLOAD RATING TO 400 AMPS PEAK
- THRU-HOLE FOR EASY HEAT SINK MOUNTING
- **UL RECOGNIZED - FILE #E124962**
- **RoHS COMPLIANT**

### MECHANICAL SPECIFICATION



### MECHANICAL DATA

- Case: Molded Epoxy (UL Flammability Rating 94V-0)
- Terminals: Silver plated pins
- Soldering: Per MIL-STD 750
- Polarity: Marked on case
- Mounting Position: Any  
Mounting torque = 5 in lb max.
- Weight: 0.26 Ounces (7 Grams)

| SYM | MILLIMETERS |      | INCHES |       |
|-----|-------------|------|--------|-------|
|     | MIN         | MAX  | MIN    | MAX   |
| A   | 2.5         | 2.9  | 0.098  | 0.114 |
| B   | 0.6         | 0.8  | 0.024  | 0.031 |
| B1  | 7.3         | 7.7  | 0.287  | 0.303 |
| B2  | 9.8         | 10.2 | 0.386  | 0.402 |
| B3  | 0.9         | 1.1  | 0.035  | 0.043 |
| C   | 29.7        | 30.3 | 1.17   | 1.19  |
| C1  | 3.6         | 4.0  | 0.142  | 0.157 |
| C2  | 4.4         | 4.8  | 0.173  | 0.189 |
| D   | 19.7        | 20.3 | 0.776  | 0.799 |
| D1  | 13.2        | 13.8 | 0.520  | 0.543 |
| D2  | 3.8         | 4.2  | 0.126  | 0.165 |
| D3  | 10.8        | 11.2 | 0.425  | 0.441 |
| D4  | 3.1         | 3.3  | 0.122  | 0.130 |

### SERIES DT8C00 - DT8C10

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

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

| PARAMETER (TEST CONDITIONS)                                                                                                  | SYMBOL                                                | RATINGS          |         |         |         |         |         |         |       | UNITS |      |
|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------|---------|---------|---------|---------|---------|---------|-------|-------|------|
| Series Number                                                                                                                |                                                       | DT8C 00          | DT8C 01 | DT8C 02 | DT8C 04 | DT8C 06 | DT8C 08 | DT8C 10 |       |       |      |
| Maximum DC Blocking Voltage                                                                                                  | V <sub>RM</sub>                                       | 50               | 100     | 200     | 400     | 600     | 800     | 1000    | VOLTS |       |      |
| Maximum RMS Voltage                                                                                                          | V <sub>RMS</sub>                                      | 35               | 70      | 140     | 280     | 420     | 560     | 700     |       |       |      |
| Maximum Peak Recurrent Reverse Voltage                                                                                       | V <sub>RRM</sub>                                      | 50               | 100     | 200     | 400     | 600     | 800     | 1000    |       |       |      |
| Average Forward Rectified Current<br>T <sub>c</sub> = 100° C (Notes 1, 3)                                                    | I <sub>o</sub>                                        | 8                |         |         |         |         |         |         |       | AMPS  |      |
| Peak Forward Surge Current. Single 60Hz Half-Sine Wave<br>Superimposed on Rated Load (JEDEC Method). T <sub>J</sub> = 150° C | I <sub>FSM</sub>                                      | 400              |         |         |         |         |         |         |       |       |      |
| Maximum Forward Voltage (Per Diode) at 8 Amps DC                                                                             | V <sub>FM</sub>                                       | 0.95 (Typ. 0.90) |         |         |         |         |         |         |       | VOLTS |      |
| Maximum Average DC Reverse Current<br>At Rated DC Blocking Voltage                                                           | @ T <sub>A</sub> = 25° C<br>@ T <sub>A</sub> = 125° C | I <sub>RM</sub>  | 1<br>50 |         |         |         |         |         |       |       | μA   |
| Typical Thermal Resistance<br>Junction to Ambient (Note 2)<br>Junction to Case (Note 1)                                      | R <sub>θJA</sub><br>R <sub>θJC</sub>                  |                  | 16<br>3 |         |         |         |         |         |       |       | °C/W |
| Minimum Insulation Breakdown Voltage (Circuit to Case)                                                                       | V <sub>ISO</sub>                                      | 2500             |         |         |         |         |         |         |       | VOLTS |      |
| Operating and Storage Temperature Range                                                                                      | T <sub>J</sub> , T <sub>STG</sub>                     | -55 to +150      |         |         |         |         |         |         |       | °C    |      |

NOTES: (1) Bridge mounted on 3.2" sq. x 0.12" thick (8.2cm sq. x 0.3cm) aluminum plate  
 (2) Bridge mounted on PC Board with 0.5" sq. (12mm sq.) copper pads and bridge lead length of 0.375" (9.5mm)  
 (3) Bolt bridge on heat sink with #6 screw, using silicon thermal compound between bridge and mounting surface for maximum heat transfer.

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