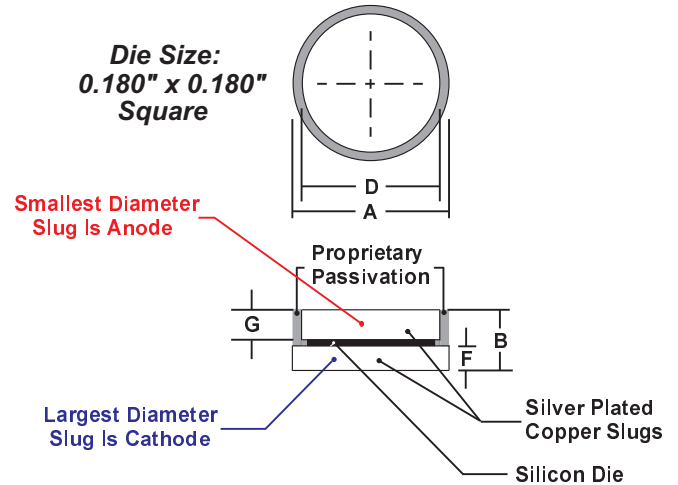


## 50 AMP JUMBO DIODE CELL

### FEATURES

- Void Free Vacuum Die Soldering For Maximum Mechanical Strength and Heat Dissipation (Solder Voids: Typical < 2%, Max. < 10% of Die Area)
- Biggest Effective Die Area for the 50 Amp Class of Jumbo Diode Cells
- High Temperature Solder (Solidus 287°C, Liquidus 296°C) to Allow Higher Operating And Assembly Temperatures
- Copper Headers Are Silver Plated For Easy Soldering And Superior Solder Joints
- Largest Diameter Header Is Cathode

### MECHANICAL SPECIFICATION



| DIM | MILLIMETERS |      | INCHES |       |
|-----|-------------|------|--------|-------|
|     | MIN         | MAX  | MIN    | MAX   |
| A   | 7.25        | 7.35 | 0.285  | 0.290 |
| B   | 2.05        | 2.15 | 0.080  | 0.085 |
| D   | 6.50        | 6.60 | 0.256  | 0.260 |
| F   | 0.72        | 0.82 | 0.028  | 0.032 |
| G   | 0.96        | 1.07 | 0.038  | 0.042 |

**RoHS COMPLIANT**

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

| PARAMETER (TEST CONDITIONS)   | SYMBOL   | RATINGS            |           |           |           |           |           |           | UNITS |
|---|----------|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------|
|   |          | BAR 5001D          | BAR 5002D | BAR 5004D | BAR 5006D | BAR 5008D | BAR 5010D | BAR 5012D |       |
| Series Number   |          |                    |           |           |           |           |           |           |       |
| Maximum DC Blocking Voltage   | VRRM     | 100                | 200       | 400       | 600       | 800       | 1000      | 1200      | VOLTS |
| Maximum RMS Voltage   | VRMS     | 70                 | 140       | 280       | 420       | 560       | 700       | 840       |       |
| Maximum Peak Recurrent Reverse Voltage  | VRRM     | 100                | 200       | 400       | 600       | 800       | 1000      | 1200      |       |
| Average Forward Rectified Current @ Tc=125 °C                                       | IO       | 50                 |           |           |           |           |           |           | AMPS  |
| Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load) | IFSM     | 600                |           |           |           |           |           |           |       |
| Maximum Forward Voltage Drop at 50 Amps DC  | VFM      | 1.1 (1.05 Typical) |           |           |           |           | 1.15      |           | VOLTS |
| Maximum Average DC Reverse Current @ TA = 25 °C                                     | IRM      | 2                  |           |           |           |           |           |           | µA    |
| At Rated DC Blocking Voltage @ TA = 125 °C  |          | 50                 |           |           |           |           |           |           |       |
| Maximum Thermal Resistance, Junction to Case (Note 1)                               | RθJC     | 0.8                |           |           |           |           |           |           | °C/W  |
| Junction Operating and Storage Temperature Range                                    | TJ, TSTG | -65 to +175        |           |           |           |           |           |           | °C    |

Notes: 1) Single Side Cooled

BAR504