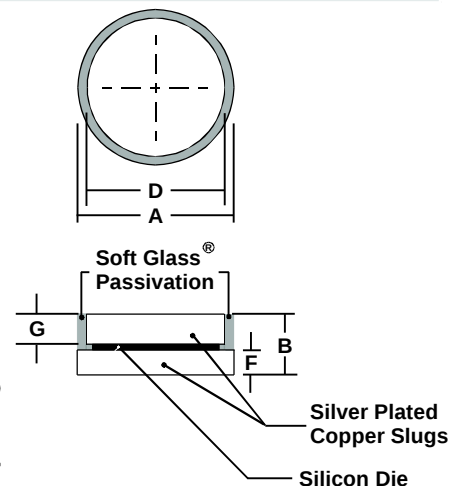


## 35 AMP JUMBO DIODE CELLS

### FEATURES

- PROPRIETARY **SOFT GLASS<sup>®</sup>** JUNCTION PASSIVATION FOR SUPERIOR RELIABILITY AND PERFORMANCE
- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical < 2%, Max. < 10% of Die Area)
- Large die for high power capability
- Very low forward voltage drop
- Built-in stress relief mechanism for die protection
- Silver plated substrates for easy soldering or installation
- Soldering temperature: 250 °C maximum
- Protects expensive automotive electronics and mobile equipment

Die Size:  
0.165" x 0.165"  
Square



SOFT GLASS<sup>®</sup> DIODE

| DIM | MILLIMETERS |      | INCHES |       |
|-----|-------------|------|--------|-------|
|     | MIN         | MAX  | MIN    | MAX   |
| A   | 5.33        | 5.46 | 0.210  | 0.215 |
| B   | 2.03        | 2.16 | 0.080  | 0.085 |
| D   | 4.70        | 4.83 | 0.185  | 0.190 |
| F   | 0.64        | 0.76 | 0.025  | 0.030 |
| G   | 0.96        | 1.09 | 0.038  | 0.043 |

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

| PARAMETER (TEST CONDITIONS)                                                                          | SYMBOL  | RATINGS            |           |           |           |           |           |           | UNITS |
|------------------------------------------------------------------------------------------------------|---------|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------|
| Series Number                                                                                        |         | BAR 3500D          | BAR 3501D | BAR 3502D | BAR 3504D | BAR 3506D | BAR 3508D | BAR 3510D |       |
| Maximum Recurrent Peak Reverse Voltage                                                               | VRRM    | 50                 | 100       | 200       | 400       | 600       | 800       | 1000      | VOLTS |
| Working Peak Reverse Voltage                                                                         | VRWM    |                    |           |           |           |           |           |           |       |
| Maximum DC Blocking Voltage                                                                          | VDC     |                    |           |           |           |           |           |           |       |
| Non-repetitive Peak Reverse Voltage (Half wave, Single phase, 60Hz peak)                             | VRSM    | 60                 | 120       | 240       | 480       | 720       | 960       | 1200      |       |
| Average Rectified Forward Current (Single phase, Resistive load, 60Hz)                               | Io      | 35                 |           |           |           |           |           |           | AMPS  |
| Non-repetitive Peak Forward Surge Current (Half wave, Single phase, 60Hz sine applied to rated load) | IFSM    | 600                |           |           |           |           |           |           |       |
| Repetitive Peak Reverse Surge Current (Time constant = 10 mSec, Duty cycle ≤ 1.0%, Tc = 25 °C)       | IRSM    | 110                |           |           |           |           |           |           |       |
| Maximum Instantaneous Forward Voltage (If = 80A @300 μSec pulse, Tc = 25°C)                          | VF      | 1.1 (1.05 Typical) |           |           |           |           | 1.2       |           | VOLTS |
| Maximum DC Reverse Current @ Tc = 25 °C<br>At Rated DC Blocking Voltage @ Tc = 100 °C                | IR      | 0.5<br>50          |           |           |           |           |           |           | μA    |
| Maximum Thermal Resistance, Junction to Lead (Note 1)                                                | RθJC    | 0.9                |           |           |           |           |           |           | °C/W  |
| Operating & Storage Temperature Range                                                                | TJ,TSTG | -65 to +175        |           |           |           |           |           |           | °C    |

Notes: 1) Single Side Cooled