

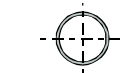


## 75 AMP JUMBO DIODE CELL

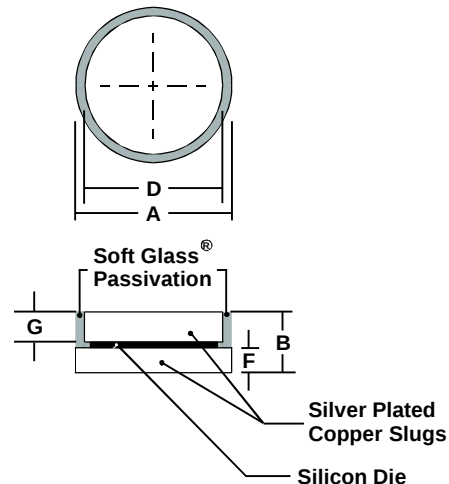
### FEATURES

- PROPRIETARY **SOFT GLASS®** JUNCTION PASSIVATION FOR SUPERIOR RELIABILITY AND PERFORMANCE
- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical  $\leq 2\%$ , Max.  $\leq 10\%$  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

### MECHANICAL SPECIFICATION



Die Size:  
0.250" Diameter  
Round die



| 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 |

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

| PARAMETER (TEST CONDITIONS)                                                                  | SYMBOL   | RATINGS             |           |           |           |           |           |           | UNITS |
|----------------------------------------------------------------------------------------------|----------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------|
| Series Number                                                                                |          | BAR 7500D           | BAR 7501D | BAR 7502D | BAR 7504D | BAR 7506D | BAR 7508D | BAR 7510D |       |
| Maximum DC Blocking Voltage                                                                  | VRRM     | 50                  | 100       | 200       | 400       | 600       | 800       | 1000      | VOLTS |
| Maximum RMS Voltage                                                                          | VRWM     |                     |           |           |           |           |           |           |       |
| Maximum Peak Recurrent Reverse Voltage                                                       | VDC      |                     |           |           |           |           |           |           |       |
| Non-repetitive Peak Reverse Voltage (Half wave, single phase, 60 Hz peak)                    | VRSM     | 60                  | 120       | 240       | 480       | 720       | 960       | 1200      |       |
| Average Forward Rectified Current @ Tc=125 °C                                                | IO       | 75                  |           |           |           |           |           |           | AMPS  |
| Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)          | IFSM     | 800                 |           |           |           |           |           |           |       |
| Repetitive Peak Reverse Surge Current (Half wave, single phase, 60 Hz applied to rated load) | IRSM     | 140                 |           |           |           |           |           |           |       |
| Maximum Instantaneous Forward Voltage Drop (IF=100A @300 μSec Pulse, Tc=25 °C)               | VFM      | 1.05 (1.00 Typical) |           |           |           |           | 1.10      |           | 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

5.00 Rev0500