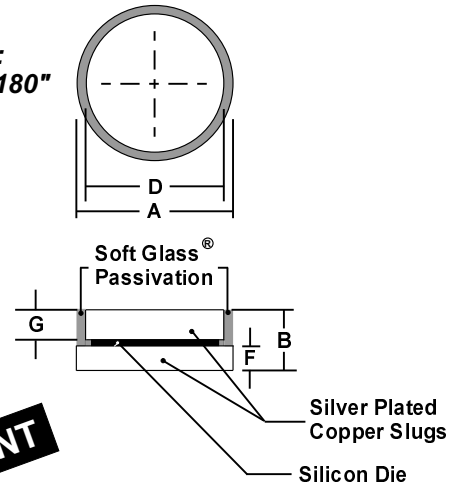


## 50 AMP JUMBO DIODE CELL

### 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  $\leq 2\%$ , 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

Die Size:  
 0.180" x 0.180"  
 Square



**RoHS COMPLIANT**

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
		BAR 5001D	BAR 5002D	BAR 5004D	BAR 5006D	BAR 5008D	BAR 5010D	BAR 5012D	
Series Number									
Maximum DC Blocking Voltage	V <sub>RRM</sub>	100	200	400	600	800	1000	1200	VOLTS
Maximum RMS Voltage	V <sub>RMS</sub>	70	140	280	420	560	700	840	
Maximum Peak Recurrent Reverse Voltage	V <sub>RRM</sub>	100	200	400	600	800	1000	1200	
Average Forward Rectified Current @ T <sub>c</sub> =125 °C	I <sub>O</sub>	50							AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I <sub>FSM</sub>	600							
Maximum Forward Voltage Drop at 50 Amps DC	V <sub>FM</sub>	1.1 (1.05 Typical)					1.15		VOLTS
Maximum Average DC Reverse Current @ T <sub>A</sub> = 25 °C	I <sub>RM</sub>	2							μA
At Rated DC Blocking Voltage @ T <sub>A</sub> = 125 °C		50							
Maximum Thermal Resistance, Junction to Case (Note 1)	R <sub>θJC</sub>	0.8							°C/W
Junction Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175							°C

Notes: 1) Single Side Cooled

BAR506