

## 75 AMP BUTTON DIODES

### FEATURES

- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical  $\leq 2\%$ , Max.  $\leq 10\%$  of Die Area)
- LARGE **ROUND** DIE ( $1/4"$ ) FOR HIGHEST CURRENT AND POWER HANDLING CAPABILITY IN EXISTING STANDARD MOLDED BUTTON PACKAGE
- HIGH HEAT HANDLING CAPABILITY WITH VERY LOW THERMAL STRESS
- Proprietary SOFT GLASS junction passivation for superior reliability and performance
- Very low forward voltage drop
- Peak performance at elevated temperatures: 75A @  $T_J=150^\circ\text{C}$

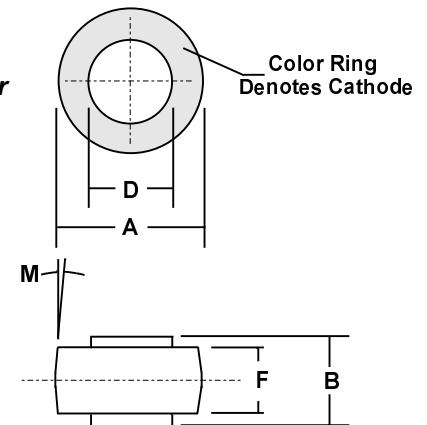
### MECHANICAL DATA

- Case: Molded Epoxy (UL Flammability Rating 94V-0)
- Finish: All external surfaces are corrosion resistant and the contact areas are readily solderable
- Soldering Temperature:  $250^\circ\text{C}$  maximum
- Mounting Position: Any
- Polarity: Color band denotes cathode
- Weight: 0.6 Ounces (1.8 Grams)

**RoHS COMPLIANT**

### MECHANICAL SPECIFICATION

Die Size:  
0.250" Diameter  
Round



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	9.78	10.29	0.385	0.405
B	6.05	6.20	0.238	0.244
D	5.54	6.60	0.218	0.220
F	4.19	4.45	0.165	0.175
M	5° NOM		5° NOM	

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS							UNITS
Series Number		BAR 7500	BAR 7501	BAR 7502	BAR 7504	BAR 7506	BAR 7508	BAR 7510	
Maximum DC Blocking Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	VOLTS
Maximum RMS Voltage	V <sub>RWM</sub>								
Maximum Peak Recurrent Reverse Voltage	V <sub>DC</sub>								
Non-repetitive Peak Reverse Voltage (Half wave, single phase, 60 Hz peak)	V <sub>RSM</sub>	60	120	240	480	720	960	1200	
Average Forward Rectified Current @ Tc=150 °C	I <sub>O</sub>	75							AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I <sub>FSM</sub>	800							
Maximum Forward Voltage Drop at 75 Amp DC	V <sub>FM</sub>	1.1 (Typical 1.05)					1.15		VOLTS
Maximum Average DC Reverse Current @ T <sub>A</sub> = 25 °C At Rated DC Blocking Voltage @ T <sub>A</sub> = 100 °C	I <sub>RM</sub>	1 50							μA
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

BAR 75