

## 25 AMP BUTTON DIODES

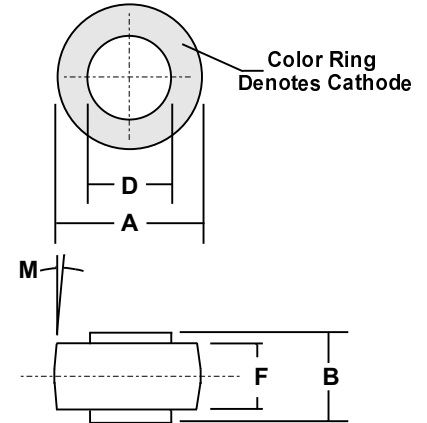
### FEATURES

- **RoHS COMPLIANT**
- GLASS PASSIVATED SILICON DICE
- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical  $\leq 2\%$ , Max.  $\leq 10\%$  of Die Area)

### MECHANICAL DATA

- Case: Molded Epoxy (UL Flammability Rating 94V-O)
- Finish: All external surfaces are silver plated for superior solderability
- Soldering Temperature: 265 °C maximum
- Mounting Position: Any
- Polarity: Color band denotes cathode
- Weight: 0.6 Ounces (1.8 Grams)

Die Size:  
 0.160" x 0.160"  
 Square



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	9.78	10.29	0.385	0.405
B	5.97	6.35	0.235	0.250
D	5.46	5.71	0.215	0.225
F	4.19	4.45	0.165	0.175
M	5° NOM		5° NOM	

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS							UNITS
		BAR 2500	BAR 2501	BAR 2502	BAR 2504	BAR 2506	BAR 2508	BAR 2510	
Series Number									
Maximum DC Blocking Voltage	V <sub>RRM</sub>								VOLTS
Maximum RMS Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	
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 @ T <sub>c</sub> = 150 °C	I <sub>O</sub>	25							AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I <sub>FSM</sub>	400							
Maximum Forward Voltage Drop at 25 Amp DC	V <sub>FM</sub>	1.05 (Typical 1.00)							VOLTS
Maximum Average DC Reverse Current @ T <sub>A</sub> = 25 °C	I <sub>RM</sub>	1							μA
At Rated DC Blocking Voltage @ T <sub>A</sub> = 100 °C		50							
Maximum Thermal Resistance, Junction to Case (Note 1)	R <sub>θJC</sub>	0.95							°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



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### RATING & CHARACTERISTIC CURVES FOR SERIES BAR2500 TO BAR2510

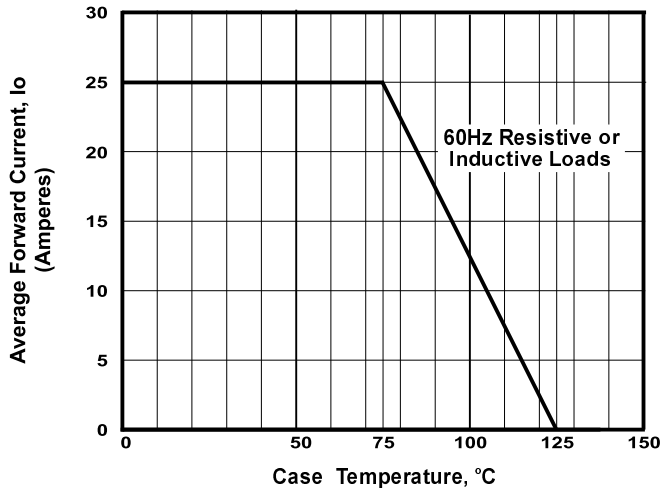


FIGURE 1. FORWARD CURRENT DERATING CURVE

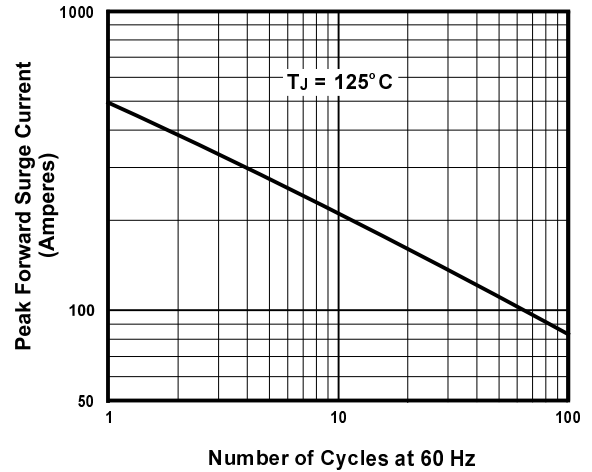


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

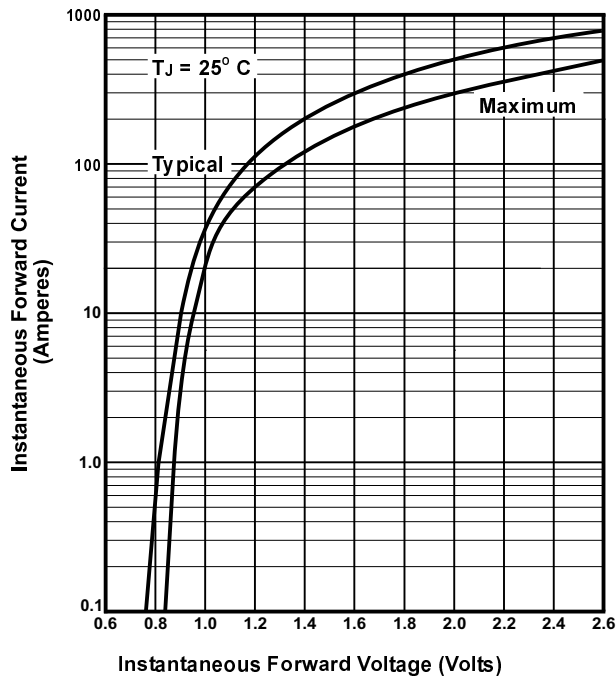


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC

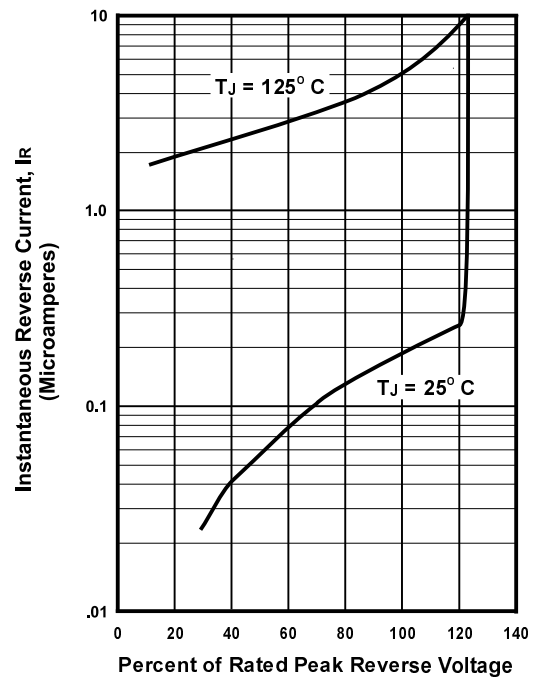


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS