

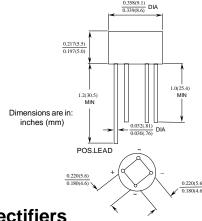
# Discrete POWER & Signal Technologies

## 2W005G - 2W10G

### **Features**

- Glass passivated junction.
- Ideal for printed circuit board.
- Reliable low cost construction technique results in inexpensive product.
- · High surge current capability.





# 2.0 Ampere Glass Passivated Bridge Rectifiers

### **Absolute Maximum Ratings\***

T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units	
I <sub>o</sub>	Average Rectified Current @ T <sub>A</sub> = 50°C	2.0	Α	
İ <sub>f</sub> (surge)	Peak Forward Surge Current  8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	60	А	
P <sub>D</sub>	Total Device Dissipation Derate above 25°C	3.13 25	W mW/°C	
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,** per leg	40	°C/W	
$R_{\theta JL}$	Thermal Resistance, Junction to Lead,** per leg	15	°C/W	
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C	
TJ	Operating Junction Temperature	-55 to +150	°C	

<sup>\*</sup>These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### **Electrical Characteristics**

 $T_A = 25$ °C unless otherwise noted

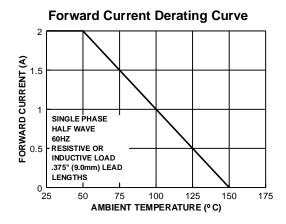
Parameter	Device						Units	
	005G	01G	02G	04G	06G	08G	10G	1
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated V <sub>R</sub> )	50	100	200	400	600	800	1000	V
Maximum Reverse Leakage Current, per leg @ rated $V_R$ $T_A = 25$ °C $T_A = 125$ °C				5.0 500				μΑ μΑ
Maximum Forward Voltage Drop, per bridge @ 2.0 A	1.1							V
$I^2$ t rating for fusing t < 8.3 ms	10						A <sup>2</sup> Sec	
Typical Junction Capacitance, per leg $V_R = 4.0 \text{ V}$ , $f = 1.0 \text{ MHz}$				19				pF

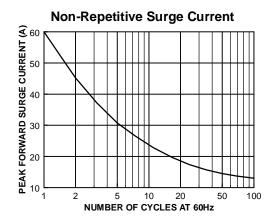
<sup>\*\*</sup>Device mounted on PCB with 0.375" (9.5 mm) lead length.

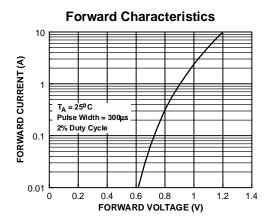
### **Glass Passivated Bridge Rectifiers**

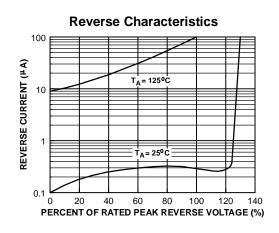
(continued)

### **Typical Characteristics**









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E<sup>2</sup>CMOS<sup>™</sup> PowerTrench<sup>™</sup>

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