

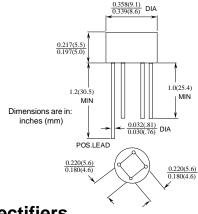
# Discrete POWER & Signal Technologies

# W005G - W10G

### **Features**

- Surge overload rating: 50 amperes peak.
- Glass passivated junction.
- Ideal for printed circuit board.
- Reliable low cost construction technique results in inexpensive product.





# 1.5 Ampere Glass Passivated Bridge Rectifiers

### **Absolute Maximum Ratings\*** T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units	
Io	Average Rectified Current @ T <sub>A</sub> = 50°C	1.5	Α	
İ <sub>f(surge)</sub>	Peak Forward Surge Current  8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	50	А	
$P_D$	Total Device Dissipation Derate above 25°C	3.47 28	W mW/°C	
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,** per leg	36	°C/W	
$R_{\theta JL}$	Thermal Resistance, Junction to Lead,** per leg	11	°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<sub>A</sub> = 25°C unless otherwise noted

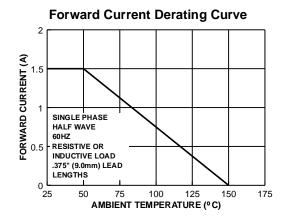
Parameter	Device						Units	
	005G	01G	02G	04G	06G	08G	10G	
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated V <sub>R</sub> )	50	100	200	400	600	800	1000	V
Maximum Reverse Leakage,					l	l.		
total bridge @ rated V <sub>R</sub> T <sub>A</sub> = 25°C				5.0				μΑ
T <sub>A</sub> = 125°C				500				μΑ
Maximum Forward Voltage Drop,								
per bridge @ 1.0 A	1.0							V
$I^2$ t rating for fusing $t < 8.3 \text{ ms}$				10				A <sup>2</sup> Sec
Typical Junction Capacitance, per leg	15						pF	
$V_R = 4.0 \text{ V}, f = 1.0 \text{ MHz}$								

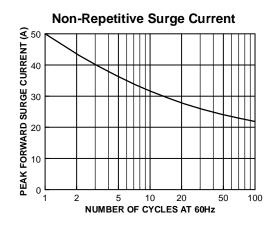
<sup>\*\*</sup>Device mounted on PCB with 0.375" (9.5 mm) lead length.

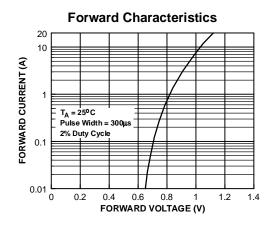
### **Glass Passivated Bridge Rectifiers**

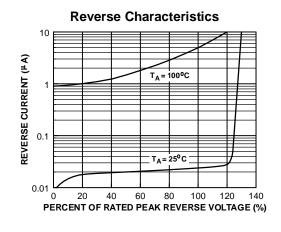
(continued)

### **Typical Characteristics**









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