## W005G, W01G, W02G, W04G, W06G, W08G, W10G

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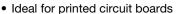
# **Glass Passivated Single-Phase Bridge Rectifier**



PRIMARY CHARACTERISTICS						
Package	WOG					
I <sub>F(AV)</sub>	1.5 A					
V <sub>RRM</sub>	50 V, 100 V, 200 V, 400 V, 600 V, 800 V, 1000 V					
I <sub>FSM</sub>	50 A					
I <sub>R</sub>	5 μΑ					
$V_F$ at $I_F = 1.0 A$	1.0 V					
T <sub>J</sub> max.	150 °C					
Diode variations	Quad					

#### **FEATURES**





Typical I<sub>R</sub> less than 0.1 μA

· High case dielectric strength

· High surge current capability

Solder dip 275 °C max. 10 s, per JESD 22-B106

· Material categorization: For definitions of compliance please see www.vishay.com/doc?99912



#### TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for power supply, adapter, charger, lighting ballaster on consumers, and home appliances applications.

#### **MECHANICAL DATA**

Case: WOG

Molding compound meets UL 94 V-0 flammability rating

Base P/N-E4 - RoHS-compliant, commercial grade

Terminals: Silver plated leads, solderable per

J-STD-002 and JESD22-B102 Polarity: As marked on body

MAXIMUM RATINGS (T <sub>A</sub> = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	W005G	W01G	W02G	W04G	W06G	W08G	W10G	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at 0.375" (9.5 mm) lead length at $T_A = 25$ °C	I <sub>F(AV)</sub>	1.5					Α		
Peak forward surge current single sine-wave superimposed on rated load	I <sub>FSM</sub>	50				Α			
Rating for fusing (t < 8.3 ms)	I <sup>2</sup> t	10				A <sup>2</sup> s			
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	- 55 to + 150					°C		

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>A</sub> = 25 °C unless otherwise noted)								
PARAMETER TEST CONDITIONS SYMBOL VA				UNIT				
Maximum instantaneous forward voltage per diode	I <sub>F</sub> = 1.0 A	V <sub>F</sub>	1.0	V				
Maximum DC reverse current at rated	T <sub>A</sub> = 25 °C	1	5.0					
DC blocking voltage per diode	T <sub>A</sub> = 125 °C	IR	500	μΑ				
Typical junction capacitance per diode	4.0 V, 1 MHz	C <sub>J</sub>	14	pF				

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THERMAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	W005G	W01G	W02G	W04G	W06G	W08G	W10G	UNIT
Typical thermal resistance (1)	$R_{\theta JA}$	36							°C/W
Typical trieffial resistance (*)	$R_{\theta JL}$	11						•	O/VV

#### Note

<sup>(1)</sup> Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5 mm) lead length PCB mounting. PCB size 0.22" x 0.22" (5.5 mm x 5.5 mm)

ORDERING INFORMATION (Example)								
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE				
W06G-E4/51	1.12	51	100	Plastic bag				

### RATINGS AND CHARACTERISTICS CURVES (T<sub>A</sub> = 25 °C unless otherwise noted)

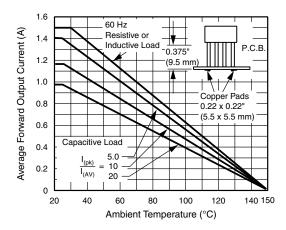


Fig. 1 - Derating Curve Output Rectified Current

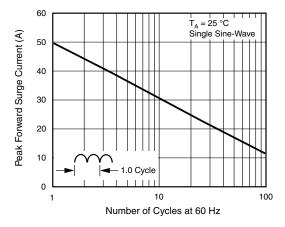


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

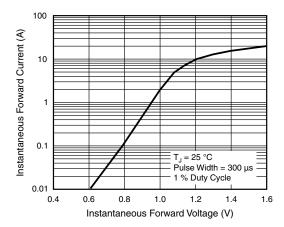


Fig. 3 - Typical Forward Characteristics Per Diode

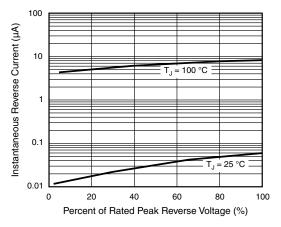


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode



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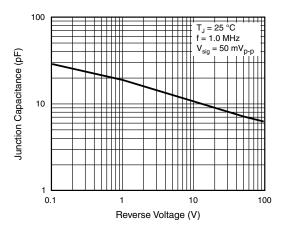


Fig. 5 - Typical Junction Capacitance Per Diode

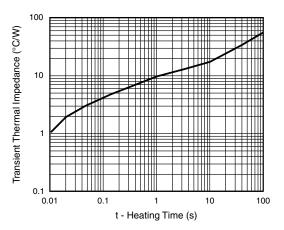
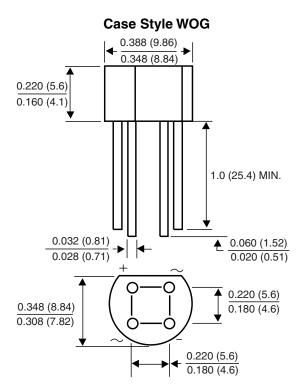


Fig. 6 - Typical Transient Thermal Impedance

### PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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