2W005G, 2W01G, 2W02G, 2W04G, 2W06G, 2W08G, 2W10G

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Vishay General Semiconductor

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



## LINKS TO ADDITIONAL RESOURCES



PRIMARY CHARACTERISTICS							
I <sub>F(AV)</sub>	2.0 A						
V <sub>RRM</sub>	50 V, 100 V, 200 V, 400 V, 600 V, 800 V, 1000 V						
I <sub>FSM</sub>	60 A						
I <sub>R</sub>	5 μΑ						
$V_F$ at $I_F$ = 2.0 A	1.1 V						
T <sub>J</sub> max.	150 °C						
Package	WOG						
Circuit configuration	Quad						

## FEATURES

- UL recognition, file number E54214
- Ideal for printed circuit boards
- Typical I<sub>B</sub> less than 0.5 µA
- High case dielectric strength
- High surge current capability
- Solder dip 260 °C, 40 s
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

## **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

<b>MAXIMUM RATINGS</b> (T <sub>A</sub> = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	2W005G	2W01G	2W02G	2W04G	2W06G	2W08G	2W10G	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	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 <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at 0.375" (9.5 mm) lead length at (fig. 1)	I <sub>F(AV)</sub>	2.0							А
Peak forward surge current single half sine-wave superimposed on rated load	I <sub>FSM</sub>	60					А		
Rating for fusing (t < 8.3 ms)	l <sup>2</sup> t	15					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	<b>TEST CONDITIONS</b>	SYMBOL	2W005G	2W01G	2W02G	2W04G	2W06G	2W08G	2W10G	UNIT
Maximum instantaneous forward voltage drop per diode	I <sub>F</sub> = 2.0 A	V <sub>F</sub> 1.1						V		
Maximum DC reverse		5.0								
current at rated DC blocking voltage per diode	T <sub>A</sub> = 125 °C	I <sub>R</sub>	500						μA	
Typical junction capacitance per diode	4.0 V, 1 MHz	CJ		40	)			20		pF



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<b>THERMAL CHARACTERISTICS</b> ( $T_A = 25 \text{ °C}$ unless otherwise noted)									
PARAMETER	SYMBOL	SYMBOL 2W005G 2W01G 2W02G 2W04G 2W06G 2W08G 2W10G						UNIT	
Typical thermal resistance <sup>(1)</sup>	$R_{\theta JA}$	40							°C/W
Typical thermal resistance of	$R_{\theta JL}$	15						0/10	

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

ORDERING INFORMATION (Example)									
PREFERRED P/N	UNIT WEIGHT (g)	B) PREFERRED PACKAGE CODE BASE QUANTITY DELIVERY MODE							
2W06G-E4/51	1.12	51	100	Plastic bag					

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

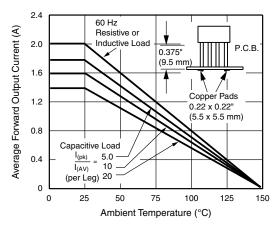


Fig. 1 - Derating Curve Output Rectified Current

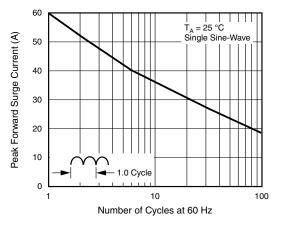


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

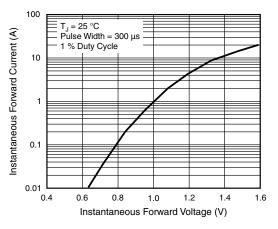


Fig. 3 - Typical Forward Characteristics Per Diode

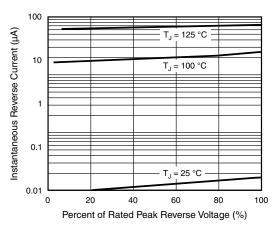


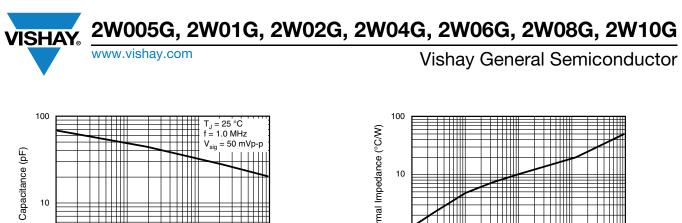
Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

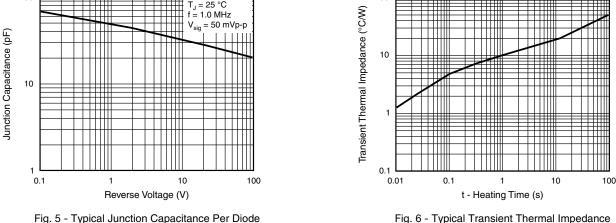
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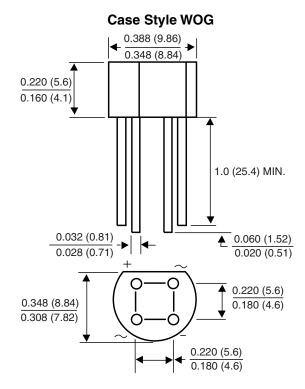
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## **PACKAGE OUTLINE DIMENSIONS** in inches (millimeters)





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