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

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Vishay General Semiconductor

Glass Passivated Single-Phase Bridge Rectifier



LINKS TO ADDITIONAL RESOURCES



PRIMARY CHARACTERISTICS							
I _{F(AV)}	1.5 A						
V _{RRM}	50 V, 100 V, 200 V, 400 V, 600 V, 800 V, 1000 V						
I _{FSM}	50 A						
I _R	5 μΑ						
V_F at $I_F = 1.0$ A	1.0 V						
T _J max.	150 °C						
Package	WOG						
Circuit configuration	Quad						

FEATURES

- UL recognition, file number E54214
- · Ideal for printed circuit boards
- Typical I_R 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 JESD 22-B102

Polarity: as marked on body

MAXIMUM RATINGS ($T_A = 25$ °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 _{RMS}	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 $T_A = 25 \text{ °C}$	I _{F(AV)}	1.5				А			
Peak forward surge current single sine-wave superimposed on rated load	I _{FSM}	50				А			
Rating for fusing (t < 8.3 ms)	l ² t	10				A ² s			
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150				°C			

ELECTRICAL CHARACTERISTICS ($T_A = 25 \text{ °C}$ unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	VALUES	UNIT				
Maximum instantaneous forward voltage per diode	I _F = 1.0 A	V _F	1.0	V				
Maximum DC reverse current at rated DC blocking voltage	T _A = 25 °C	1	5.0					
per diode	T _A = 125 °C	IR	500	μA				
Typical junction capacitance per diode	4.0 V, 1 MHz	CJ	14	pF				

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THERMAL CHARACTERISTICS ($T_A = 25 \text{ °C}$ unless otherwise noted)									
PARAMETER	SYMBOL	1BOL W005G W01G W02G W04G W06G W08G W10G U						UNIT	
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$	36							°C/W
Typical thermal resistance (7	$R_{\theta JL}$	11							0/11

Note

(1) 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	DELIVERY MODE				
W06G-E4/51	1.12	51	100	Plastic bag			

RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

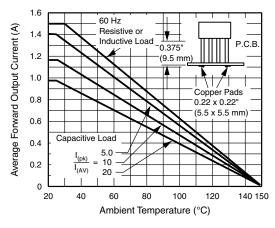


Fig. 1 - Derating Curve Output Rectified Current

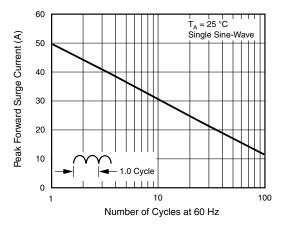
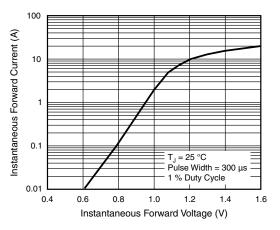
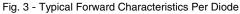


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode





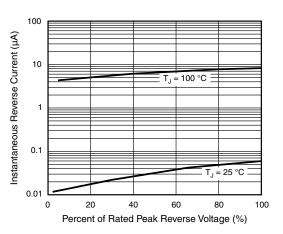


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

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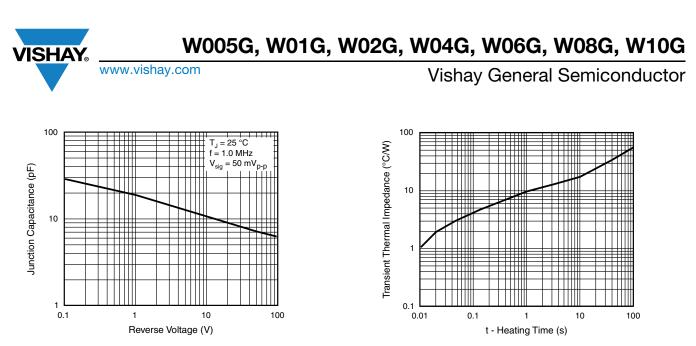
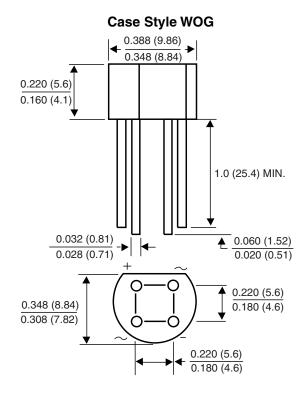


Fig. 5 - Typical Junction Capacitance Per Diode

Fig. 6 - Typical Transient Thermal Impedance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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