

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 _{F(AV)}	2.0 A						
V _{RRM}	50 V, 100 V, 200 V, 400 V, 600 V, 800 V, 1000 V						
I _{FSM}	60 A						
I _R	5 μΑ						
V_F at $I_F = 2.0 A$	1.1 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 0.5 μA
- · High case dielectric strength
- · High surge current capability
- Solder dip 260 °C, 40 s
- 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 _A = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	2W005G	2W01G	2W02G	2W04G	2W06G	2W08G	2W10G	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 (fig. 1)	I _{F(AV)}	2.0						Α	
Peak forward surge current single half sine-wave superimposed on rated load	I _{FSM}	60					Α		
Rating for fusing (t < 8.3 ms)	l ² t 15					A ² s			
Operating junction and storage temperature range	T _J , T _{STG} -55 to +150						°C		

ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)										
PARAMETER	TEST CONDITIONS	SYMBOL	2W005G	2W01G	2W02G	2W04G	2W06G	2W08G	2W10G	UNIT
Maximum instantaneous forward voltage drop per diode	I _F = 2.0 A	V _F	1.1						٧	
Maximum DC reverse	T _A = 25 °C		5.0							
current at rated DC blocking voltage per diode	T _A = 125 °C	I _R	500						μA	
Typical junction capacitance per diode	4.0 V, 1 MHz	CJ		40)			20		pF

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THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)								
PARAMETER	SYMBOL 2W005G 2W01G 2W02G 2W04G 2W06G 2W08G 2W10G UNIT							
Typical thermal resistance (1)	$R_{\theta JA}$	40						°C/W
Typical thermal resistance (7)	$R_{\theta JL}$ 15					C/VV		

Note

⁽¹⁾ 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	PREFERRED P/N UNIT WEIGHT (g) PREFERRED PACKAGE CODE BASE QUANTITY DELIVERY MODE						
2W06G-E4/51	1.12	51	100	Plastic bag			

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

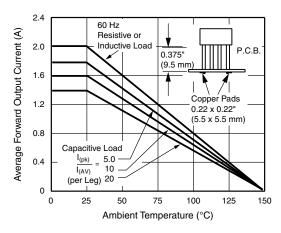


Fig. 1 - Derating Curve Output Rectified Current

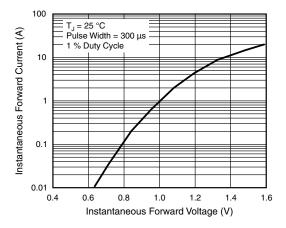


Fig. 3 - Typical Forward Characteristics Per Diode

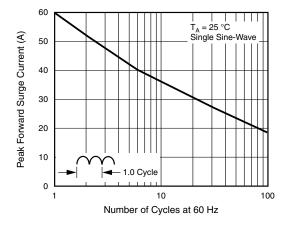


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

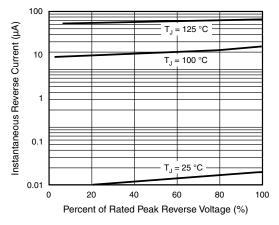


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

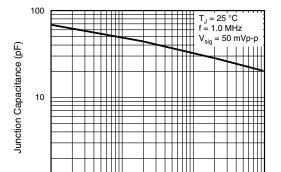
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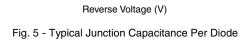


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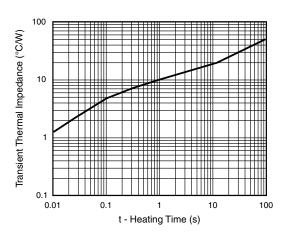
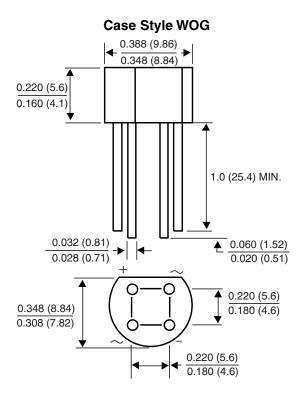


Fig. 6 - Typical Transient Thermal Impedance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

100



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