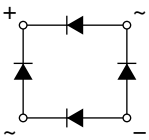
W005G, W01G, W02G, W04G, W06G, W08G, W10G

Glass Passivated Single-Phase Bridge Rectifier



Case Style WOG

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

RoHS COMPLIANT

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

LINKS TO ADDITIONAL RESOURCES

3D Models

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 µA
V_F at I_F = 1.0 A	1.0 V
T_J max.	150 °C
Package	WOG
Circuit configuration	Quad

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 °C	$I_{F(AV)}$	1.5							A
Peak forward surge current single sine-wave superimposed on rated load	I_{FSM}	50							A
Rating for fusing (t < 8.3 ms)	I^2t	10							A^2s
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	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 per diode	T_A = 25 °C	I_R	5.0	µA
	T_A = 125 °C		500	
Typical junction capacitance per diode	4.0 V, 1 MHz	C_J	14	pF

THERMAL CHARACTERISTICS (T_A = 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
	$R_{\theta JL}$	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	BASE QUANTITY	DELIVERY MODE
W06G-E4/51	1.12	51	100	Plastic bag

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

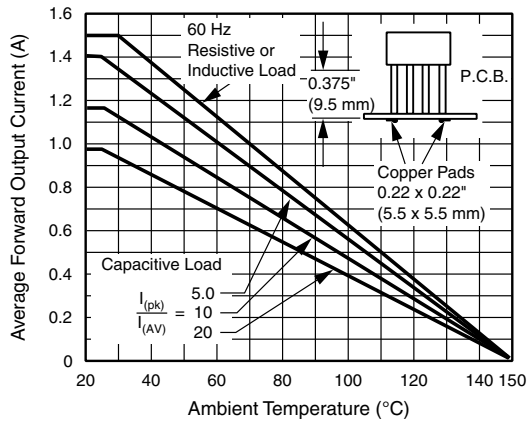


Fig. 1 - Derating Curve Output Rectified Current

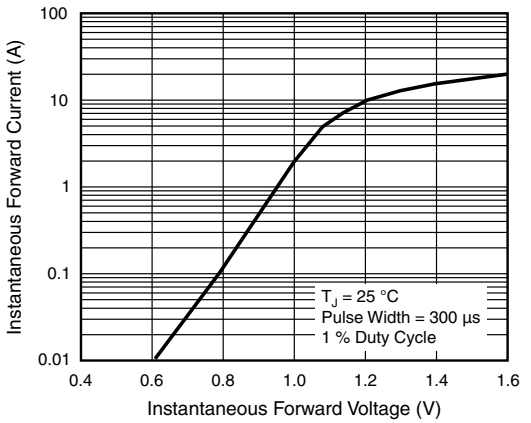


Fig. 3 - Typical Forward Characteristics Per Diode

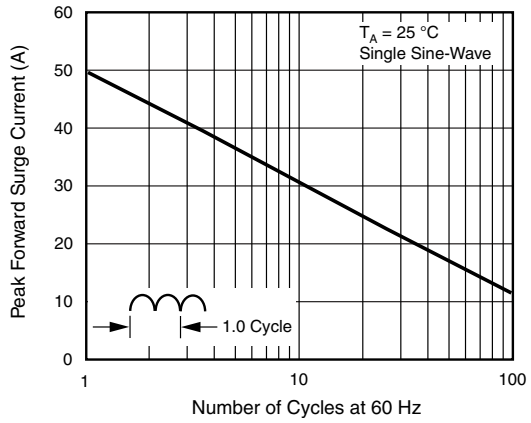


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

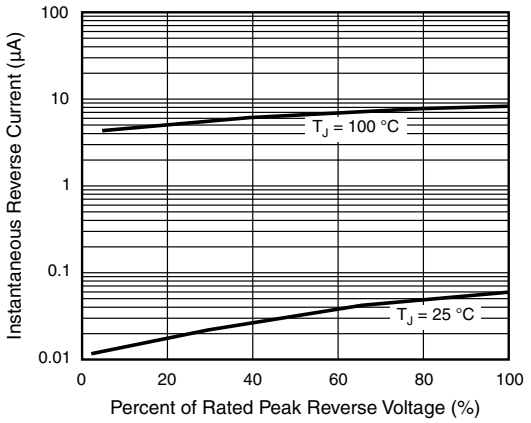


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

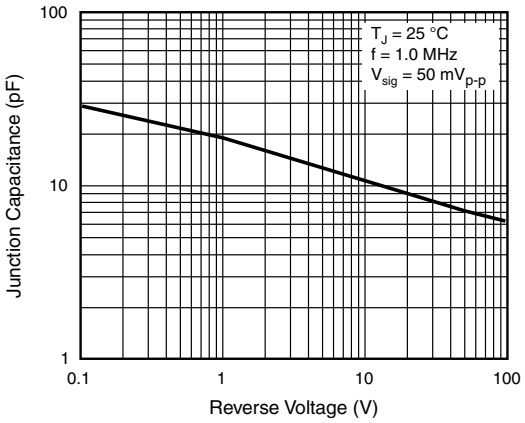


Fig. 5 - Typical Junction Capacitance Per Diode

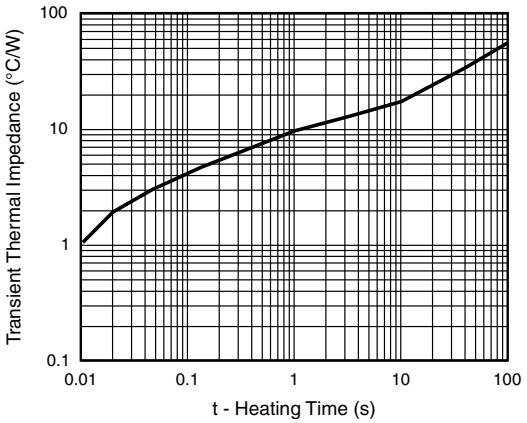
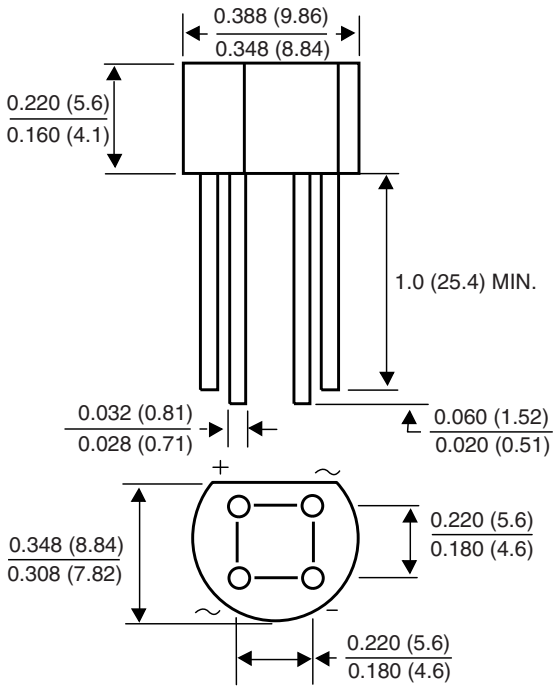


Fig. 6 - Typical Transient Thermal Impedance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

Case Style WOG



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