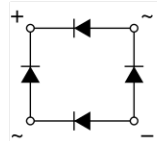




## Glass Passivated Single-Phase Bridge Rectifier



Case Style WOG

### FEATURES

- UL recognition, file number E54214
- Ideal for printed circuit boards
- Typical  $I_R$  less than 0.1  $\mu A$
- 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](http://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

PRIMARY CHARACTERISTICS	
Package	WOG
$I_{F(AV)}$	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 $\mu A$
$V_F$ at $I_F = 1.0 A$	1.0 V
$T_J$ max.	150 °C
Diode variations	Quad

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

ELECTRICAL CHARACTERISTICS ( $T_A = 25\text{ }^\circ\text{C}$ 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 per diode	$T_A = 25\text{ }^\circ\text{C}$	$I_R$	5.0	$\mu A$
	$T_A = 125\text{ }^\circ\text{C}$		500	
Typical junction capacitance per diode	4.0 V, 1 MHz	$C_J$	14	pF



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 <sub>θJA</sub>	36							°C/W
	R <sub>θJL</sub>	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<sub>A</sub> = 25 °C unless otherwise noted)**

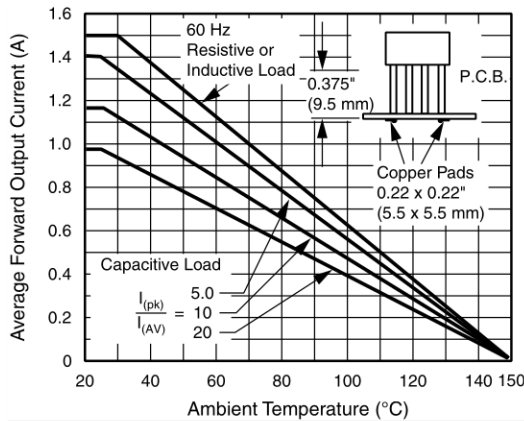


Fig. 1 - Derating Curve Output Rectified Current

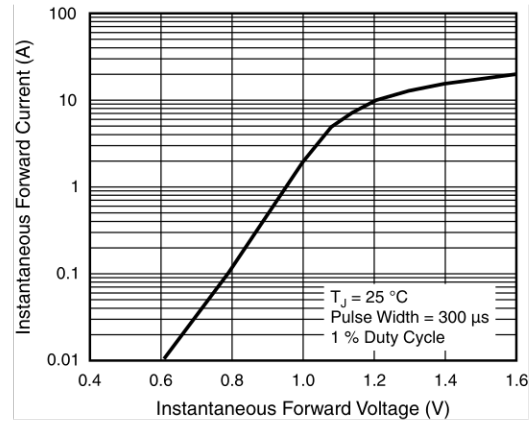


Fig. 3 - Typical Forward Characteristics Per Diode

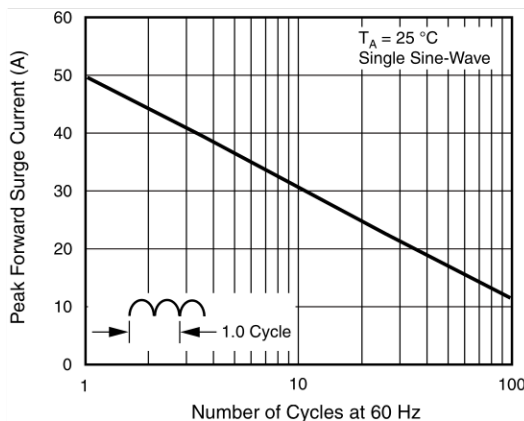


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

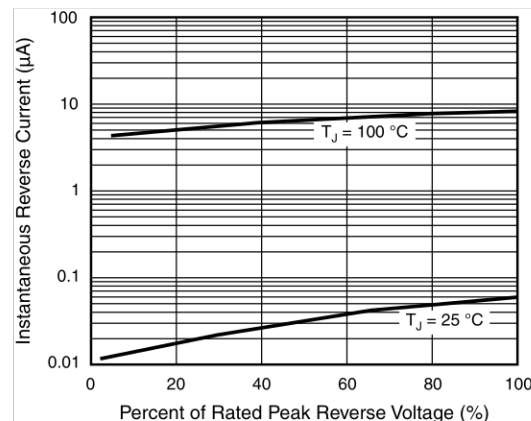


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

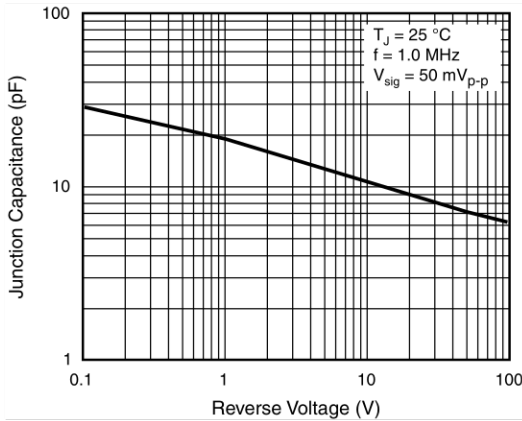


Fig. 5 - Typical Junction Capacitance Per Diode

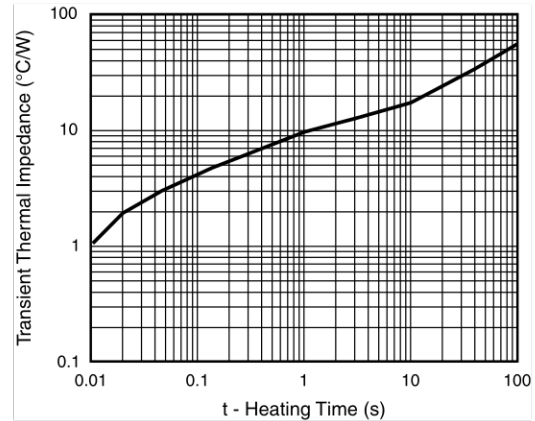
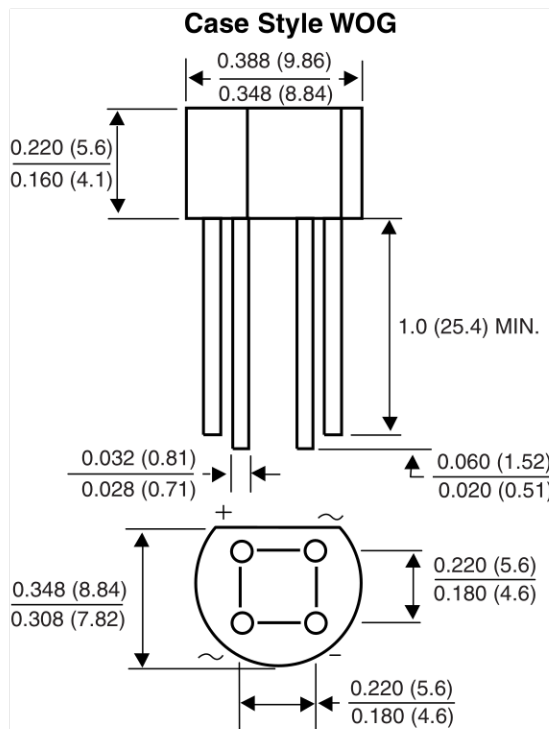


Fig. 6 - Typical Transient Thermal Impedance

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





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