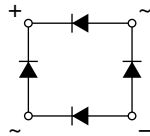


## Glass Passivated Single-Phase Bridge Rectifier



Case Style WOG

| 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  |

### 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)


**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 JESD22-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 $T_A = 25$ °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 <sup>2</sup> 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 | 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    | $\mu$ A |
|  | $T_A = 125$ °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)**

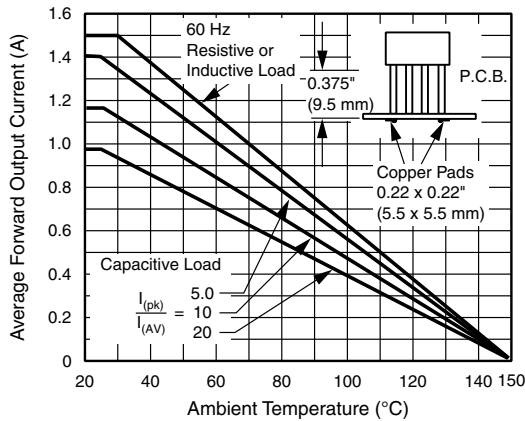


Fig. 1 - Derating Curve Output Rectified Current

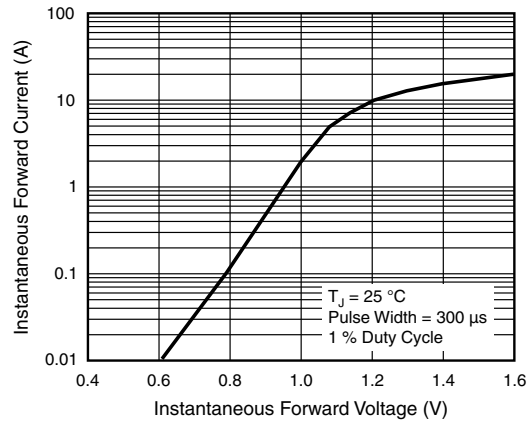


Fig. 3 - Typical Forward Characteristics Per Diode

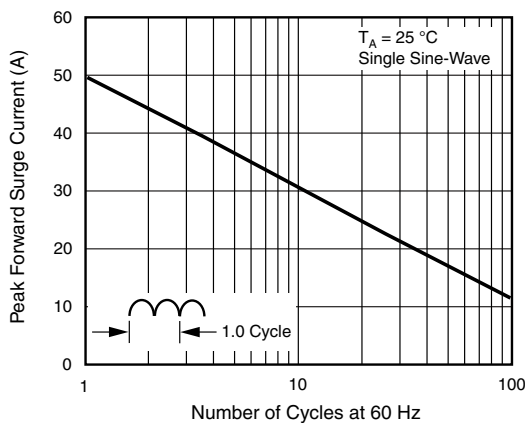


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

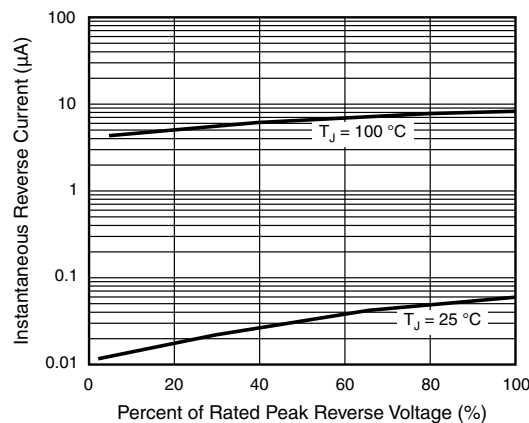


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

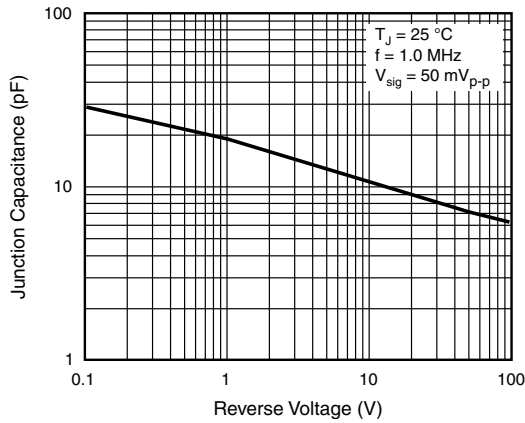


Fig. 5 - Typical Junction Capacitance Per Diode

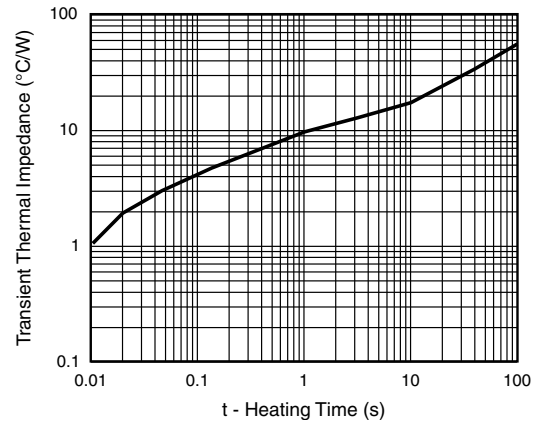
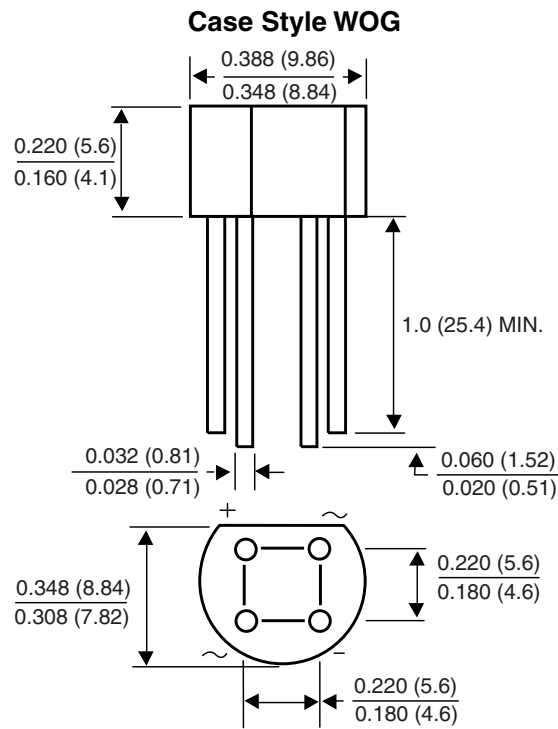


Fig. 6 - Typical Transient Thermal Impedance

### PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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