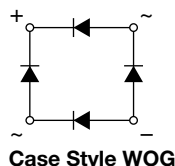




## Glass Passivated Single-Phase Bridge Rectifier



## FEATURES

- UL recognition, file number E54214
- Ideal for printed circuit boards
- Typical  $I_R$  less than  $0.5 \mu A$
- High case dielectric strength
- High surge current capability
- Solder dip  $260^\circ C$ , 40 s
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



## 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                                            |
| $I_R$                   | $5 \mu A$                                       |
| $V_F$ at $I_F = 2.0 A$  | 1.1 V                                           |
| $T_J$ max.              | $150^\circ C$                                   |
| Package                 | WOG                                             |
| Circuit configuration   | Quad                                            |

## 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 ( $T_A = 25^\circ C$ 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             |       |       |       |       |       |       | A                |
| Peak forward surge current single half sine-wave superimposed on rated load          | $I_{FSM}$      | 60              |       |       |       |       |       |       | A                |
| Rating for fusing ( $t < 8.3$ ms)                                                    | $I^2t$         | 15              |       |       |       |       |       |       | A <sup>2</sup> s |
| Operating junction and storage temperature range                                     | $T_J, T_{STG}$ | $-55$ to $+150$ |       |       |       |       |       |       | $^\circ C$       |

| ELECTRICAL CHARACTERISTICS (T <sub>A</sub> = 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 <sub>F</sub> = 2.0 A  | V <sub>F</sub> | 1.1    |       |       |       |       |       |       | V    |
| Maximum DC reverse current at rated DC blocking voltage per diode          | T <sub>A</sub> = 25 °C  | I <sub>R</sub> | 5.0    |       |       |       |       |       |       | μA   |
|                                                                            | T <sub>A</sub> = 125 °C |                | 500    |       |       |       |       |       |       |      |
| Typical junction capacitance per diode                                     | 4.0 V, 1 MHz            | C <sub>J</sub> | 40     |       |       |       | 20    |       |       | pF   |

**THERMAL CHARACTERISTICS** ( $T_A = 25\text{ }^{\circ}\text{C}$  unless otherwise noted)

| PARAMETER                                 | SYMBOL           | 2W005G | 2W01G | 2W02G | 2W04G | 2W06G | 2W08G | 2W10G | UNIT |
|-------------------------------------------|------------------|--------|-------|-------|-------|-------|-------|-------|------|
| Typical thermal resistance <sup>(1)</sup> | R <sub>θJA</sub> | 40     |       |       |       |       |       |       | °C/W |
|                                           | R <sub>θJL</sub> | 15     |       |       |       |       |       |       |      |

**Note**

<sup>(1)</sup> 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 | UNIT WEIGHT (g) | PREFERRED PACKAGE CODE | BASE QUANTITY | DELIVERY MODE |
|---------------|-----------------|------------------------|---------------|---------------|
| 2W06G-E4/51   | 1.12            | 51                     | 100           | Plastic bag   |

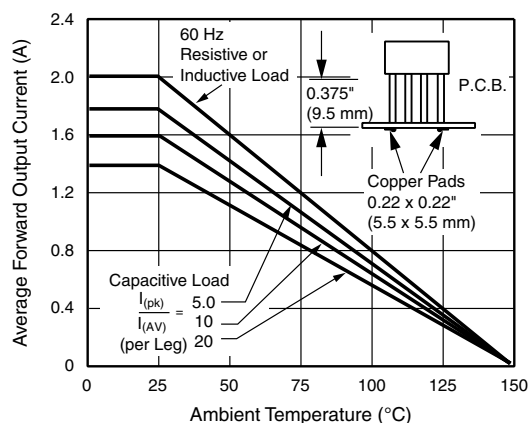
**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25\text{ }^{\circ}\text{C}$  unless otherwise noted)

Fig. 1 - Derating Curve Output Rectified Current

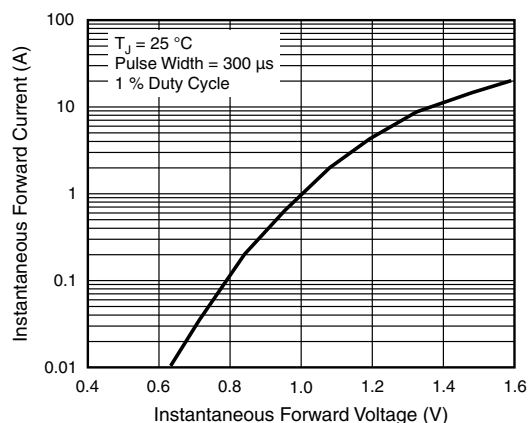


Fig. 3 - Typical Forward Characteristics Per Diode

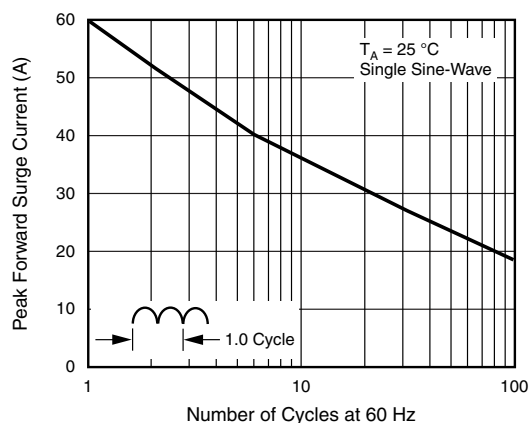


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

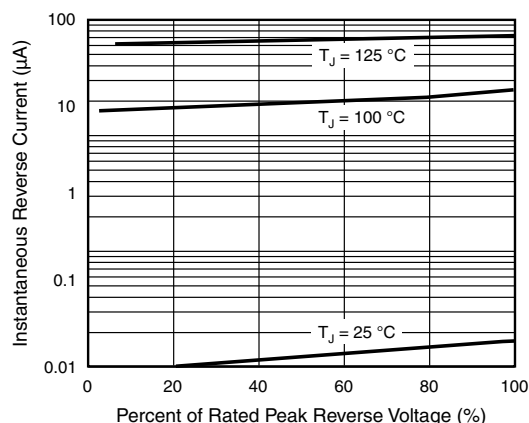


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

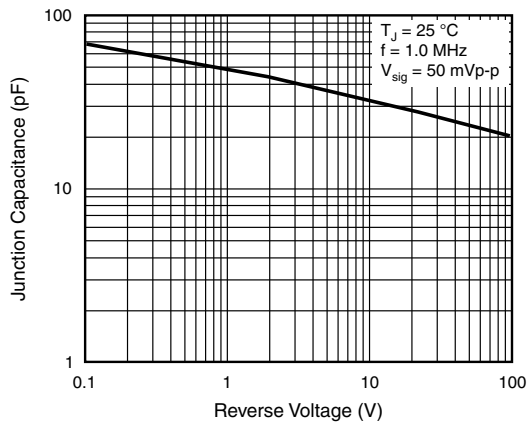


Fig. 5 - Typical Junction Capacitance Per Diode

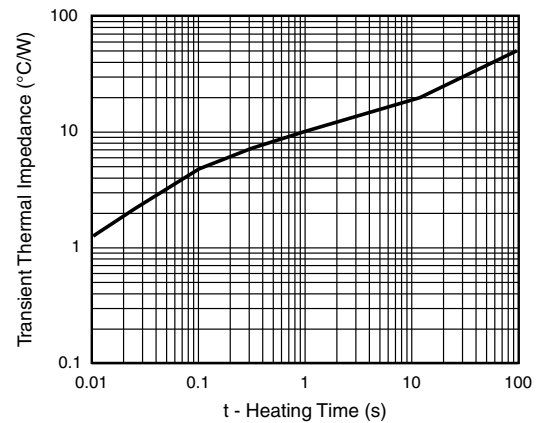
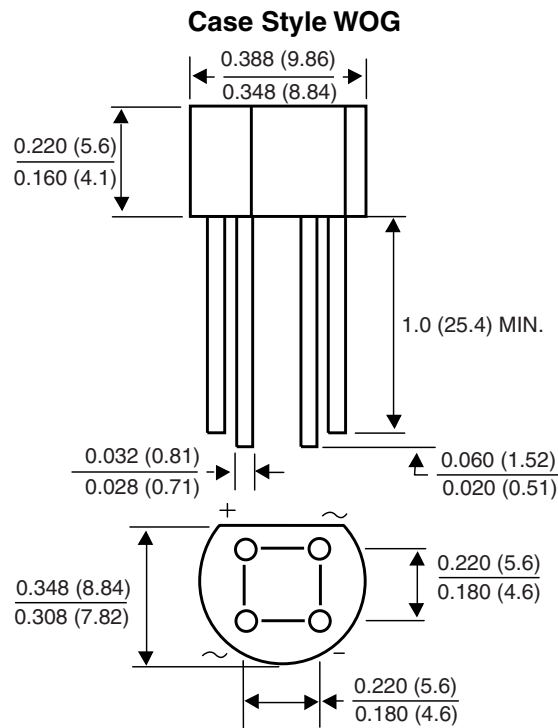


Fig. 6 - Typical Transient Thermal Impedance

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





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