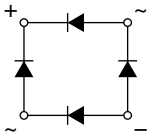
# 2W005G, 2W01G, 2W02G, 2W04G, 2W06G, 2W08G, 2W10G

## Glass Passivated Single-Phase Bridge Rectifier



**Case Style WOG**

| PRIMARY CHARACTERISTICS | |
|---|---|
| Package | WOG |
| $I_{F(AV)}$ | 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 µA |
| $V_F$ at $I_F$ = 2.0 A | 1.1 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 0.5 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

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 | 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 | | | | | | | $A^2s$ |
| 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 | 2W005G | 2W01G | 2W02G | 2W04G | 2W06G | 2W08G | 2W10G | UNIT |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum instantaneous forward voltage drop per diode | $I_F$ = 2.0 A | $V_F$ | 1.1 | | | | | | | 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 | $C_J$ | 40 | | | | 20 | | | pF |

| 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 |
| | $R_{\theta JL}$ | 15 | | | | | | | |

**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 | 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)

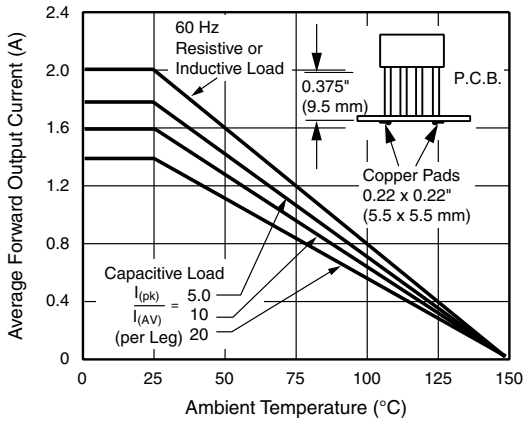



Fig. 1 - Derating Curve Output Rectified Current

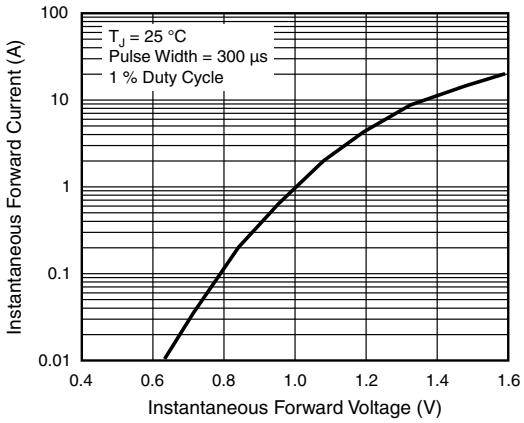



Fig. 3 - Typical Forward Characteristics Per Diode

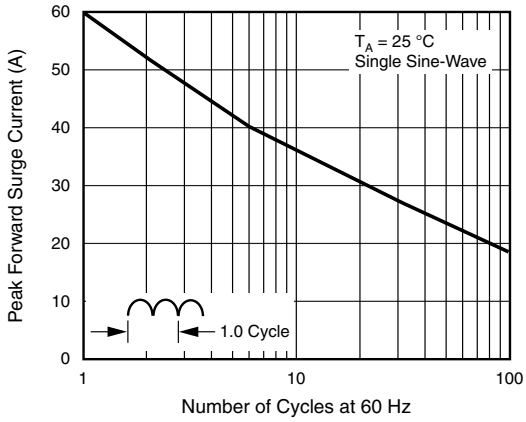



Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

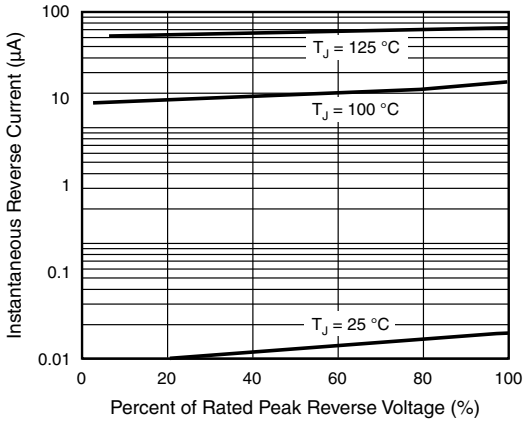



Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

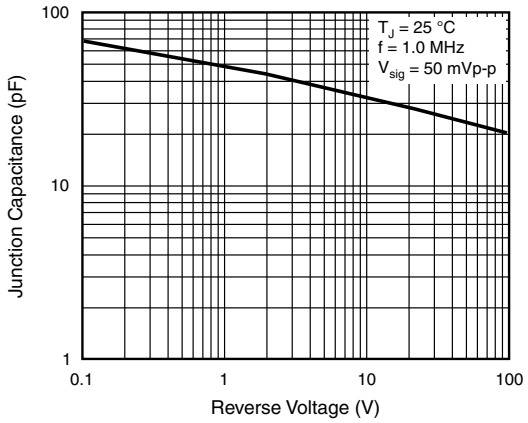



Fig. 5 - Typical Junction Capacitance Per Diode

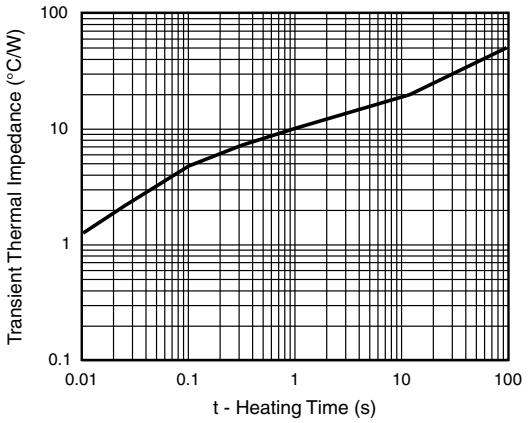
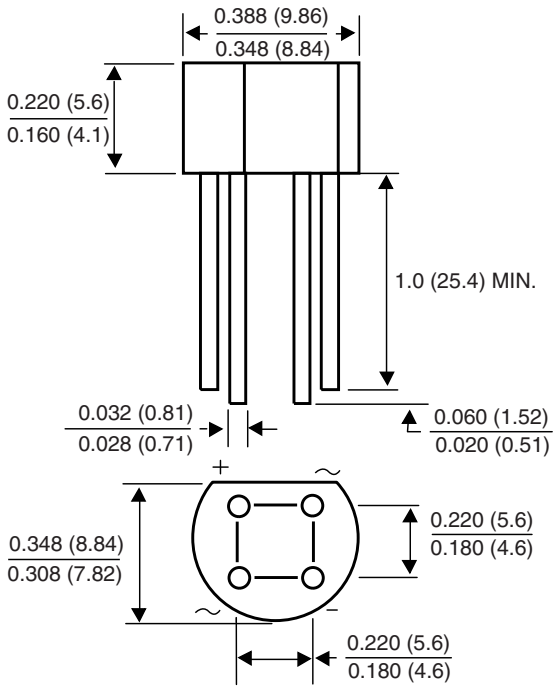



Fig. 6 - Typical Transient Thermal Impedance

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

**Case Style WOG**



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