



W005G thru W10G

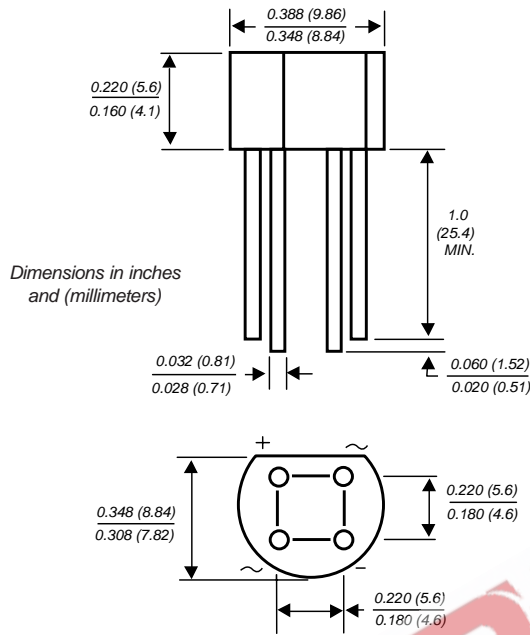
Vishay Semiconductors
formerly General Semiconductor



Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 50 and 1000V
Forward Current 1.5A

Case Style WOG



Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under the Recognized Component Index, file number E54214
- Glass passivated chip junction
- High case dielectric strength
- Typical I_R less than $0.1\mu A$
- High overload surge current
- Ideal for printed circuit boards
- High temperature soldering guaranteed: $260^\circ C/10$ seconds, 0.375 (9.5mm) lead length, 5lbs. (2.3kg) tension

Mechanical Data

- Case:** Molded plastic body over passivated junctions
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Mounting Position: Any
Weight: 0.04 oz., 1.1 g
Packaging codes/options: 1/100 EA. per Bulk Bag

Maximum Ratings & Thermal Characteristics Ratings at $25^\circ C$ ambient temperature unless otherwise specified.

| Parameter | Symbols | W005G | W01G | W02G | W04G | W06G | W08G | W10G | Units |
|--|------------------------------------|-------------|------|------|------|------|------|------|--------------|
| 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 " (9.5mm) lead length at $T_A=25^\circ C$ | $I_{F(AV)}$ | 1.5 | | | | | | | A |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 50 | | | | | | | A |
| Rating for fusing ($t < 8.3ms$) | I^2t | 10 | | | | | | | A^2sec |
| Typical thermal resistance per leg ⁽¹⁾ | $R_{\theta JA}$ $R_{\theta JL}$ | 36 11 | | | | | | | $^\circ C/W$ |
| Operating junction temperature range | T_J | -55 to +150 | | | | | | | $^\circ C$ |
| Storage temperature range | T_{STG} | -55 to +150 | | | | | | | $^\circ C$ |

Electrical Characteristics Ratings at $25^\circ C$ ambient temperature unless otherwise specified.

| Parameter | Symbols | W005G | W01G | W02G | W04G | W06G | W08G | W10G | Units |
|---|---------|------------|------|------|------|------|------|------|---------|
| Maximum instantaneous forward voltage drop per leg at 1.0A | V_F | 1.0 | | | | | | | V |
| Maximum DC reverse current at rated $T_A=25^\circ C$ DC blocking voltage per leg $T_A=125^\circ C$ | I_R | 5.0 500 | | | | | | | μA |
| Typical junction capacitance per leg at 4.0V, 1MHz | C_J | 14 | | | | | | | pF |

Notes: (1) Thermal resistance from junction to ambient and from junction to lead at 0.375 " (9.5mm) lead length P.C.B. mounting

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Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Fig. 1 — Derating Curve Output Rectified Current

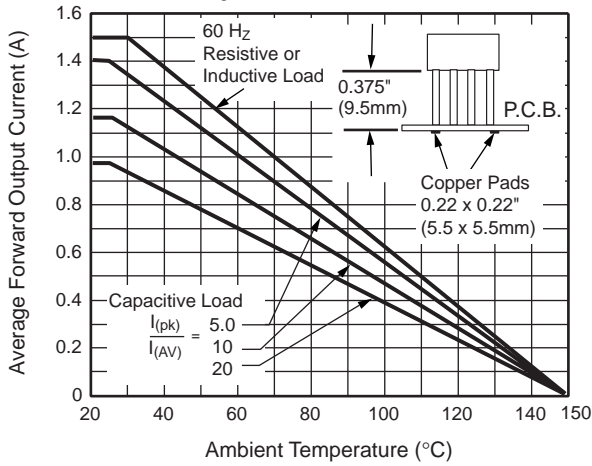


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current Per Leg

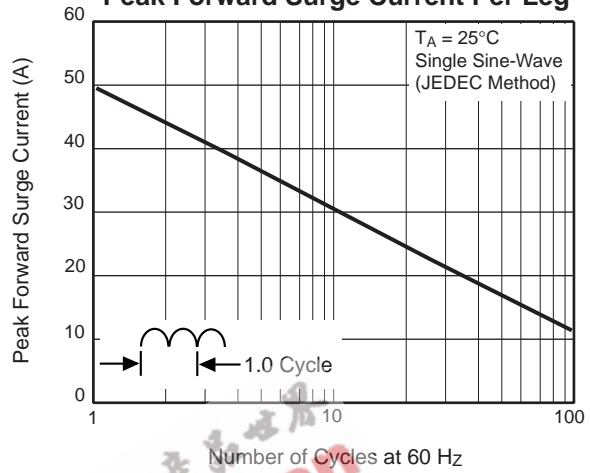


Fig. 3 — Typical Forward Characteristics Per Leg

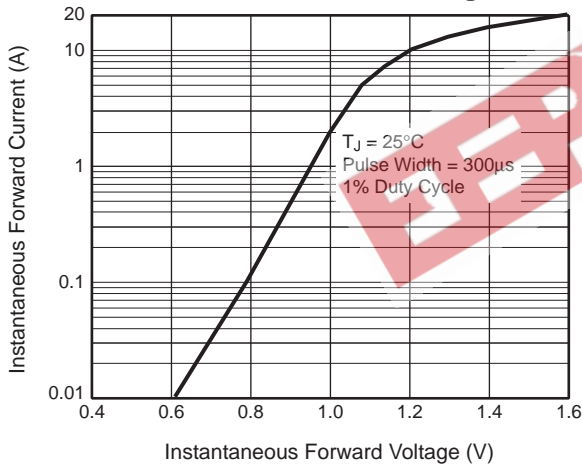


Fig. 4 — Typical Reverse Leakage Characteristics Per Leg

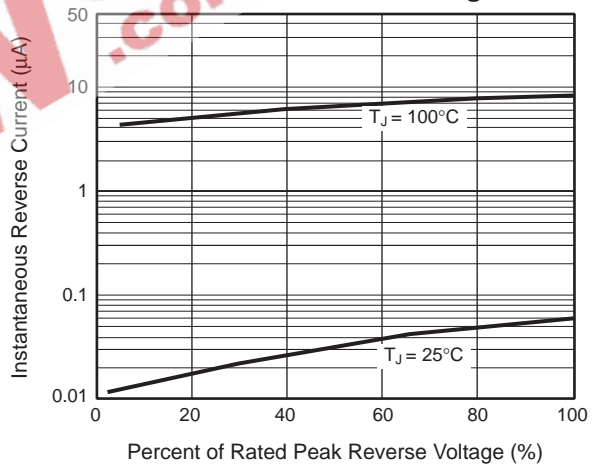


Fig. 5 — Typical Junction Capacitance Per Leg

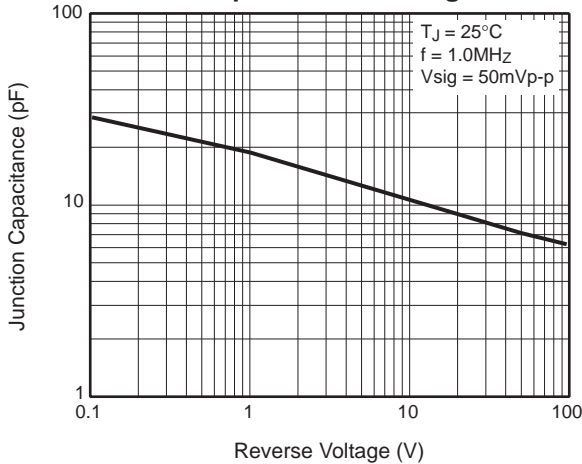


Fig. 6 — Typical Transient Thermal Impedance

