

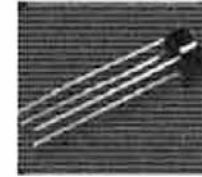
2W005M thru 2W10M / 2W005G thru 2W10G



Glass Passivated Single-Phase Bridge Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 2.0 Amperes

Features

- ◆ Ideal for printed circuit boards
- ◆ Typical I_R less than 0.5 μ A
- ◆ High case dielectric strength
- ◆ High surge current capability
- ◆ Solder Dip 260 °C, 40 seconds



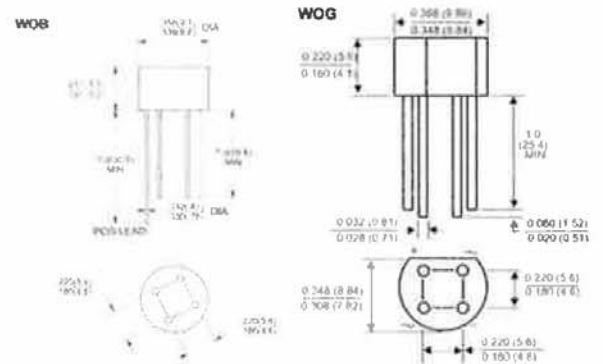
Mechanical Data

- ◆ Case: WOB / WOG
Epoxy meets UL-94V-0 Flammability rating
- ◆ Terminals: Silver plated (E4 Suffix) leads, solderable per J-STD-002B and JESD22-B102D
- ◆ Polarity: As marked on body



Typical Applications

General purpose use in ac-to-dc bridge full wave rectification for Power Supply, Adapter, Charger, lighting Ballaster on Consumers and Home Appliances applications



Package outline dimensions in inches (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

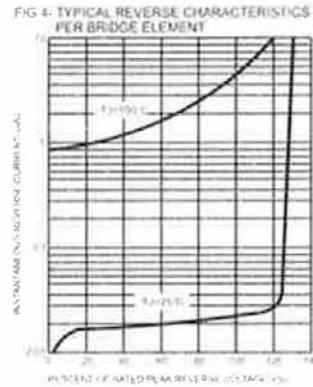
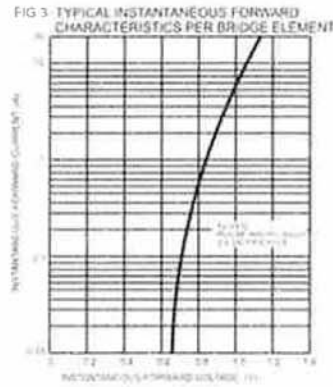
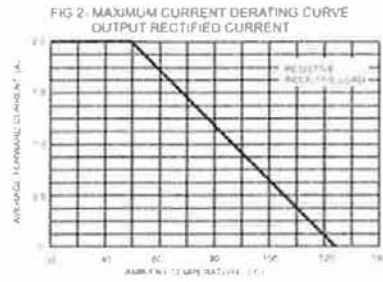
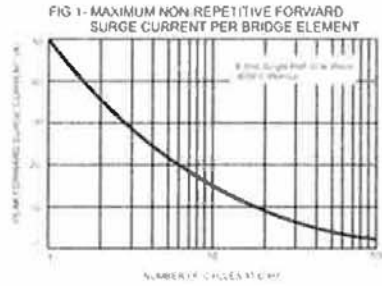
| Parameter | Symbols | 2W005M | 2W01M | 2W02M | 2W04M | 2W06M | 2W08M | 2W10M | Units | |
|---|------------------------------------|--|-------|-------|-------|-------|-------|-------|--------------------|--------------------|
| | | 2W005G | 2W01G | 2W02G | 2W04G | 2W06G | 2W08G | 2W10G | | |
| Maximum recurrent peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts | |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts | |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts | |
| Maximum average forward rectified current 0.375" (9.5mm) lead length (See Fig 2 and Fig 1) | $I_{F(AV)}$ | 2.0 | | | | | | | Amps | |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 2W005M: 50.0, 2W005G: 60.0 | | | | | | | Amps | |
| Rating for fusing (t < 8.3ms) | Pt | 2W005G: 15.0 | | | | | | | A ² sec | |
| Max. instantaneous forward voltage drop per element at 1.0A | V_F | 1.1 | | | | | | | Volts | |
| Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage per element | I_R | 10.0 500 (2W005M @ $T_A=100^\circ\text{C}$, 2W005G @ $T_A=125^\circ\text{C}$) | | | | | | | μ A | |
| Typical junction capacitance per element (Note 1) | C_J | 40 | | | | 20 | | | pF | |
| Typical thermal resistance per leg (Note 2) | $R_{\theta JA}$ $R_{\theta JL}$ | 40 15 | | | | | | | | $^\circ\text{C/W}$ |
| Operating temperature range | T_J | 2W005M: -55 to +125 2W005G: -55 to +150 | | | | | | | $^\circ\text{C}$ | |
| Storage temperature range | T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ | |

- Notes:**
1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts
 2. Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5 mm) lead length P.C.B. mounting



RATINGS AND CHARACTERISTIC CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted) - 2W005M thru 2W10M



($T_A = 25^\circ\text{C}$ unless otherwise noted) - 2W005G thru 2W10G

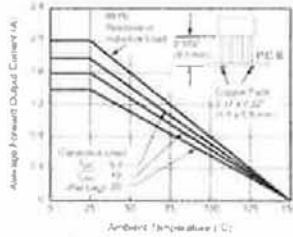


Figure 1 Derating Curve Output Rectified Current

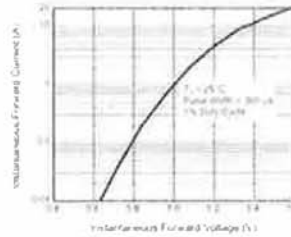


Figure 3 Typical Forward Characteristics Per Leg

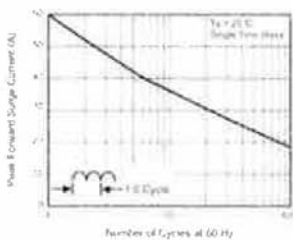


Figure 2 Maximum Non-Repetitive Peak Forward Surge Current Per Leg

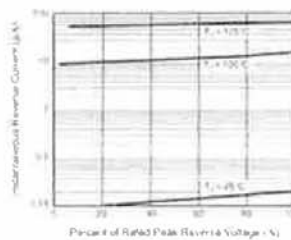


Figure 4 Typical Reverse Leakage Characteristics Per Leg

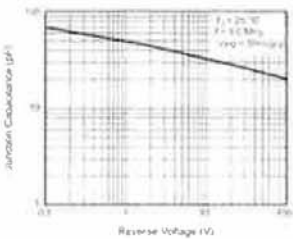


Figure 5 Typical Junction Capacitance Per Leg

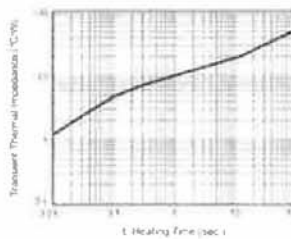


Figure 6 Typical Transient Thermal Impedance