



# 2W005M thru 2W10M / 2W005G thru 2W10G

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

## Features

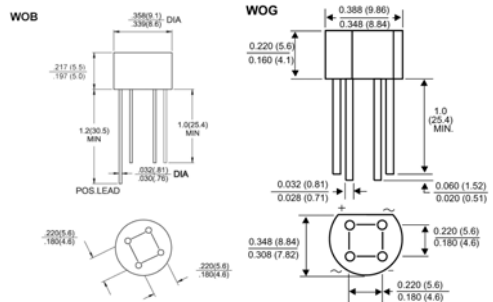
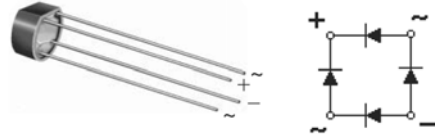
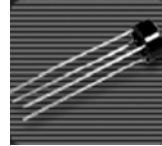
- ◆ Ideal for printed circuit boards
- ◆ Typical  $I_r$  less than 0.5  $\mu$ A
- ◆ High case dielectric strength
- ◆ High surge current capability
- ◆ Solder Dip 260 °C, 40 seconds

## 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



## Maximum Ratings and Electrical Characteristics

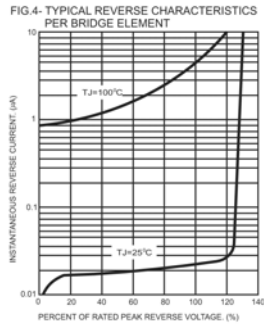
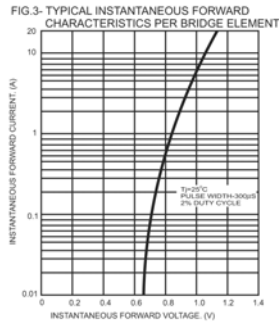
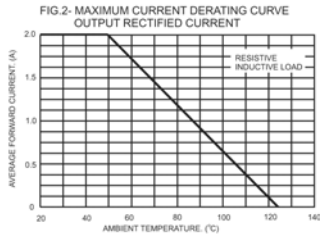
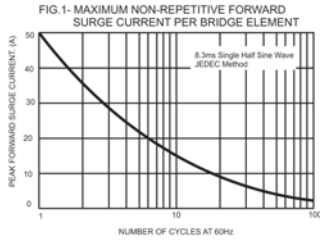
Rating at 25°C ambient temperature unless otherwise specified.

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)	$I^2t$	2W005G: 15.0							A <sup>2</sup> 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 @ $T_A=125^\circ\text{C}$ )							$\mu$ 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

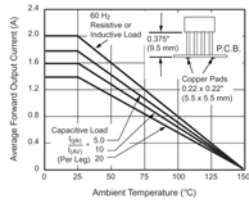


Figure 1. Derating Curve Output Rectified Current

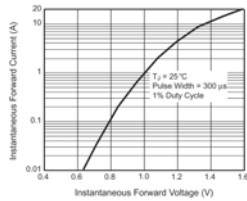


Figure 3. Typical Forward Characteristics Per Leg

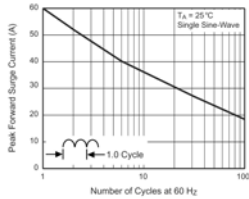


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

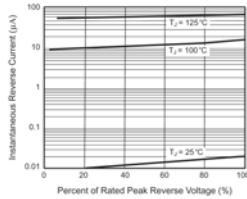


Figure 4. Typical Reverse Leakage Characteristics Per Leg

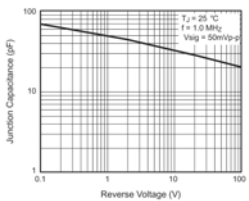


Figure 5. Typical Junction Capacitance Per Leg

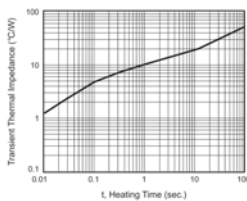


Figure 6. Typical Transient Thermal Impedance