

# F2W005G - F2W10G

**PRV : 50 - 1000 Volts**  
**Io : 2.0 Amperes**

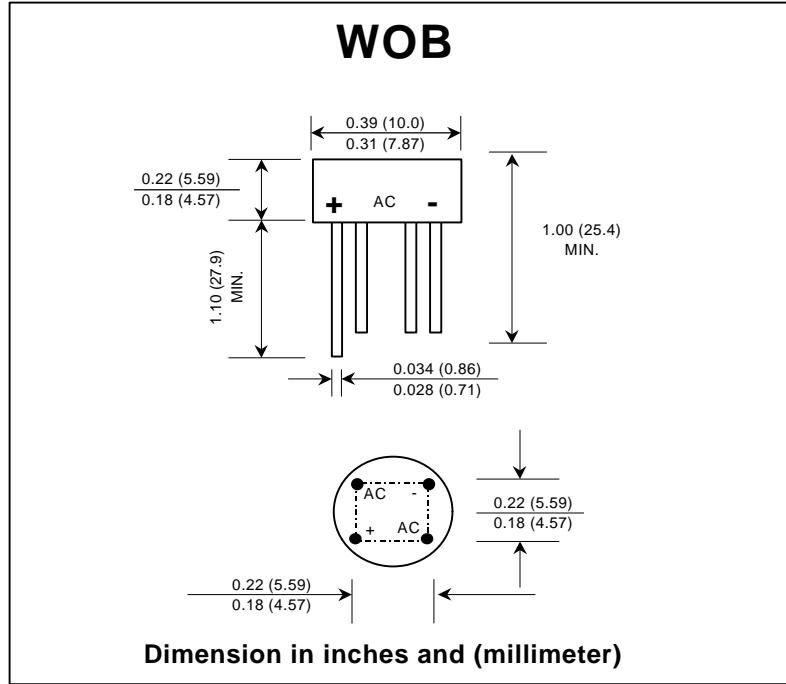
## FEATURES :

- \* Glass passivated chip
- \* High case dielectric strength
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency
- \* Ideal for printed circuit board
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case : Reliable low cost construction utilizing molded plastic technique
- \* Epoxy : UL94V-O rate flame retardant
- \* Terminals : Plated leads solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Any
- \* Weight : 1.29 grams

# FAST RECOVERY GLASS PASSIVATED BRIDGE RECTIFIERS



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

RATING	SYMBOL	F2W 005G	F2W 01G	F2W 02G	F2W 04G	F2W 06G	F2W 08G	F2W 10G	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Current 0.375" (9.5 mm) lead length T <sub>c</sub> = 50°C	I <sub>F(AV)</sub>	2.0							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30							A
Rating for fusing ( t < 8.3 ms. )	I <sup>2</sup> t	10							A <sup>2</sup> S
Maximum Forward Voltage per Diode at I <sub>F</sub> = 1.0 A	V <sub>F</sub>	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	10							μA
	I <sub>R(H)</sub>	1.0							mA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	150			250	500		ns	
Typical Junction Capacitance per Diode (Note 2)	C <sub>J</sub>	24							pf
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	36							°C/W
Operating Junction Temperature Range	T <sub>J</sub>	- 50 to + 150							°C
Storage Temperature Range	T <sub>STG</sub>	- 50 to + 150							°C

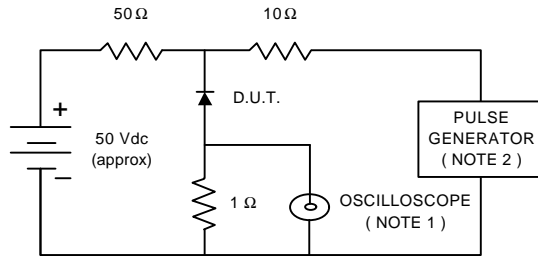
Notes : 1) Measured with I<sub>F</sub> = 0.5 Amp., I<sub>R</sub> = 1 Amp., I<sub>rr</sub> = 0.25 Amp.

2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

3) Thermal resistance from Junction to Ambient at 0.375" (9.5 mm) lead length P.C. Board with, 0.22" x 0.22" (5.5 x 5.5 mm) copper Pads.

## RATING AND CHARACTERISTIC CURVES ( F2W005G - F2W10G )

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.  
2. Rise time = 10 ns max., Source Impedance = 50 ohms.  
3. All Resistors = Non-inductive Types.

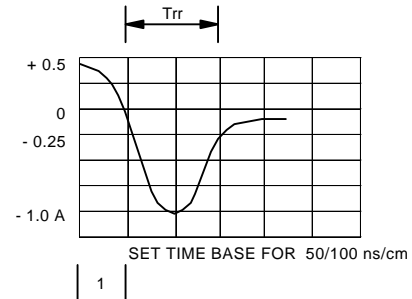


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

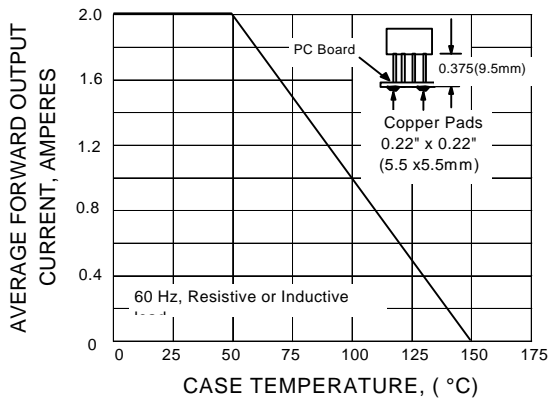


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

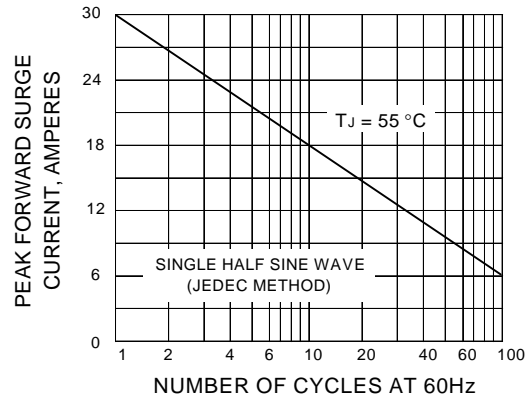


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

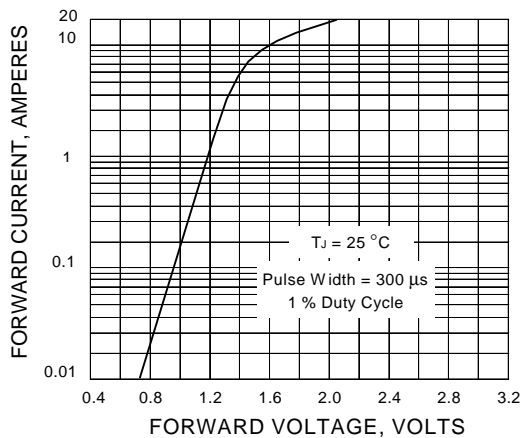


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

