

F2W005G - F2W10G

FAST RECOVERY GLASS PASSIVATED BRIDGE RECTIFIERS

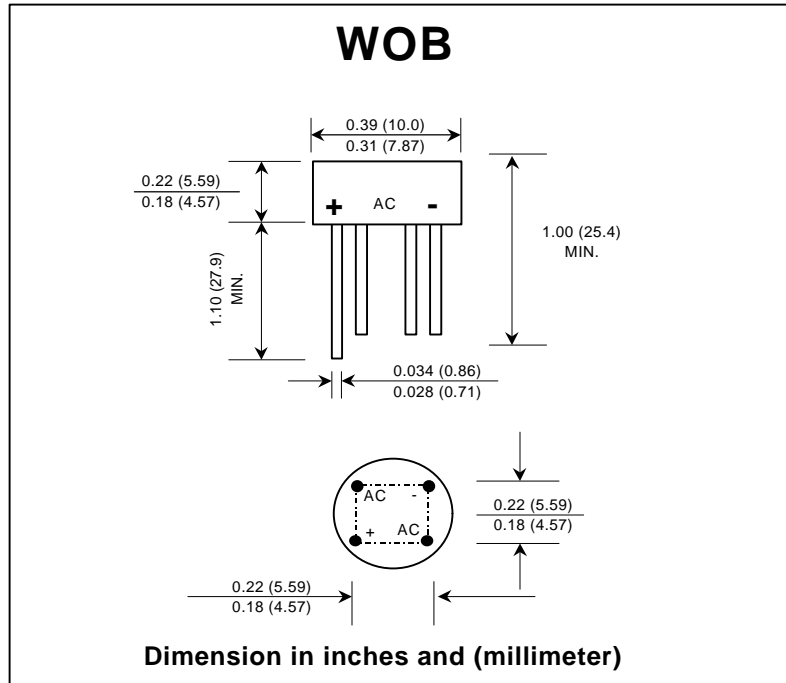
PRV : 50 - 1000 Volts
Io : 2.0 Amperes

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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

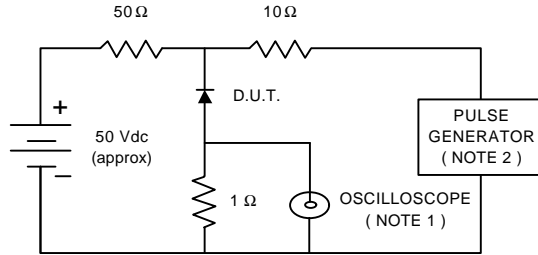
Rating at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

RATING	SYMBOL	F2W 005G	F2W 01G	F2W 02G	F2W 04G	F2W 06G	F2W 08G	F2W 10G	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{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 Current 0.375" (9.5 mm) lead length T _c = 50°C	I _{F(AV)}	2.0							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I _{FSM}	30							A
Rating for fusing (t < 8.3 ms.)	I ² t	10							A ² S
Maximum Forward Voltage per Diode at I _F = 1.0 A	V _F	1.3							V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 100 °C	I _R	10							μA
	I _{R(H)}	1.0							mA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150			250	500		ns	
Typical Junction Capacitance per Diode (Note 2)	C _J	24							pf
Typical Thermal Resistance (Note 3)	R _{θJA}	36							°C/W
Operating Junction Temperature Range	T _J	- 50 to + 150							°C
Storage Temperature Range	T _{STG}	- 50 to + 150							°C

- Notes :**
- 1) Measured with I_F = 0.5 Amp., I_R = 1 Amp., I_{rr} = 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.

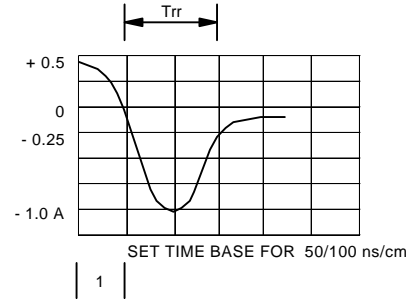


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

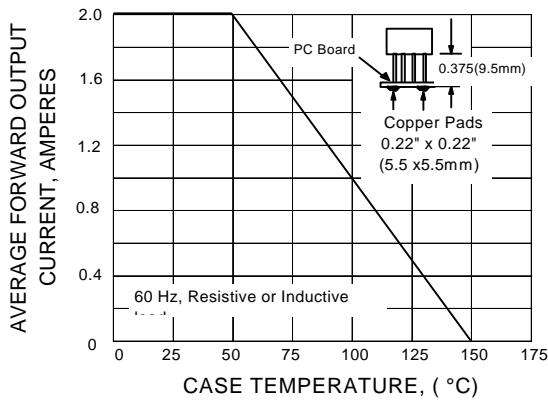


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

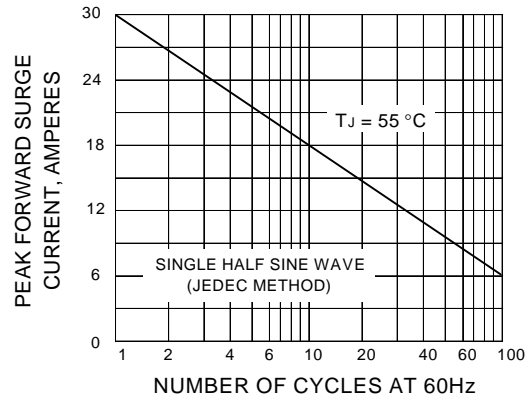


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

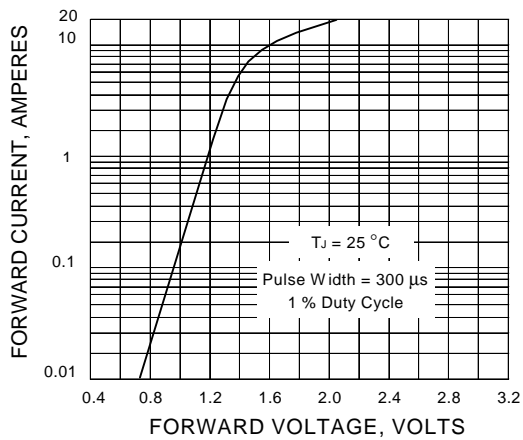


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

