

FW005G - FW10G

PRV : 50 - 1000 Volts
Io : 1.5 Amperes

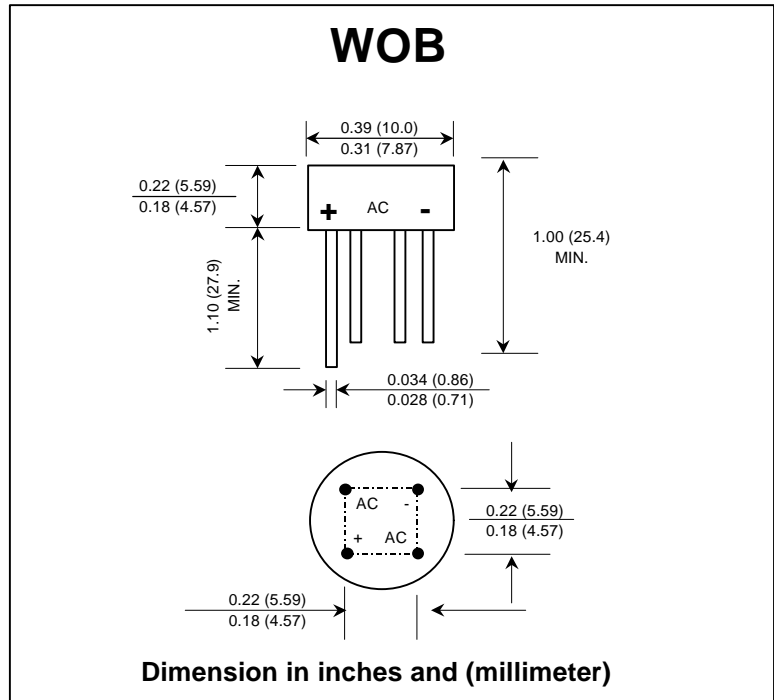
FEATURES :

- * 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

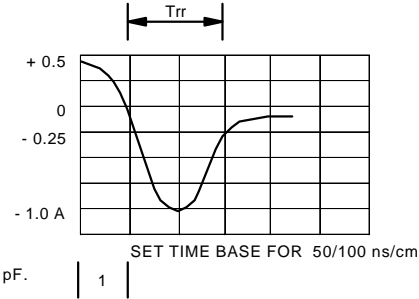
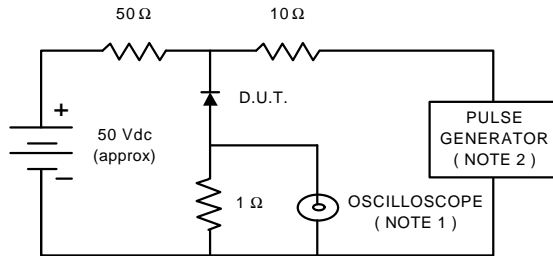
Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

RATING	SYMBOL	FW 005G	FW 01G	FW 02G	FW 04G	FW 06G	FW 08G	FW 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 $T_c = 25^\circ C$	$I_{F(AV)}$	1.5							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^2t	10							A ² S
Maximum Forward Voltage per Diode at $I_F = 1.0$ A	V_F	1.3							V
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Blocking Voltage $T_a = 100^\circ C$	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)	$R_{\theta JA}$	36							$^\circ C/W$
Operating Junction Temperature Range	T_J	- 50 to + 150							$^\circ C$
Storage Temperature Range	T_{STG}	- 50 to + 150							$^\circ C$

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 mounting.

RATING AND CHARACTERISTIC CURVES (FW005G - FW10G)

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

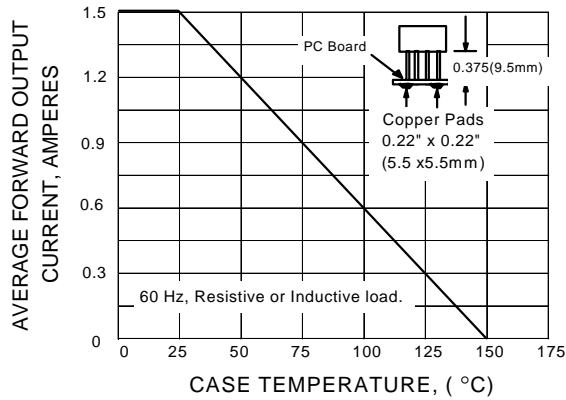


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

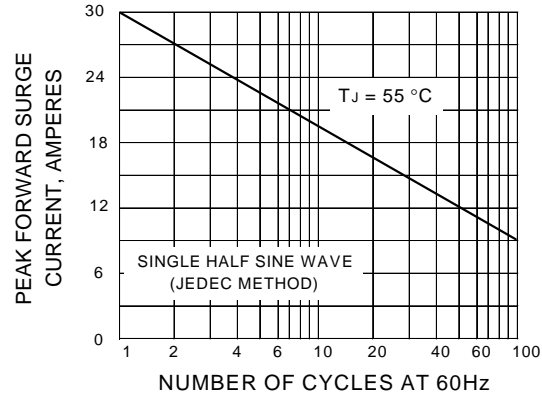


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

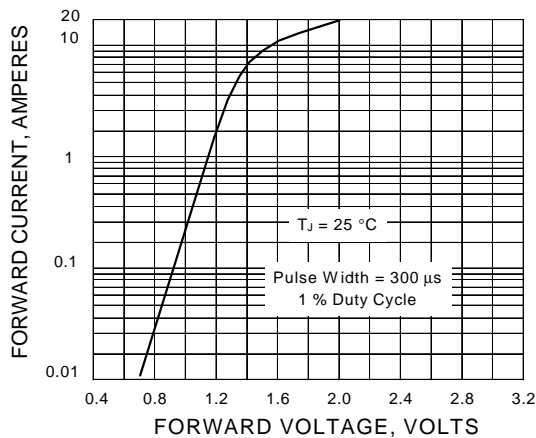


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

