

FWL005G - FWL10G

PRV : 50 - 1000 Volts
Io : 1.0 Ampere

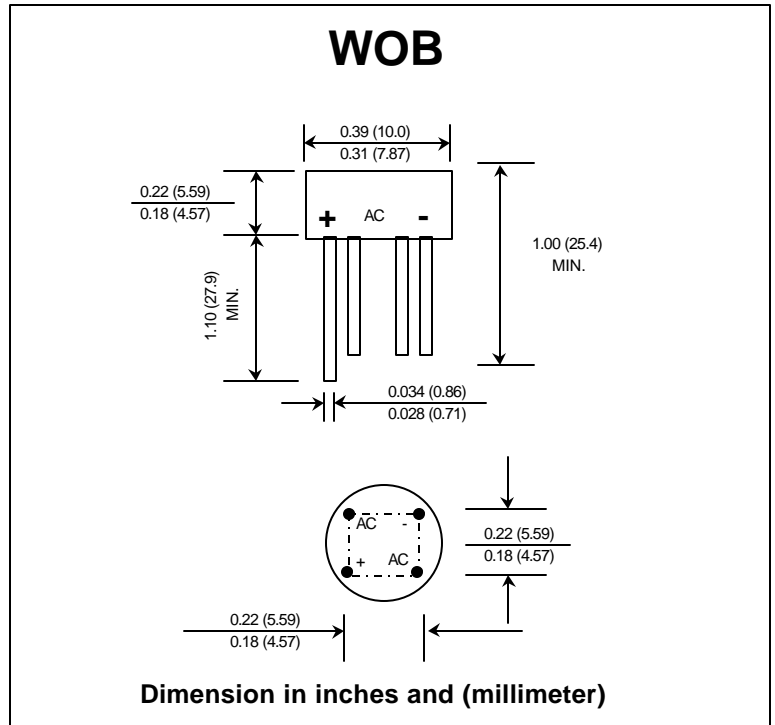
FEATURES :

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

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

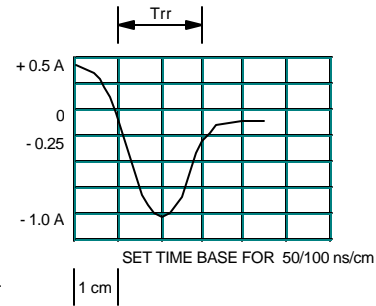
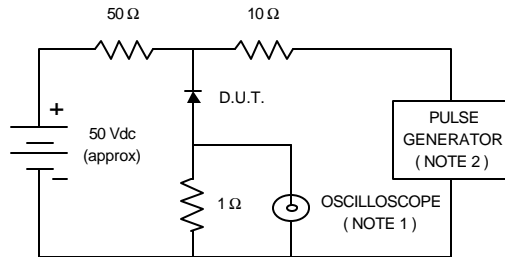
Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

RATING	SYMBOL	FWL 005G	FWL 01G	FWL 02G	FWL 04G	FWL 06G	FWL 08G	FWL 10G	UNIT
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 Current 0.375" (9.5 mm) lead length T _c = 50°C	I _{F(AV)}	1.0							Amps.
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I _{FSM}	30							Amps.
Rating for fusing (t < 8.3 ms.)	I ² _t	10							A ² S
Maximum Forward Voltage per Diode at I _F = 1.0 Amp.	V _F	1.3							Volts
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)	RθJA	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 mounting.

RATING AND CHARACTERISTIC CURVES (FWL005G - FWL10G)

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

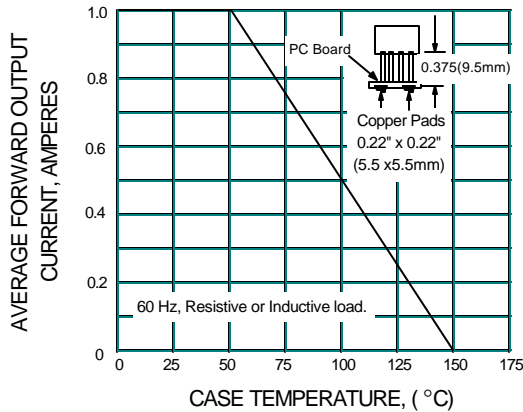


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

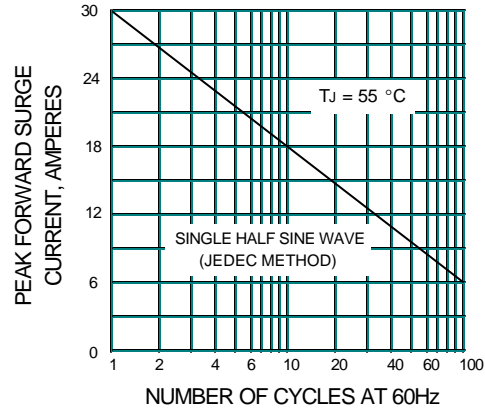


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

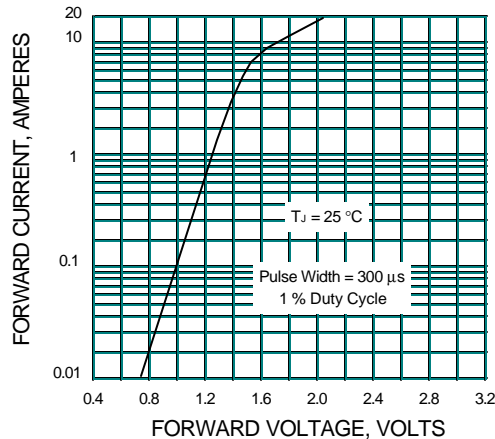


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

