

WL005 - WL10

PRV : 50 - 1000 Volts

Io : 1.0 Ampere

FEATURES :

- * High case dielectric strength
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * 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.

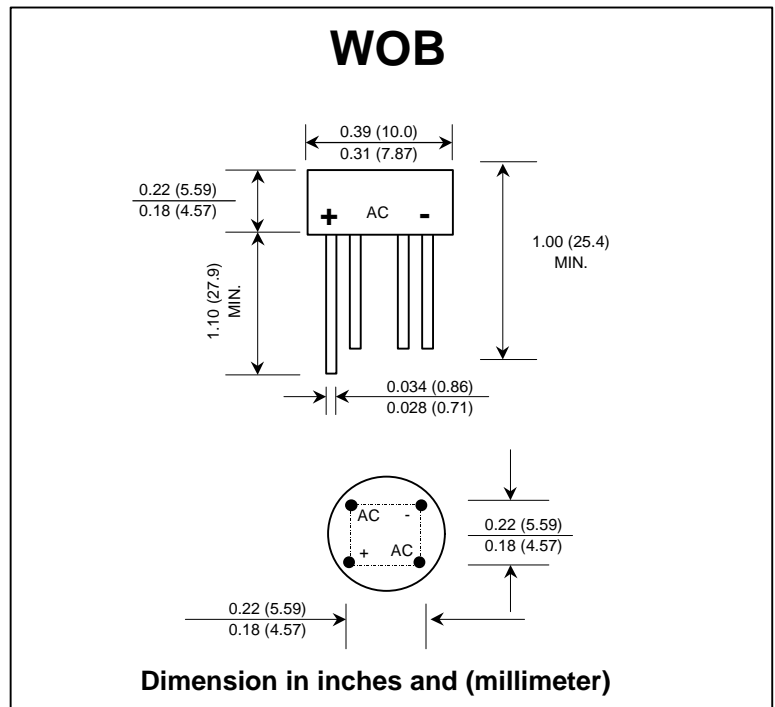
For capacitive load, derate current by 20%.

RATING	SYMBOL	WL005	WL01	WL02	WL04	WL06	WL08	WL10	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 $T_c = 50^\circ\text{C}$	$I_{F(AV)}$	1.0							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^2t	10							A^2S
Maximum Forward Voltage per Diode at $I_F = 1.0$ A	V_F	1.2							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10							μA
	$I_{R(H)}$	1.0							mA
Typical Junction Capacitance per Diode (Note 1)	C_J	24							pf
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	36							$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	- 50 to + 150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 50 to + 150							$^\circ\text{C}$

Notes :

- 1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
- 2) Thermal resistance from Junction to Ambient at 0.375" (9.5 mm) lead length P.C. Board mounting.

SILICON BRIDGE RECTIFIERS



RATING AND CHARACTERISTIC CURVES (WL005 - WL10)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

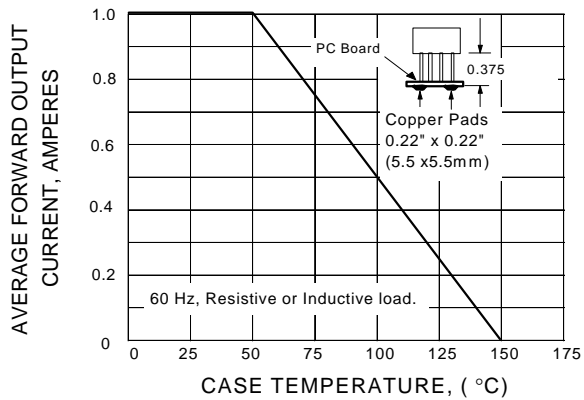


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

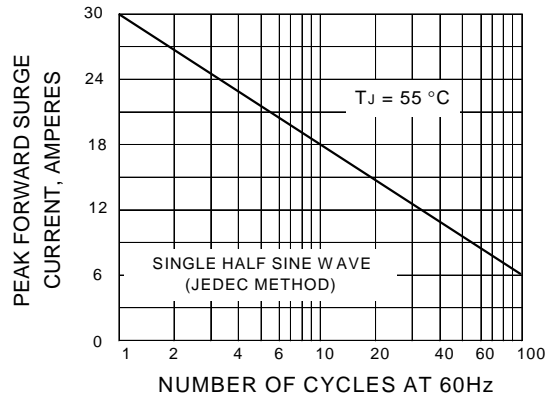


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

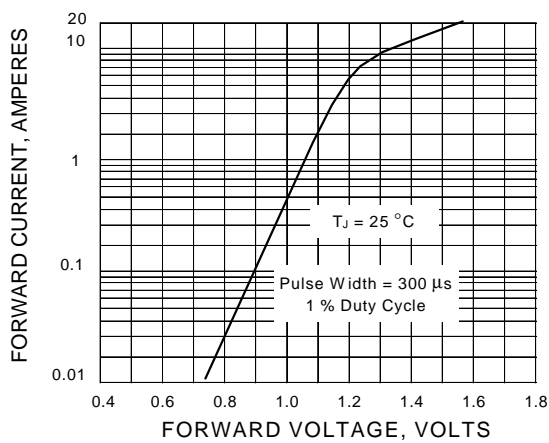


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

