

AB40 - AB380/C 1000G

AVALANCHE GLASS PASSIVATED BRIDGE RECTIFIERS

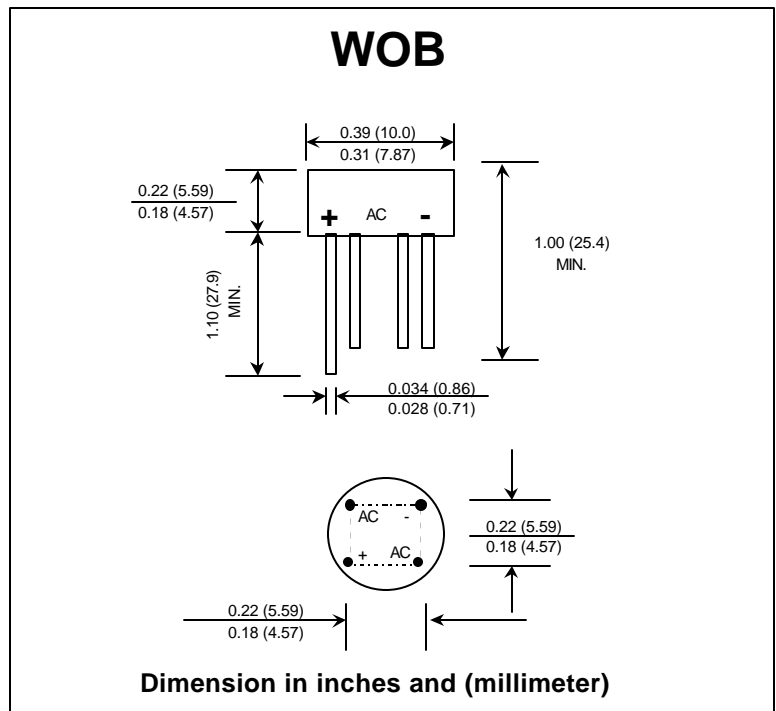
PRV : 100 - 900 Volts
I_o : 1.0 Amperes

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

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	AB40-C1000G	AB80-C1000G	AB125-C1000G	AB250-C1000G	AB380-C1000G	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	300	600	900	Volts
Maximum RMS Input Voltage R+C -Load	V_{RMS}	40	80	125	250	380	Volts
Maximum DC Blocking Voltage	V_{DC}	100	200	300	600	900	Volts
Minimum Avalanche Breakdown Voltage at 100 μ A	$V_{BO(min.)}$	150	250	350	700	1000	Volts
Maximum Avalanche Breakdown Voltage at 100 μ A	$V_{BO(max.)}$	600	700	800	1150	1450	Volts
Maximum Average Forward Current For Free Air Operation at $T_c = 45^\circ\text{C}$ R+L -Load C -Load	$I_{F(AV)}$	1.2 1.0					Amps.
Peak Forward Surge Current Single half sine wave on rated load (JEDEC Method) at $T_J = 125^\circ\text{C}$	I_{FSM}	40					Amps.
Rating for fusing at $T_J = 125^\circ\text{C}$ ($t < 100$ ms.)	I^2t	10					A^2S
Maximum Series Resistor C-Load $V_{RMS} = \pm 10\%$	R_t	1.0	2.0	4.0	8.0	12.0	Ω
Maximum load Capacitance +50% -10%	C_L	5000	2500	1000	500	200	μF
Maximum Forward Voltage per Diode at $I_F = 1.0$ Amp.	V_F	1.0					Volts
Maximum Reverse Current at Rated Repetitive Peak Voltage per Diode $T_a = 25^\circ\text{C}$	I_R	10					μA
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	36					$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	- 50 to + 125					$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 50 to + 125					$^\circ\text{C}$

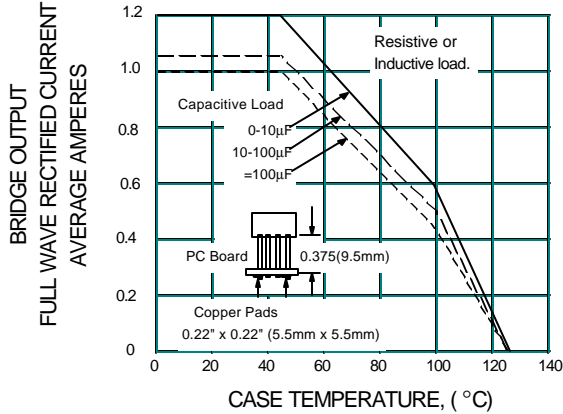
Notes :

- 1) 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.

UPDATE : JUNE 19,1998

RATING AND CHARACTERISTIC CURVES (AB40 - AB380/C1000G)

**FIG.1 - DERATING CURVE
FOR OUTPUT RECTIFIED CURRENT
AB40 C1000G - AB125 C1000G**



**FIG.2 - DERATING CURVE
FOR OUTPUT RECTIFIED CURRENT
AB250 C1000G - AB380 C1000G**

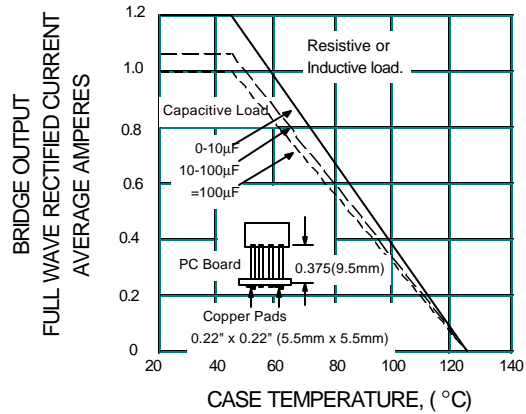


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

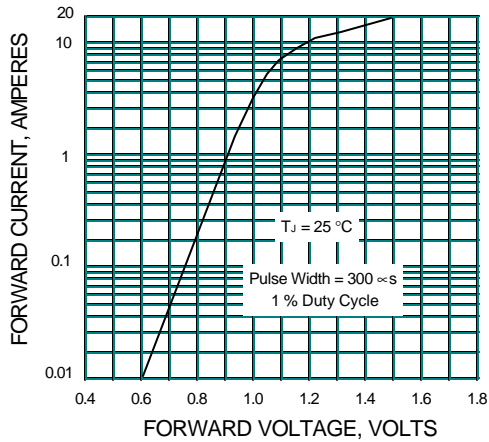
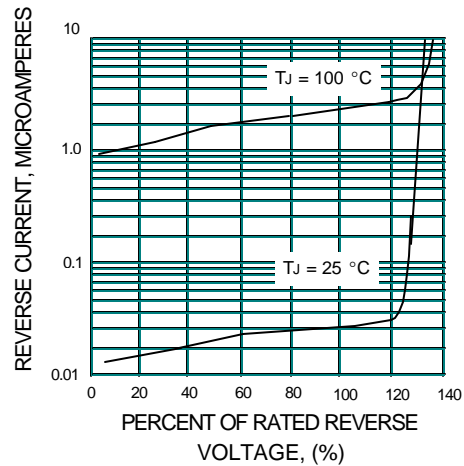
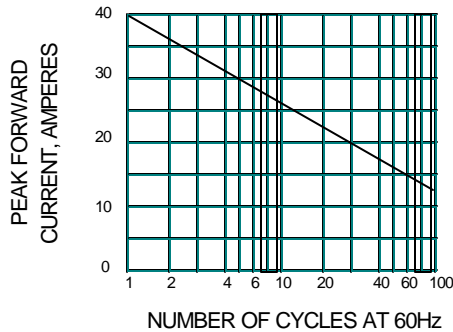


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



**FIG.5 - MAXIMUM NON-REPETITIVE
PEAK FORWARD CURRENT**



**FIG. 6 - TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT**

