

# AB40 - AB380/C 1000G

**PRV : 100 - 900 Volts**  
**Io : 1.0 Amperes**

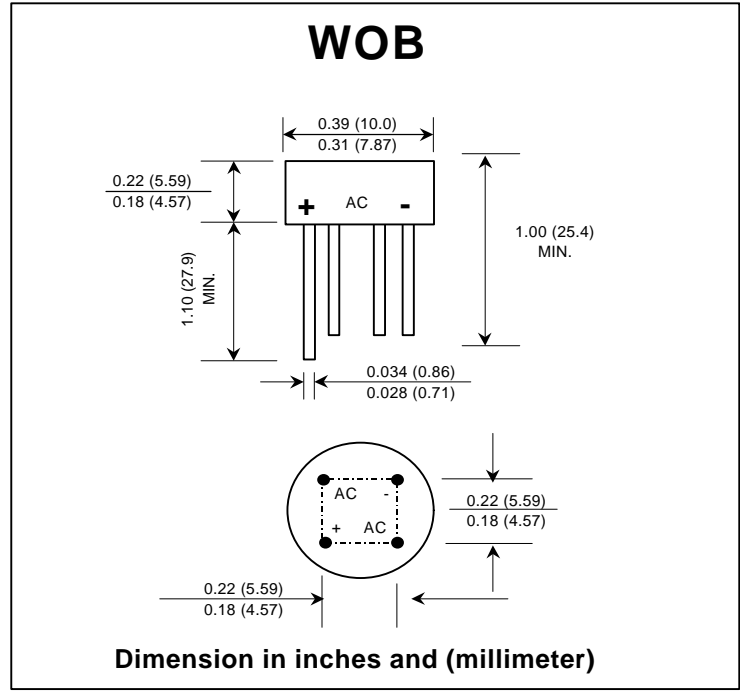
## FEATURES :

- \* 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
- \* **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

# AVALANCHE 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%.

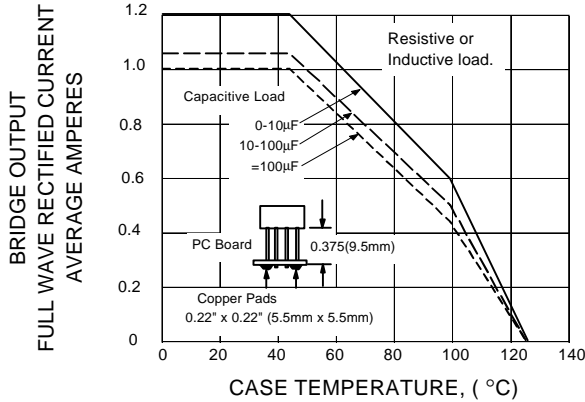
RATING	SYMBOL	AB40-C1000G	AB80-C1000G	AB125-C1000G	AB250-C1000G	AB380-C1000G	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	100	200	300	600	900	V
Maximum RMS Input Voltage R+C -Load	VRMS	40	80	125	250	380	V
Maximum DC Blocking Voltage	VDC	100	200	300	600	900	V
Minimum Avalanche Breakdown Voltage at 100 μA	VBO(min.)	150	250	350	700	1000	V
Maximum Avalanche Breakdown Voltage at 100 μA	VBO(max.)	600	700	800	1150	1450	V
Maximum Average Forward Current For Free Air Operation at Tc = 45°C R+L -Load C -Load	IF(AV)	1.2 1.0					A
Peak Forward Surge Current Single half sine wave on rated load (JEDEC Method) at Tj = 125 °C	IFSM	40					A
Rating for fusing at Tj = 125°C ( t < 100 ms.)	I <sup>2</sup> t	10					A <sup>2</sup> S
Maximum Series Resistor C-Load VRMS = ± 10%	Rt	1.0	2.0	4.0	8.0	12.0	Ω
Maximum load Capacitance + 50% -10%	CL	5000	2500	1000	500	200	μF
Maximum Forward Voltage per Diode at IF = 1.0 A	VF	1.0					V
Maximum Reverse Current at Rated Repetitive Peak Voltage per Diode Ta = 25 °C	IR	10					μA
Typical Thermal Resistance (Note 1)	RθJA	36					°C/W
Operating Junction Temperature Range	Tj	- 50 to + 125					°C
Storage Temperature Range	TSTG	- 50 to + 125					°C

### Notes :

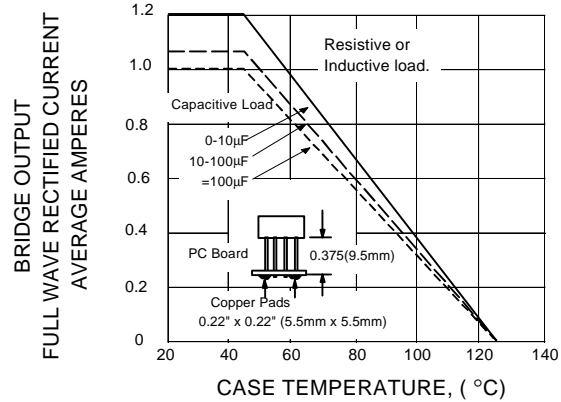
- 1) Thermal resistance from Junction to Ambient at 0.375" (9.5 mm) lead length P.C. Board with, 0.22" x 0.22" (5.5 x 5.5 mm) copper Pads.

## RATING AND CHARACTERISTIC CURVES ( AB40 - AB380/C1000G )

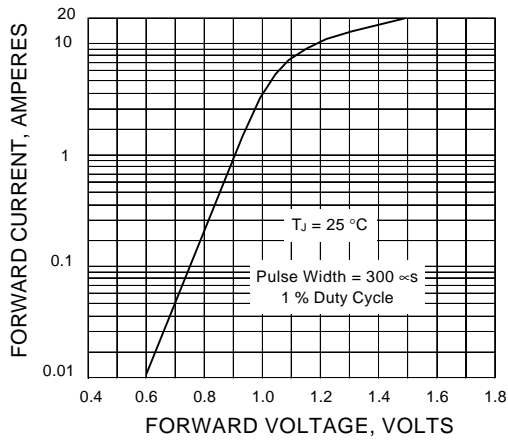
**FIG.1 - DERATING CURVE  
FOR OUTPUT RECTIFIED CURRENT  
AB40 C1000G - AB125 C1000G**



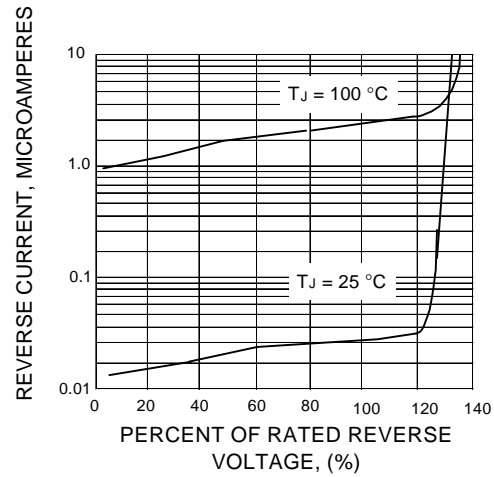
**FIG.2 - DERATING CURVE  
FOR OUTPUT RECTIFIED CURRENT  
AB250 C1000G - AB380 C1000G**



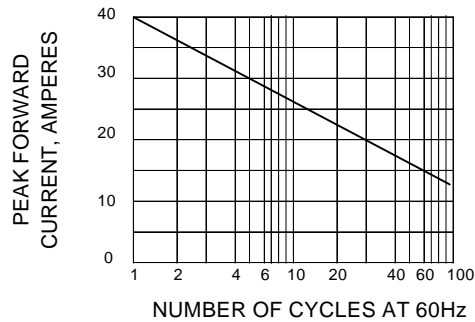
**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**



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



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

