

AW005G - AW10G

AVALANCHE GLASS PASSIVATED BRIDGE RECTIFIERS

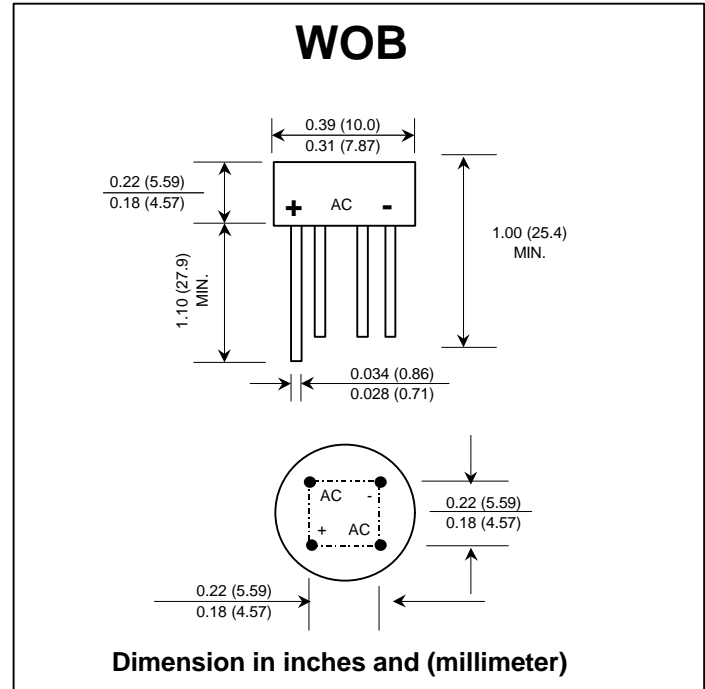
PRV : 50 - 1000 Volts
I_o : 1.5 Amperes

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



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	AW 005G	AW 01G	AW 02G	AW 04G	AW 06G	AW 08G	AW 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
Minimum Avalanche Breakdown Voltage at 100 μA	V _{BO(min.)}	100	150	250	450	700	900	1100	V
Maximum Avalanche Breakdown Voltage at 100 μA	V _{BO(max.)}	550	600	700	900	1150	1350	1550	V
Maximum Average Forward Current 0.375" (9.5 mm) lead length T _c = 25°C	I _{F(AV)}	1.5							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I _{FSM}	50							A
Rating for fusing (t < 8.3 ms.)	I ² t	10							A ² S
Maximum Forward Voltage per Diode at I _F = 1.0 A	V _F	1.0							V
Maximum DC Reverse Current Ta = 25 °C	I _R	10							μA
at Rated DC Blocking Voltage Ta = 100 °C	I _{R(H)}	1.0							mA
Typical Junction Capacitance per Diode (Note 1)	C _J	24							pf
Typical Thermal Resistance (Note 2)	R _{θJA}	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 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.

RATING AND CHARACTERISTIC CURVES (AW005G - AW10G)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

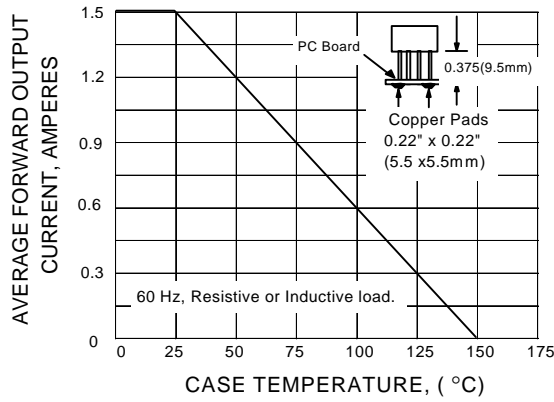


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

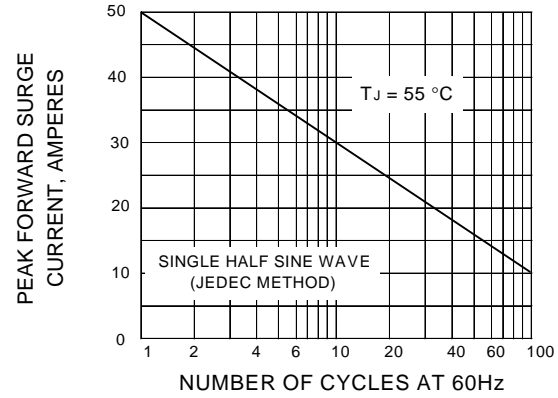


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

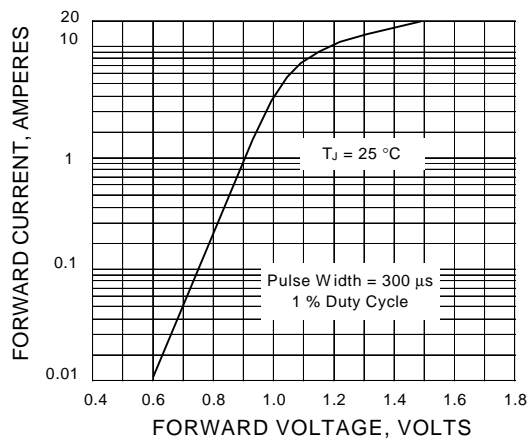


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

