

# AW005G - AW10G

# AVALANCHE GLASS PASSIVATED BRIDGE RECTIFIERS

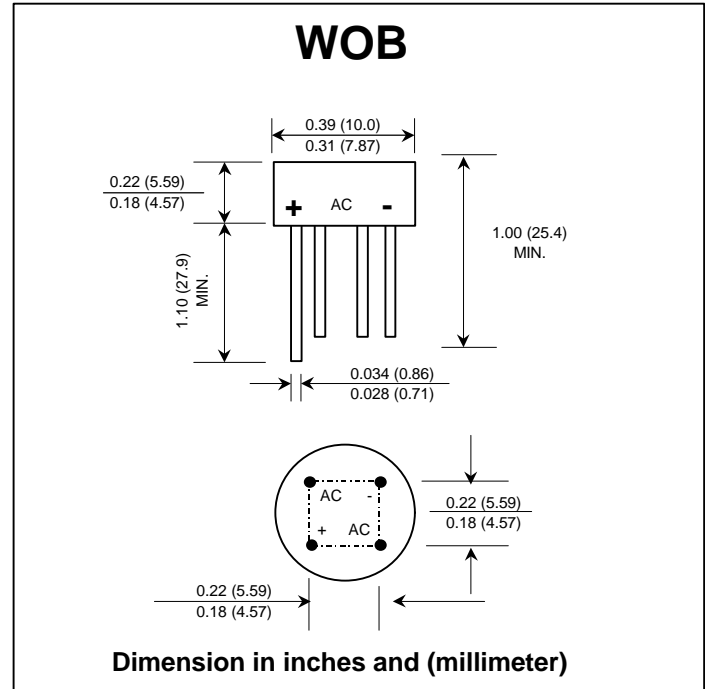
**PRV : 50 - 1000 Volts**  
**I<sub>o</sub> : 1.5 Amperes**

### 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%.

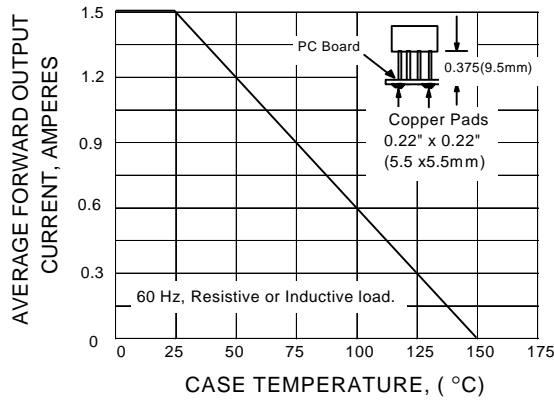
RATING	SYMBOL	AW 005G	AW 01G	AW 02G	AW 04G	AW 06G	AW 08G	AW 10G	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Minimum Avalanche Breakdown Voltage at 100 μA	V <sub>BO(min.)</sub>	100	150	250	450	700	900	1100	V
Maximum Avalanche Breakdown Voltage at 100 μA	V <sub>BO(max.)</sub>	550	600	700	900	1150	1350	1550	V
Maximum Average Forward Current 0.375" (9.5 mm) lead length T <sub>c</sub> = 25°C	I <sub>F(AV)</sub>	1.5							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	50							A
Rating for fusing ( t < 8.3 ms. )	I <sup>2</sup> t	10							A <sup>2</sup> S
Maximum Forward Voltage per Diode at I <sub>F</sub> = 1.0 A	V <sub>F</sub>	1.0							V
Maximum DC Reverse Current Ta = 25 °C	I <sub>R</sub>	10							μA
at Rated DC Blocking Voltage Ta = 100 °C	I <sub>R(H)</sub>	1.0							mA
Typical Junction Capacitance per Diode (Note 1)	C <sub>J</sub>	24							pf
Typical Thermal Resistance (Note 2)	RθJA	36							°C/W
Operating Junction Temperature Range	T <sub>J</sub>	- 50 to + 150							°C
Storage Temperature Range	T <sub>STG</sub>	- 50 to + 150							°C

#### Notes :

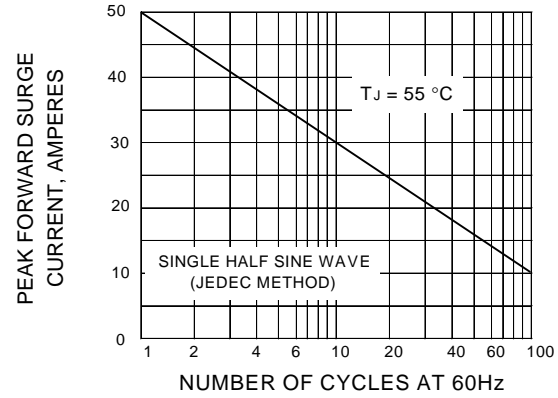
- 1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
- 2) Thermal resistance from Junction to Ambient at 0.375" (9.5 mm) lead length P.C. Board mounting.

## RATING AND CHARACTERISTIC CURVES ( AW005G - AW10G )

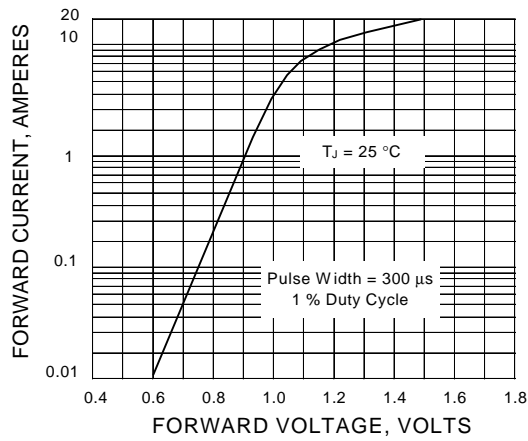
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

