

AW005G - AW10G

AVALANCHE GLASS PASSIVATED BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts

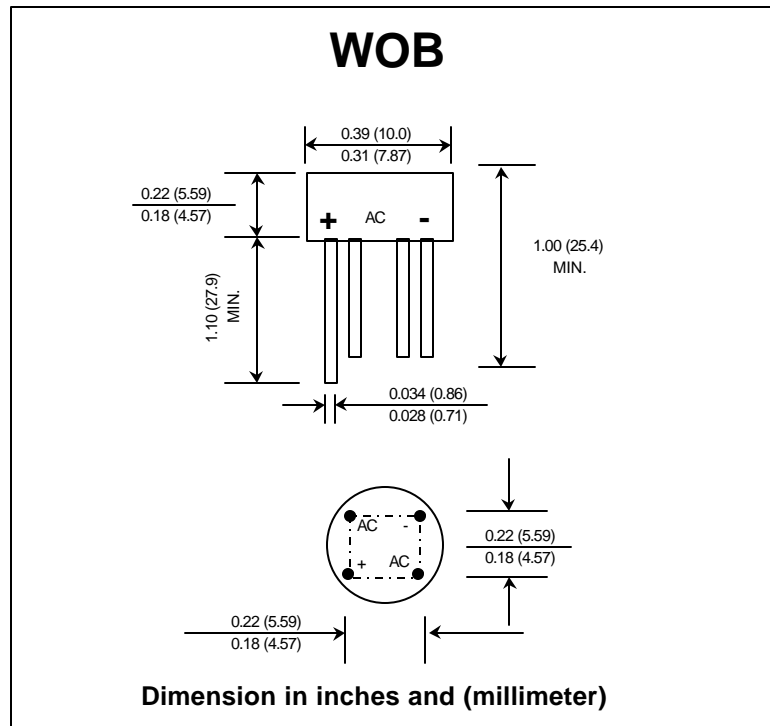
Io : 1.5 Amperes

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

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 | Volts |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Minimum Avalanche Breakdown Voltage at 100 μ A | $V_{BO(min.)}$ | 100 | 150 | 250 | 450 | 700 | 900 | 1100 | Volts |
| Maximum Avalanche Breakdown Voltage at 100 μ A | $V_{BO(max.)}$ | 550 | 600 | 700 | 900 | 1150 | 1350 | 1550 | Volts |
| Maximum Average Forward Current 0.375" (9.5 mm) lead length $T_c = 25^\circ C$ | $I_{F(AV)}$ | 1.5 | | | | | | | Amps. |
| Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method) | I_{FSM} | 50 | | | | | | | Amps. |
| Rating for fusing ($t < 8.3$ ms.) | I_t^2 | 10 | | | | | | | A ² S |
| Maximum Forward Voltage per Diode at $I_F = 1.0$ Amp. | V_F | 1.0 | | | | | | | Volts |
| Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Blocking Voltage $T_a = 100^\circ C$ | I_R | 10 | | | | | | | μ A |
| | $I_{R(H)}$ | 1.0 | | | | | | | mA |
| Typical Junction Capacitance per Diode (Note 1) | C_J | 24 | | | | | | | pf |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 36 | | | | | | | $^\circ C/W$ |
| Operating Junction Temperature Range | T_J | - 50 to + 150 | | | | | | | $^\circ C$ |
| Storage Temperature Range | T_{STG} | - 50 to + 150 | | | | | | | $^\circ C$ |

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

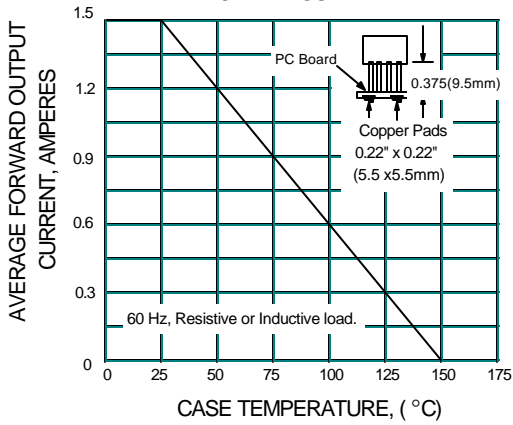


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

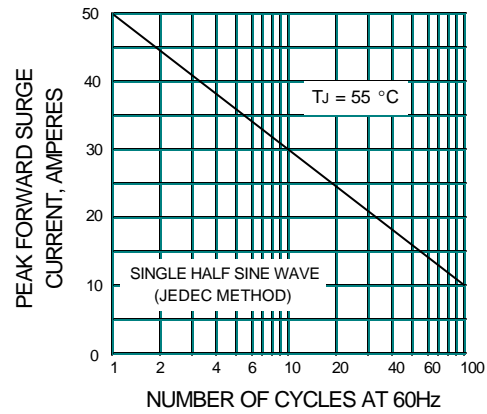


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

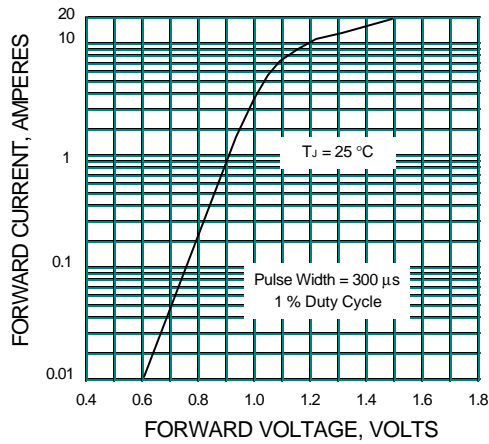


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

