

# DATA SHEET

## W005G~W10G

### 1.5 AMPERE SILICON MINIATURE SINGLE- PHASE BRIDGES

**VOLTAGE - 50 to 1000 Volts CURRENT - 1.5 Amperes**

#### FEATURES

- Ratings to 1000V PRV
- Surge overload rating: 30/50 Amperes peak
- Ideal for printed circuit board
- Reliable construction utilizing molded plastic
- Mounting position:Any

#### MECHANICAL DATA

Case:Reliable low cost construction utilizing molded plastic technique results in inexpensive product.

Terminals: Leads solderable per MIL-STD-202,

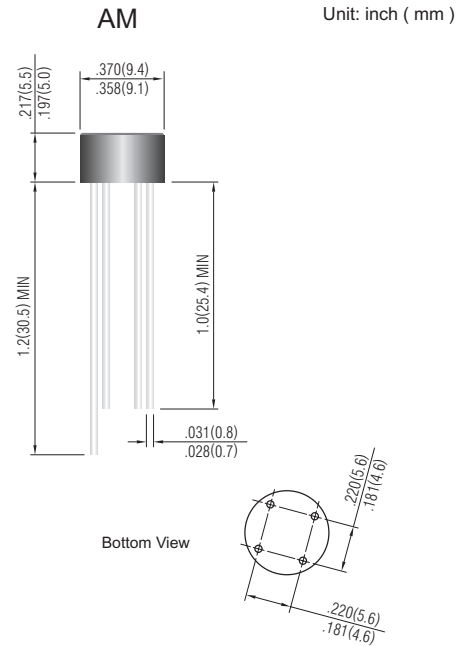
Method 208

Polarity :Polarity symbols marking on body.

Weight: 0.05 ounce, 1.3 grams

Available with 0.50 inch leads(P/N add suffix "S")

For Capacitive load derate current by 20%.



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, Single phase, half wave, 60Hz.

For Capacitive load derate current by 20%.

|   | W005G       | W01G | W02G | W04G | W06G | W08G | W10G | UNITS            |
|---|-------------|------|------|------|------|------|------|------------------|
| Maximum Recurrent Peak Reverse Voltage  | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V                |
| Maximum RMS Bridge input Voltage  | 35          | 70   | 140  | 280  | 420  | 560  | 700  | V                |
| Maximum DC Blocking Voltage   | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V                |
| Maximum Average Forward Current T <sub>A</sub> =50°C                              | 1.5         |      |      |      |      |      |      | A                |
| Peak Forward Surge Current, 8.3ms singlehalf sine-wave superimposed on rated load | 50.0        |      |      |      |      |      |      | A                |
| I <sup>2</sup> t Rating for fusing ( t < 8.35 ms)                                 | 10.0        |      |      |      |      |      |      | A <sup>2</sup> S |
| Maximum Forward Voltage Drop per Bridge Element at 1.0A                           | 1.0         |      |      |      |      |      |      | V                |
| Maximum Reverse Current at Rated T <sub>J</sub> = 25°C                            | 10.0        |      |      |      |      |      |      | μA               |
| DC Blocking Voltage per element T <sub>J</sub> =100°C                             | 1.0         |      |      |      |      |      |      | mA               |
| Typical Junction capacitance per leg (Note 1) C <sub>J</sub>                      | 24.0        |      |      |      |      |      |      | pF               |
| Typical Thermal resistance per leg (Note 2) R <sub>θJA</sub>                      | 36.0        |      |      |      |      |      |      | °C/W             |
| Typical Thermal resistance per leg (Note 2) R <sub>θJA</sub>                      | 13.0        |      |      |      |      |      |      |                  |
| Operating Temperature Range T <sub>J</sub>  | -55 to +125 |      |      |      |      |      |      | °C               |
| Storage Temperature Range T <sub>A</sub>  | -55 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 and from junction to lead mounted on P.C.B. with 0.47 X 0.47"(12 X 12mm) copper pads.

## RATING AND CHARACTERISTIC CURVES

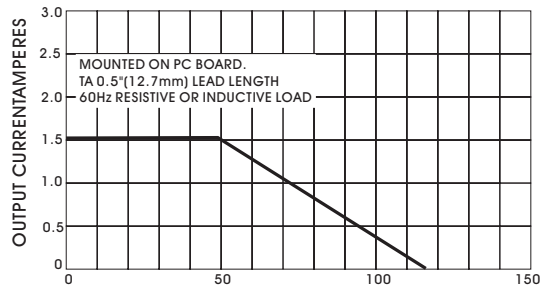


Fig. 1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

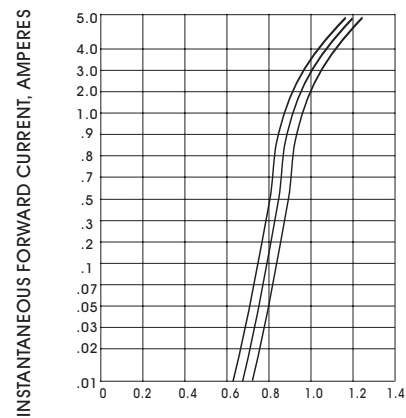


Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS (25°C)

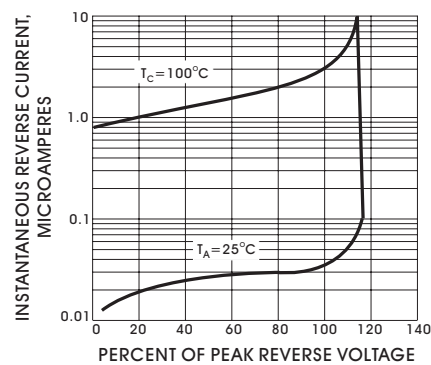


Fig. 3- TYPICAL REAK REVERSE CHARACTERISTICS

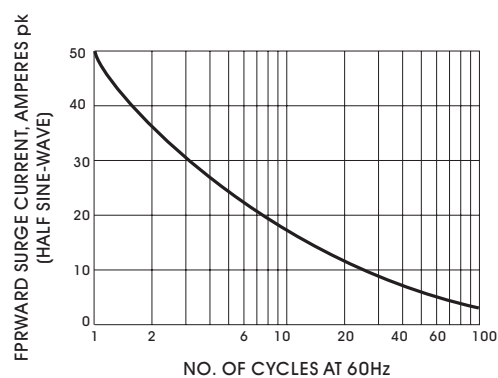


Fig. 4- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT