



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

W005M  
THRU  
W10M

**TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 1.5 Amperes

**FEATURES**

- \* Surge overload ratings to 50 Amperes peak
- \* Good for printed circuit board assembly

**MECHANICAL DATA**

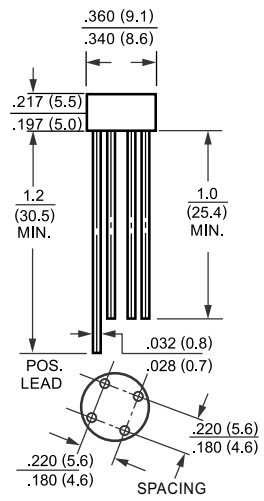
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 1.20 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings 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%.



WOM



Dimensions in inches and (millimeters)

|   | SYMBOL           | W005M        | W01M | W02M | W04M | W06M | W08M | W10M | UNITS              |
|---|------------------|--------------|------|------|------|------|------|------|--------------------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM             | 50           | 100  | 200  | 400  | 600  | 800  | 1000 | Volts              |
| Maximum RMS Bridge Input Voltage  | VRMS             | 35           | 70   | 140  | 280  | 420  | 560  | 700  | Volts              |
| Maximum DC Blocking Voltage   | VDC              | 50           | 100  | 200  | 400  | 600  | 800  | 1000 | Volts              |
| Maximum Average Forward Rectified Output Current at TA = 25°C                                     | Io               | 1.5          |      |      |      |      |      |      | Amps               |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM             | 50           |      |      |      |      |      |      | Amps               |
| Maximum Forward Voltage Drop per element at 1.0A DC   | VF               | 1.0          |      |      |      |      |      |      | Volts              |
| Maximum Reverse Current at Rated DC Blocking Voltage per element                                  | IR               | @TA = 25°C   |      |      |      |      |      |      | uAmps              |
|   |                  | @TA = 100°C  |      |      |      |      |      |      |                    |
| I <sup>2</sup> t Rating for Fusing (t<8.3ms)  | I <sup>2</sup> t | 10           |      |      |      |      |      |      | A <sup>2</sup> Sec |
| Typical Junction Capacitance ( Note1)   | CJ               | 24           |      |      |      |      |      |      | pF                 |
| Typical Thermal Resistance (Note 2)   | RθJA             | 36           |      |      |      |      |      |      | °C/W               |
| Operating Temperature Range   | TJ               | -55 to + 125 |      |      |      |      |      |      | °C                 |
| Storage Temperature Range   | TSTG             | -55 to + 150 |      |      |      |      |      |      | °C                 |

NOTES : 1.Measured at 1 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 0.5 x 0.5" (13x13mm) copper pads.

# RATING AND CHARACTERISTIC CURVES (W005M THRU W10M)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

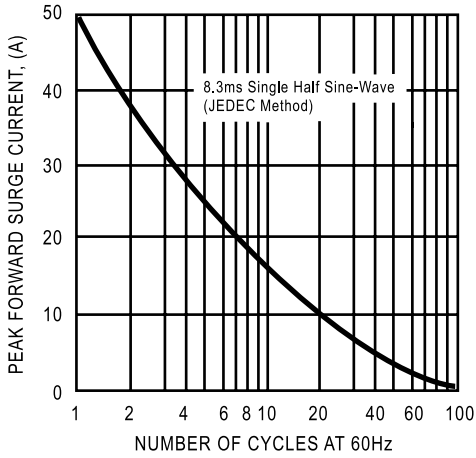


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

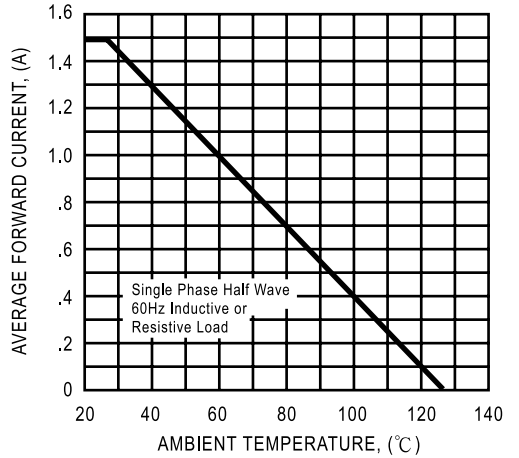


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

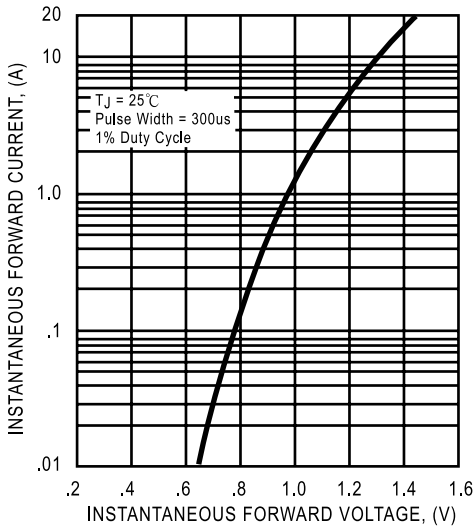
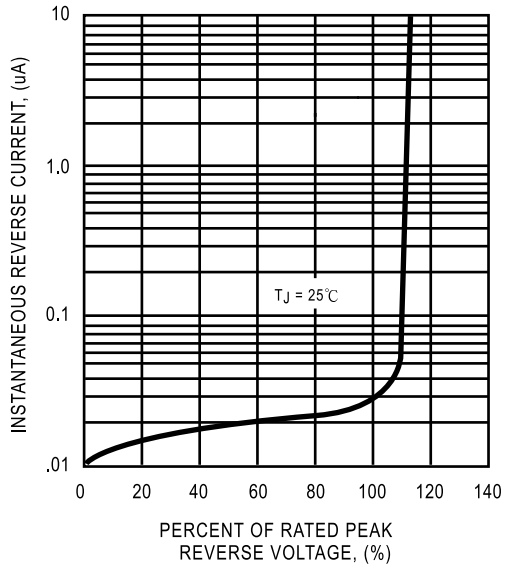


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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