



**DC COMPONENTS CO., LTD.**  
RECTIFIER SPECIALISTS

**W005M  
THRU  
W10M**

**TECHNICAL SPECIFICATIONS OF SINGAL-PHASE SILICON BRIDGE RECTIFIER**

**VOLTAGE RANGE - 50 to 1000 Volts**

**CURRENT - 1.5 Amperes**

**FEATURES**

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

**MECHANICAL DATA**

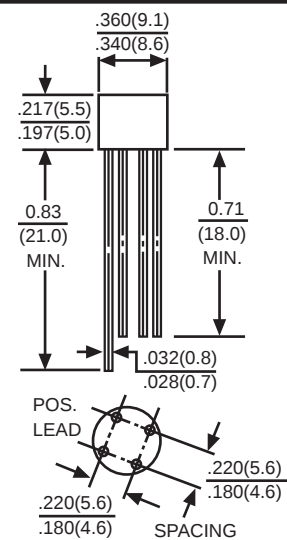
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rated flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 1.2 grams approx.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, 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                                                            |                         | V <sub>RRM</sub>                 | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | Volts |
| Maximum RMS Voltage                                                                               |                         | V <sub>RMS</sub>                 | 35          | 70   | 140  | 280  | 420  | 560  | 700  | Volts |
| Maximum DC Blocking Voltage                                                                       |                         | V <sub>DC</sub>                  | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | Volts |
| Maximum Average Forward Rectified Current at T <sub>A</sub> = 25°C                                |                         | I <sub>O</sub>                   | 1.5         |      |      |      |      |      |      | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) |                         | I <sub>FSM</sub>                 | 50          |      |      |      |      |      |      | Amps  |
| Maximum DC Forward Voltage Drop per Element at 1.5A                                               |                         | V <sub>F</sub>                   | 1.1         |      |      |      |      |      |      | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage                                           | @ T <sub>A</sub> =25°C  | I <sub>R</sub>                   | 10          |      |      |      |      |      |      | μAmps |
|                                                                                                   | @ T <sub>A</sub> =100°C |                                  | 500         |      |      |      |      |      |      |       |
| Typical Junction Capacitance (Note 1)                                                             |                         | C <sub>J</sub>                   | 25          |      |      |      |      |      |      | pF    |
| Typical Thermal Resistance (Note 2)                                                               |                         | R <sub>θJA</sub>                 | 40          |      |      |      |      |      |      | °C/W  |
| Operating and Storage Temperature Range                                                           |                         | T <sub>J</sub> ,T <sub>STG</sub> | -55 to +150 |      |      |      |      |      |      | °C    |

Note 1: Measured at 1.0 MHZ and applied reverse voltage of 4.0V DC.

Note 2: Typical thermal resistance from junction to ambient.

# RATING AND CHARACTERISTIC CURVES (W005M THRU W10M)

FIG. 1  
TYPICAL FORWARD CURRENT  
DERATING CURVE

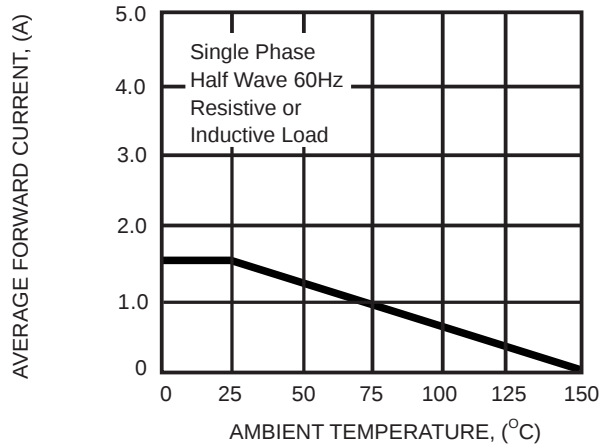


FIG. 2  
MAXIMUM NON-REPETITIVE FORWARD  
SURGE CURRENT

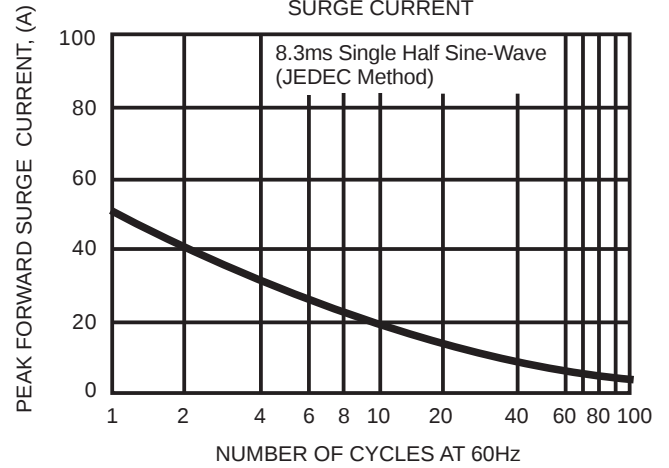


FIG. 3  
TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS

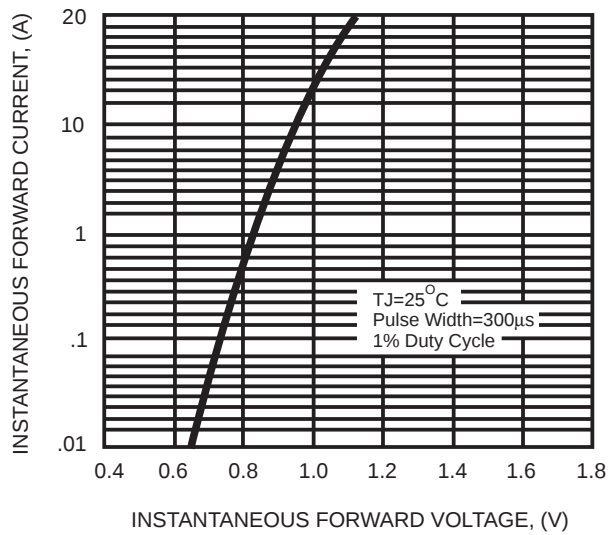
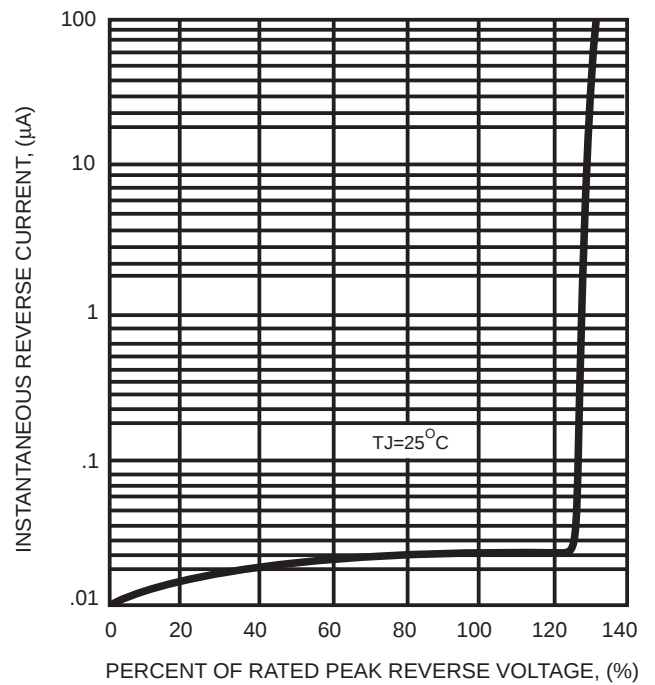


FIG. 4  
TYPICAL REVERSE CHARACTERISTICS



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