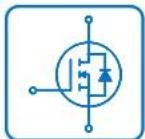




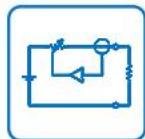
ESD



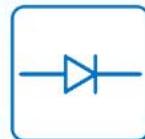
TVS



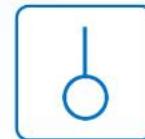
MOS



LDO



Diode



Sensor



DC-DC

## Product Specification

|              |             |          |
|--------------|-------------|----------|
| ▶ Domestic   | Part Number | W005-W10 |
| ▶ Overseas   | Part Number | W005-W10 |
| ▶ Equivalent | Part Number | W005-W10 |



## W005 thru W10

### 1.5 A Single-Phase Silicon Bridge Rectifier

Rectifier Reverse Voltage 50 to 1000V



#### Features

- This series is UL listed under the Recognized Component Index, file number E142814
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Ideal for printed circuit board mounting
- High surge current capability
- High temperature soldering guaranteed 265°C /10 seconds at 5 lbs (2.3kg) tension

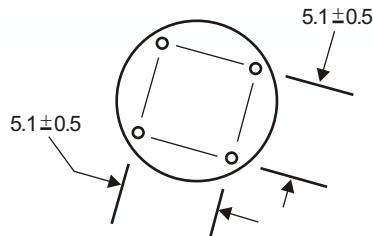
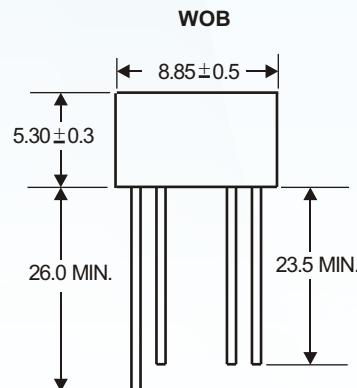
#### Mechanical Data

Case: Reliable low cost construction utilizing molded plastic technique

Terminals: Plated leads solderable per MIL-STD-202, Method 208

Mounting Position: Any

Weight: 0.05 ounce, 1.3 grams (approx)



Dimensions in millimeters (1mm = 0.0394")

#### Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
For Capacitive load derate current by 20%.

| Parameter   | Symbol                            | W005 | W01 | W02 | W04          | W06 | W08 | W10  | unit               |
|---|-----------------------------------|------|-----|-----|--------------|-----|-----|------|--------------------|
| Maximum repetitive peak reverse voltage   | VRRM                              | 50   | 100 | 200 | 400          | 600 | 800 | 1000 | V                  |
| Maximum RMS bridge input voltage  | VRMS                              | 35   | 70  | 140 | 280          | 420 | 560 | 700  | V                  |
| Maximum DC blocking voltage   | VDC                               | 50   | 100 | 200 | 400          | 600 | 800 | 1000 | V                  |
| Maximum average forward rectified output current at TA=25°C                           | IF(AV)                            |      |     |     |              | 1.5 |     |      | A                  |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM                              |      |     |     |              | 50  |     |      | A                  |
| Rating for fusing ( t<8.3ms)  | I <sup>2</sup> t                  |      |     |     | 10           |     |     |      | A <sup>2</sup> sec |
| Typical thermal resistance per element(1)   | RthJA                             |      |     |     | 50.0         |     |     |      | °C / W             |
| Typical junction capacitance per element (2)  | C <sub>j</sub>                    |      |     |     | 24           |     |     |      | pF                 |
| Operating junction and storage temperature range                                      | T <sub>J</sub> , T <sub>TSG</sub> |      |     |     | -55 to + 150 |     |     |      | °C                 |

#### Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
For Capacitive load derate by 20 %.

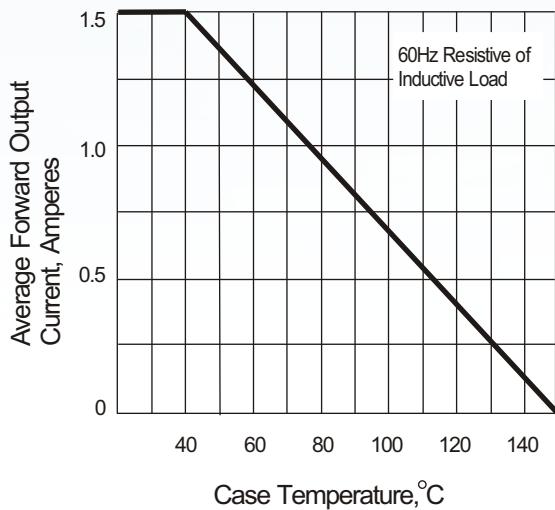
| Parameter   | Symbol | W005 | W01 | W02M | W04 | W06  | W08 | W10 | Unit |
|---|--------|------|-----|------|-----|------|-----|-----|------|
| Maximum instantaneous forward voltage drop per leg at 1.5A                                | VF     |      |     |      | 1.1 |      |     |     | V    |
| Maximum DC reverse current at rated TA =25°C<br>DC blocking voltage per element TA =100°C | IR     |      |     |      | 10  | 1000 |     |     | μA   |

Notes: (1)Thermal resistance from Junction to Ambient on P.C.board mounting.

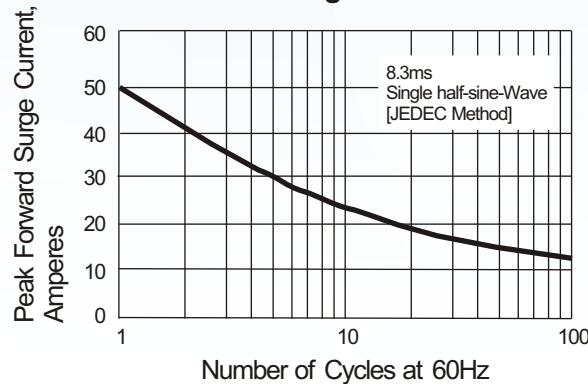
(2)Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

**Rating and Characteristic Curves ( TA=25 °C Unless otherwise noted )**  
**W005 thru W10**

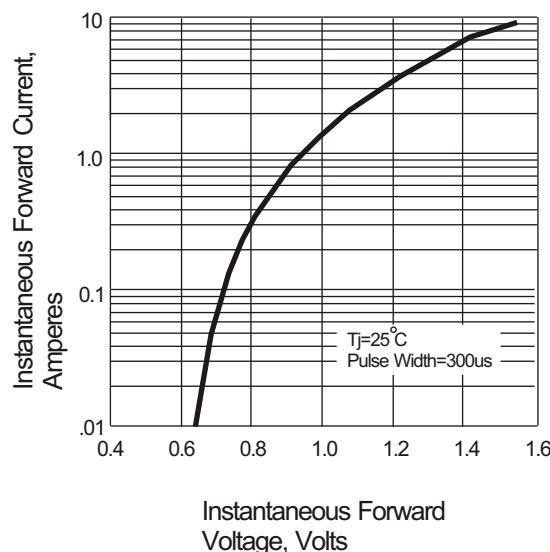
**Fig. 1 Derating Curve for Output Rectified Current**



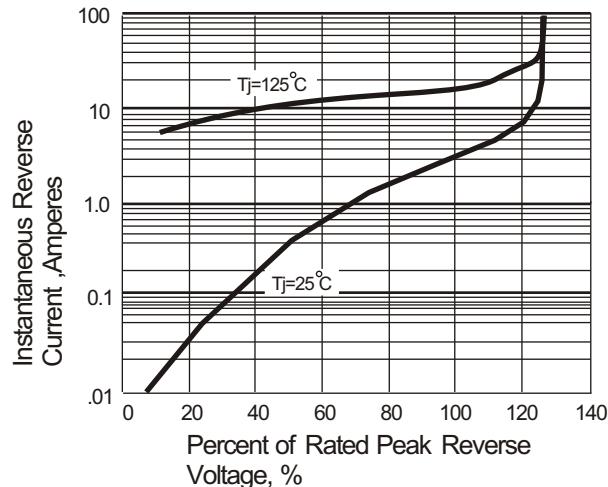
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



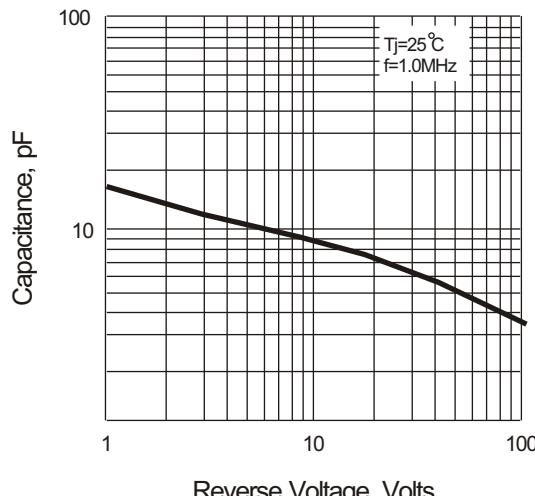
**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics**



**Fig. 5 Typical Junction Capacitance**



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