

## W005 - W10

**PRV : 50 - 1000 Volts**

**Io : 1.5 Ampere**

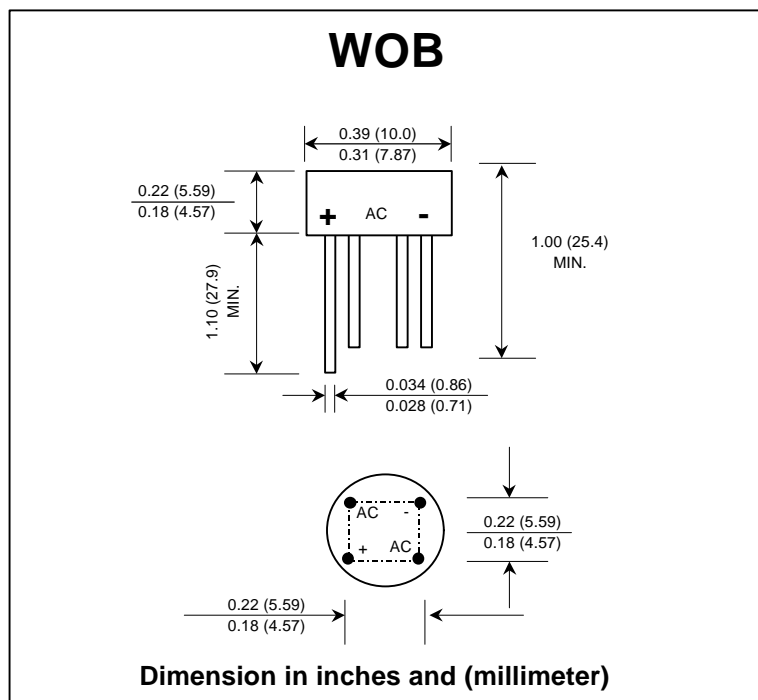
### FEATURES :

- \* High case dielectric strength
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Ideal for printed circuit board
- \* **Pb / RoHS Free**

### 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

## SILICON BRIDGE RECTIFIERS



## 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%.

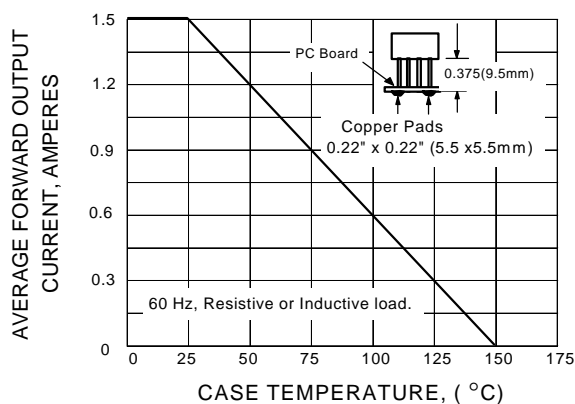
| RATING  | SYMBOL          | W005          | W01 | W02 | W04 | W06 | W08 | W10  | UNIT             |
|---|-----------------|---------------|-----|-----|-----|-----|-----|------|------------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 50            | 100 | 200 | 400 | 600 | 800 | 1000 | V                |
| Maximum RMS Voltage   | $V_{RMS}$       | 35            | 70  | 140 | 280 | 420 | 560 | 700  | V                |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 50            | 100 | 200 | 400 | 600 | 800 | 1000 | V                |
| Maximum Average Forward Current<br>0.375" (9.5 mm) lead length                                | $I_{F(AV)}$     | 1.5           |     |     |     |     |     |      | A                |
| Peak Forward Surge Current Single half sine wave<br>Superimposed on rated load (JEDEC Method) | $I_{FSM}$       | 50            |     |     |     |     |     |      | A                |
| Rating for fusing ( t < 8.3 ms. )   | $I^2t$          | 10            |     |     |     |     |     |      | A <sup>2</sup> S |
| Maximum Forward Voltage per Diode at $I_F = 1.0$ A  | $V_F$           | 1.0           |     |     |     |     |     |      | V                |
| Maximum DC Reverse Current $T_a = 25$ °C  | $I_R$           | 10            |     |     |     |     |     |      | μA               |
| at Rated DC Blocking Voltage $T_a = 100$ °C   | $I_{R(H)}$      | 1.0           |     |     |     |     |     |      | mA               |
| Typical Junction Capacitance per Diode (Note 1)   | $C_J$           | 14            |     |     |     |     |     |      | pf               |
| Typical Thermal Resistance (Note 2)   | $R_{\theta JA}$ | 36            |     |     |     |     |     |      | °C/W             |
| Operating Junction Temperature Range  | $T_J$           | - 50 to + 150 |     |     |     |     |     |      | °C               |
| Storage Temperature Range   | $T_{STG}$       | - 50 to + 150 |     |     |     |     |     |      | °C               |

### Notes :

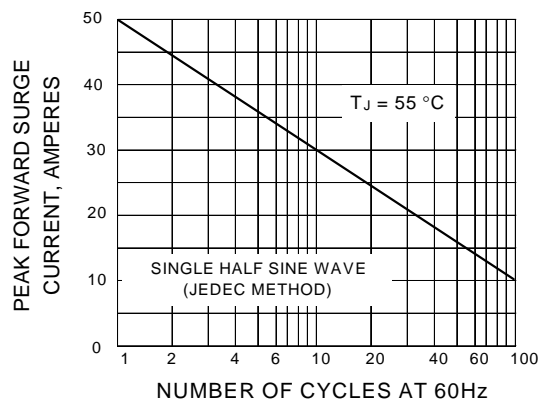
- 1 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
- 2 ) Thermal resistance from Junction to Ambient at 0.375" (9.5 mm) lead length P.C. Board mounting.

## RATING AND CHARACTERISTIC CURVES ( W005 - W10 )

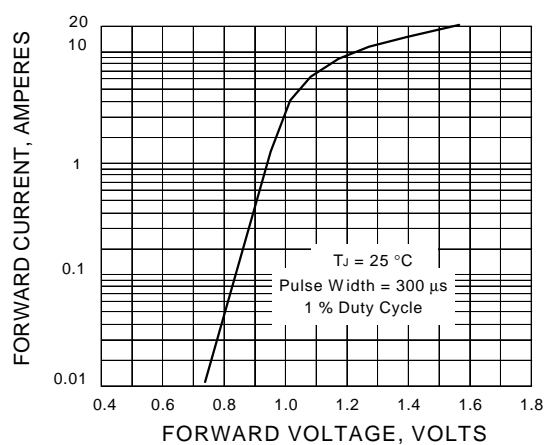
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

