

# Single-Phase Silicon Bridge Rectifier – WOM Package

W005M to W10M

MERITEK

## FEATURE

- Surge Overload rating: 40 amperes peak
- Forward Current: 1.5A
- Reverse Voltage: 50~1000V
- Terminal: Plated leads solderable per MIL-STD-202, method 208
- Weight: 0.05 ounce, 1.3 gram
- UL/cUL safety approved: certification No: E223027



## ELECTRICAL CHARACTERISTICS

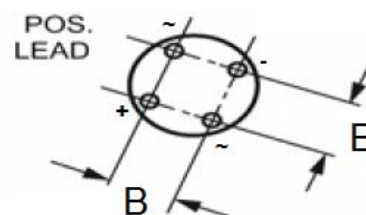
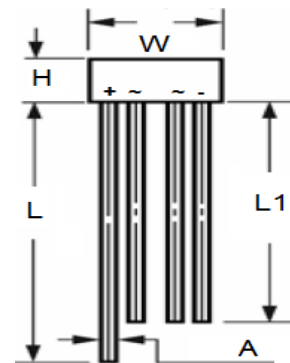


| Parameter   | Symbols         | W005M  | W01M | W02M | W04M | W06M | W08M | W10M | Unit          |
|---|-----------------|--|------|------|------|------|------|------|---------------|
| Maximum Recerrent Peak Reverse Voltage  | $V_{RRM}$       | 50   | 100  | 200  | 400  | 600  | 800  | 1000 | V             |
| 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 Rectified Current .375"(9.5mm) Lead Length at $T_A=50^{\circ}C$           | $I_{(AV)}$      | 1.5  |      |      |      |      |      |      | A             |
| Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$       | 40.0   |      |      |      |      |      |      | A             |
| Maximum Forward Voltage at 1.0A DC and $25^{\circ}C$  | $V_F$           | 1.0  |      |      |      |      |      |      | V             |
| Maximum Reverse Current at Rated DC Blocking Voltage  | $I_R$           | 5.0 at $T_A=20^{\circ}C$ , 500 at $T_A=100^{\circ}C$ |      |      |      |      |      |      | $\mu A$       |
| Typical Junction Capacitance, applied reverse voltage of 4.0 VDC at 1MHz.                         | $C_J$           | 24.0   |      |      |      |      |      |      | pF            |
| Typical Thermal Resistance, form junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted.    | $R_{\theta JA}$ | 36.0   |      |      |      |      |      |      | $^{\circ}C/W$ |
|   | $R_{\theta JL}$ | 13.0   |      |      |      |      |      |      | $^{\circ}C/W$ |
| Operating and Storage Temperature Range   | $T_J, T_{stg}$  | -55 to +150  |      |      |      |      |      |      | $^{\circ}C$   |

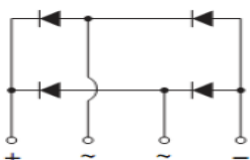
Rating at  $25^{\circ}C$ , ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

## DIMENSIONS

| Item | Milimeters |      |
|------|------------|------|
|      | Min.       | Max. |
| W    | 8.6        | 9.1  |
| H    | 5.0        | 5.5  |
| L    | 30.5       | -    |
| L1   | 25.4       | -    |
| A    | 0.7        | 0.8  |
| B    | 4.6        | 5.6  |



## FUNCTIONAL DIAGRAM



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## RATINGS AND CHARACTERISTICS CURVES

Fig.1 Maximum Non-Repetitive Forward Surge Current Per Bridge Element

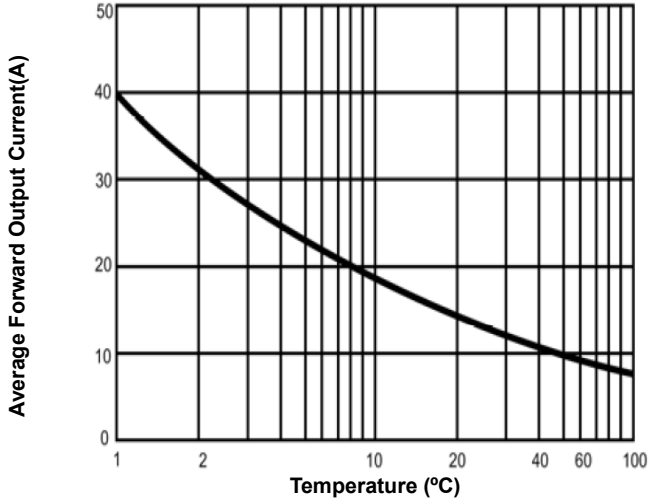


Fig 2. Maximum Current Derating Curve Output Rectified Current

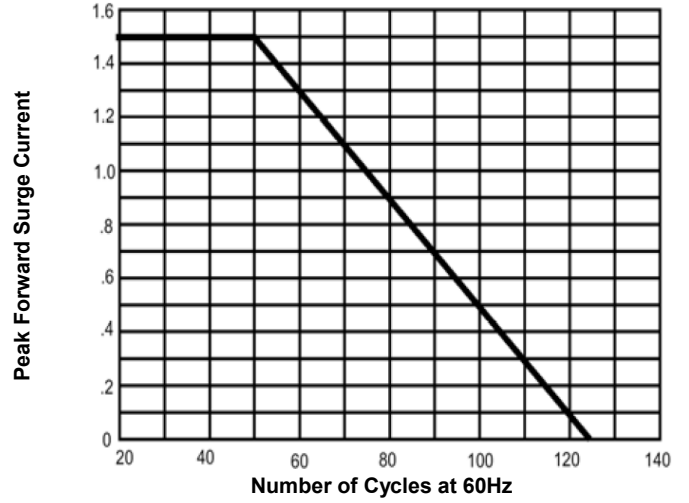


Fig 3. Typical Forward Characteristic Per Leg

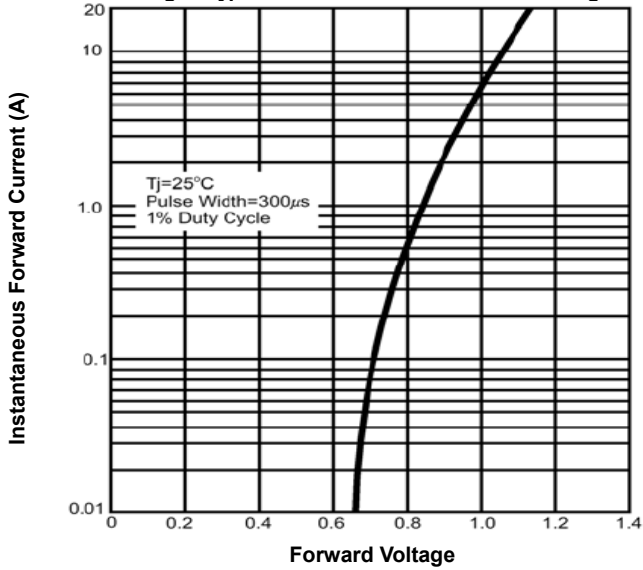


Fig 4. Typical Reverse Characteristics Per Bridge Element

