



# 1W005GM THRU 1W10GM

Single Phase 1.0 AMP. Glass Passivated Bridge Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
1.0 Ampere

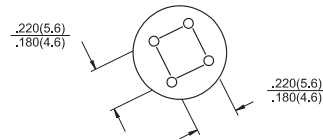
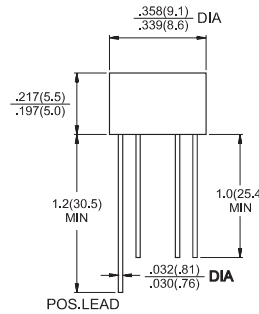
## Features

- ✧ UL Recognized File # E-96005
- ✧ Glass passivated junction
- ✧ Surge overload ratings to 30 amperes peak
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction technique results in inexpensive product
- ✧ High temperature soldering guaranteed: 260°C / 10 seconds / 0.375" ( 9.5mm ) lead length at 5 lbs. ( 2.3 Kg ) tension

## Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Lead: Solder plated
- ✧ Polarity: As marked
- ✧ Weight: 1.10 grams

### WOB



Dimensions in inches and (millimeters)

## 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%

| Type Number  | Symbol                             | 1W          | 1W   | 1W   | 1W   | 1W   | 1W   | 1W   | Units              |
|--|------------------------------------|-------------|------|------|------|------|------|------|--------------------|
|  |                                    | 005GM       | 01GM | 02GM | 04GM | 06GM | 08GM | 10GM |                    |
| 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 Rectified Current @ $T_A = 50^\circ C$                                     | $I_{(AV)}$                         | 1.0         |      |      |      |      |      |      | A                  |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$                          | 30          |      |      |      |      |      |      | A                  |
| Maximum Instantaneous Forward Voltage @ 1.0A   | $V_F$                              | 1.0         |      |      |      |      |      |      | V                  |
| Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$     | $I_R$                              | 10<br>500   |      |      |      |      |      |      | $\mu A$<br>$\mu A$ |
| Typical Thermal Resistance (Note)  | $R_{\theta JA}$<br>$R_{\theta JL}$ | 36<br>13    |      |      |      |      |      |      | $^{\circ}C/W$      |
| Operating Temperature Range  | $T_J$                              | -55 to +150 |      |      |      |      |      |      | $^{\circ}C$        |
| Storage Temperature Range  | $T_{STG}$                          | -55 to +150 |      |      |      |      |      |      | $^{\circ}C$        |

Note: Thermal resistance from Junction to Ambient and from Junction to Lead Mounted on P.C.B. with 0.2" x 0.2" (5mm x 5mm) Copper Pads.

## RATINGS AND CHARACTERISTIC CURVES (1W005GM THRU 1W10GM)

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

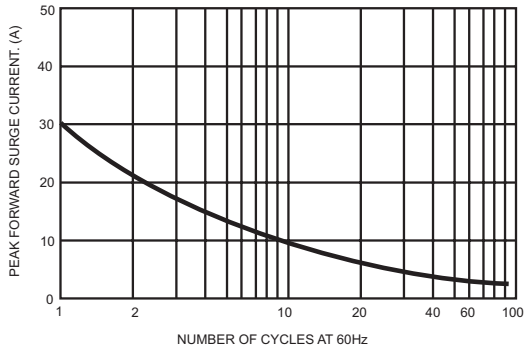


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

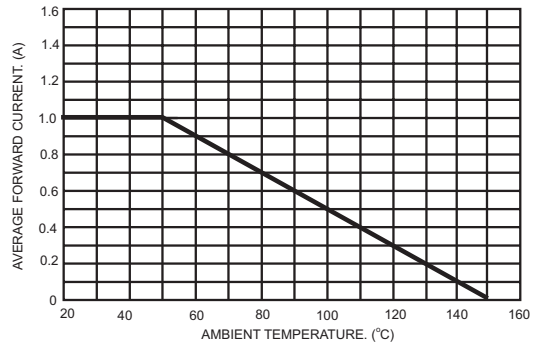


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

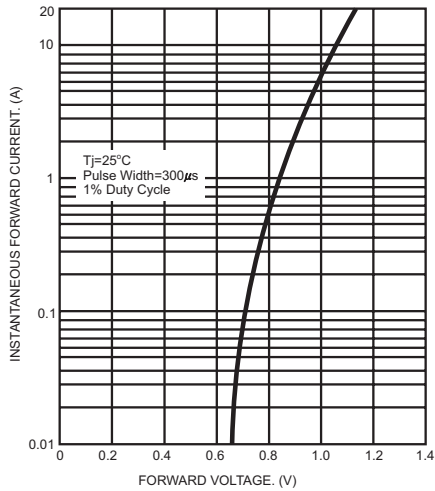


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

