

# W005M THRU W10M

## SINGLE-PHASE SILICON BRIDGE RECTIFIER



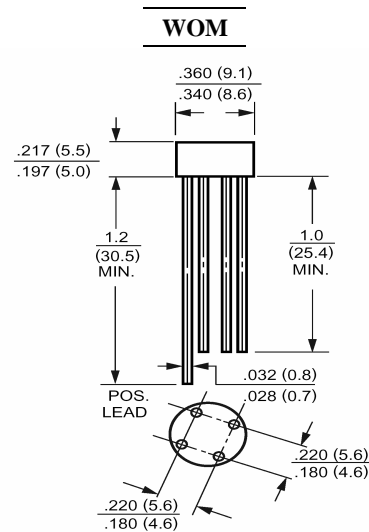
**REVERSE VOLTAGE:** 50 to 1000 VOLTS  
**FORWARD CURRENT:** 1.5 AMPERE

### FEATURES

- Surge overload rating: 40 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed: 250°C / 10SEC/ 9.5mm lead length at 2.3kg tension

### MECHANICAL DATA

Case: Reliable low cost construction utilizing molded plastic technique results in inexpensive product  
 Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed  
 Mounting position: Any  
 Weight: 0.05ounce, 1.3gram



Dimensions in inches and (millimeters)

### 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%.

	Symbols	W005M	W01M	W02M	W04M	W06M	W08M	W10M	Units
Maximum Recerrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at $T_A=50^\circ\text{C}$	$I_{(AV)}$	1.5							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	40.0							Amp
Maximum Forward Voltage at 1.0A DC and 25°C	$V_F$	1.0							Volts
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$	5.0 500							uAmp
Typical Junction Capacitance (Note 1)	$C_J$	24							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	36.0							°C/W
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	13.0							°C/W
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150							°C

### NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Thermal Resistance Junction to Ambient and form junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted.

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### RATINGS AND CHARACTERISTIC CURVES

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

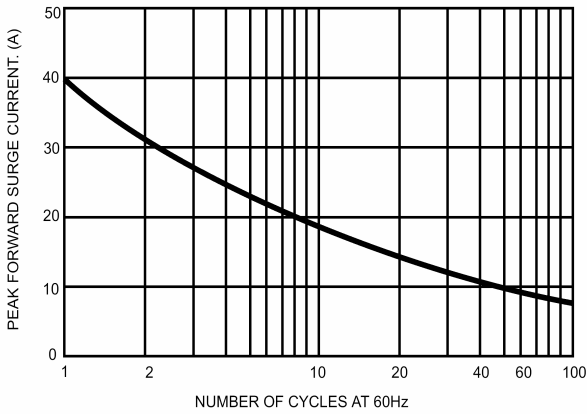


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

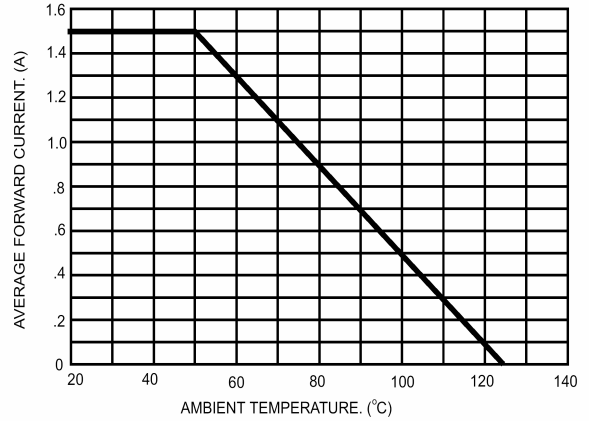


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

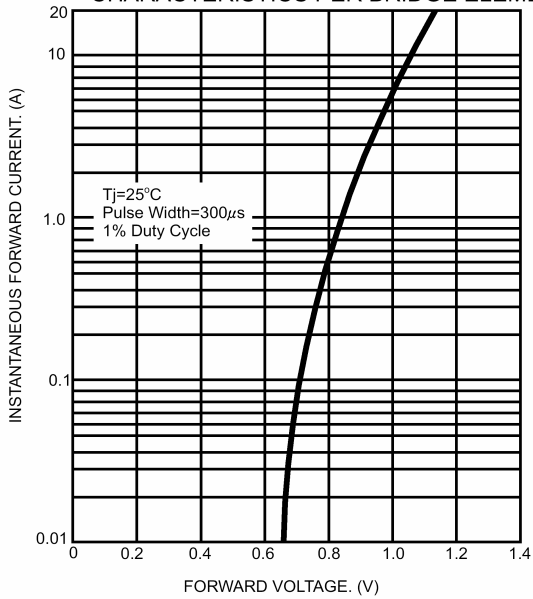


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

