**TSC 9b** 

## **2W005M** THRU **2W10M**

Single Phase 2.0 AMPS. Silicon Bridge Rectifiers



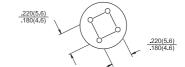
Voltage Range 50 to 1000 Volts Current 2.0 Amperes

**WOB** 

#### **Features**

- ♦ UL Recognized File # E-96005
- Surge overload ratings to 50 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

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Dimensions in inches and (millimeters)

#### **Mechanical Data**

Case: Molded plastic
 Lead: Solder plated
 Polarity: As marked
 Weight: 1.10 grams

### 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	2W 005M	2W 01M	2W 02M	2W 04M	2W 06M	2W 08M	2W 10M	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	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 <sub>(AV)</sub>	2.0							Α
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	50							Α
Maximum Instantaneous Forward Voltage @ 2.0A	$V_{F}$	1.1							V
Maximum DC Reverse Current @ T <sub>A</sub> =25°C	I <sub>R</sub>				10				uA
at Rated DC Blocking Voltage @ T <sub>A</sub> =100℃					500				uA
Typical Thermal Resistance (Note)	$R\theta_{JA}$				40				<b>℃/W</b>
	$R\theta_{JL}$				15				
Operating Temperature Range	TJ	-55 to +125							${\mathbb C}$
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							${\mathbb C}$

Note: Thermal Resistance from Junction to Ambient and from Junction to Lead at 0.375" (9.5mm) Lead Length for P.C.B. Mounting.



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#### RATINGS AND CHARACTERISTIC CURVES (2W005M THRU 2W10M)

AVERAGE FORWARD CURRENT.

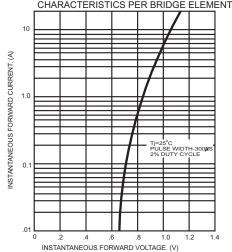
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FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT PEAK FORWARD SURGE CURRENT. (A) 8.3ms Single Half Sine Wave JEDEC Method 40 30 20 10 NUMBER OF CYCLES AT 60Hz

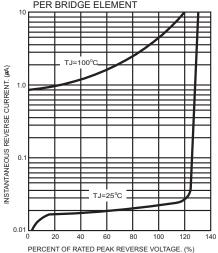
FIG.2- MAXIMUM CURRENT DERATING CURVE OUTPUT RECTIFIED CURRENT 2.0 3 RESISTIVE INDUCTIVE LOAD 1.5 1.0

AMBIENT TEMPERATURE. (°C)

FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT







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