TSC 9b

W005GM THRU W10GM

Single Phase 1.5 AMPS. Glass Passivated Bridge Rectifiers



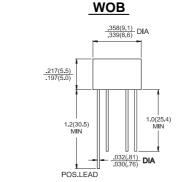
Voltage Range 50 to 1000 Volts Current 1.5 Amperes

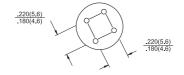
Features

- ♦ UL Recognized File # E-96005
- ♦ Glass passivated junction
- 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

Mechanical Data

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





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	W 005GM	W 01GM	W 02GM	W 04GM	W 06GM	W 08GM	W 10GM	Units		
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)	1.5							Α		
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	50							Α		
Maximum Instantaneous Forward Voltage @ 1.5A	V _F	1.0							>		
Maximum DC Reverse Current @ T_A =25 $^{\circ}$ C at Rated DC Blocking Voltage @ T_A =125 $^{\circ}$ C	1_	10							uA		
	I _R	500							uA		
Typical Thermal Resistance (Note)	$R\theta_{JA}$	36							C/W		
	$R\theta_{JL}$				13				5/44		
Operating Temperature Range	TJ	-55 to +150							Q		
Storage Temperature Range	T _{STG}	-55 to +150						μ			

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.



140

160

RATINGS AND CHARACTERISTIC CURVES (W005GM THRU W10GM)

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT PEAK FORWARD SURGE CURRENT. (A) 10 NUMBER OF CYCLES AT 60Hz

FIG.2- MAXIMUM FORWARD CURRENT DERATING **CURVE** € AVERAGE FORWARD CURRENT. 1.2 1.0 8.0 0.6 0.4 0 <u>L</u>

80

AMBIENT TEMPERATURE. (°C)

100

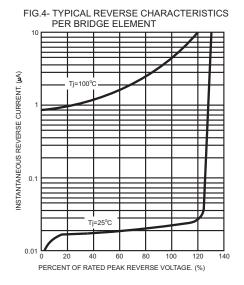
CHARACTERISTICS PER BRIDGE ELEMENT 10 € INSTANTANEOUS FORWARD CURRENT. Tj=25°C Pulse Width=300 µs 1% Duty Cycle

FORWARD VOLTAGE. (V)

1.0 1.2

0.01

FIG.3- TYPICAL INSTANTANEOUS FORWARD



60