

# DIC

## RECTIFIER SPECIALISTS

W005M  
THRU  
W10M

### TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 1.5 Amperes

#### FEATURES

- \* Surge overload ratings to 50 Amperes peak
- \* Good for printed circuit board assembly

#### MECHANICAL DATA

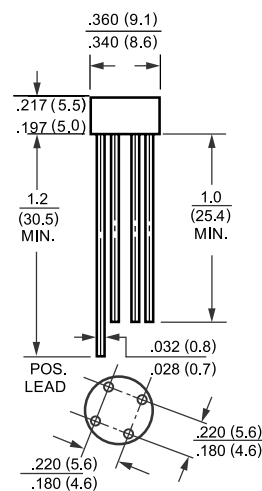
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 1.20 grams

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.



WOM



	SYMBOL	W005M	W01M	W02M	W04M	W06M	W08M	W10M	UNITS	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts	
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Output Current at TA = 25°C	I <sub>O</sub>	1.5							Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	50							Amps	
Maximum Forward Voltage Drop per element at 1.0A DC	V <sub>F</sub>	1.0							Volts	
Maximum Reverse Current at Rated DC Blocking Voltage per element	I <sub>R</sub>	@TA = 25°C	10							uAmps
		@TA = 100°C	500							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	10							A <sup>2</sup> Sec	
Typical Junction Capacitance ( Note1)	C <sub>J</sub>	24							pF	
Typical Thermal Resistance ( Note 2)	R <sub>θJA</sub>	36							°C/W	
Operating Temperature Range	T <sub>J</sub>	-55 to + 125							°C	
Storage Temperature Range	T <sub>STG</sub>	-55 to + 150							°C	

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts

2. Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13x13mm) copper pads.

# RATING AND CHARACTERISTIC CURVES (W005M THRU W10M)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

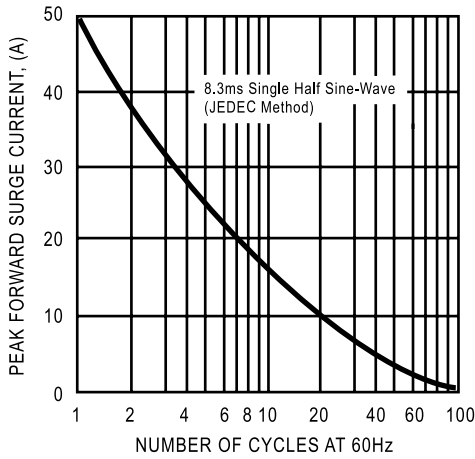


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

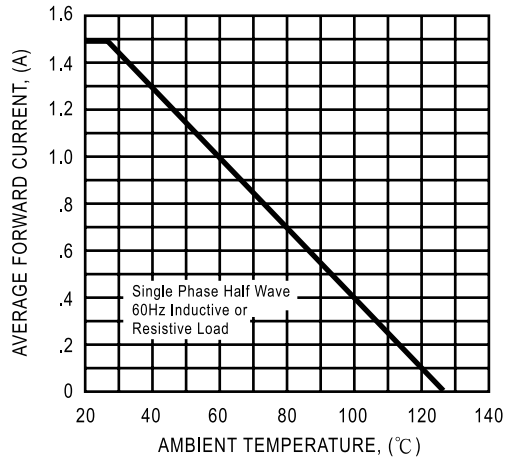


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

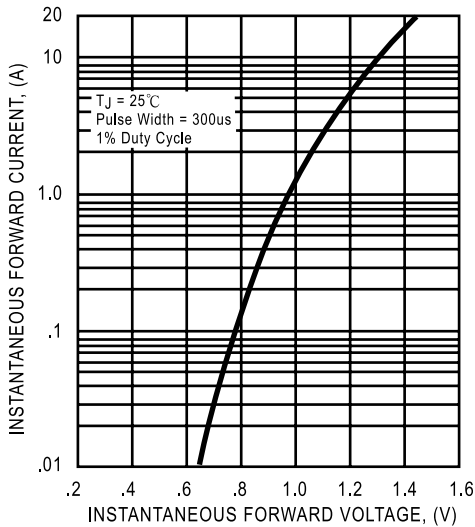


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

