

# 2W005 - 2W10

**PRV : 50 - 1000 Volts**

**I<sub>o</sub> : 2.0 Amperes**

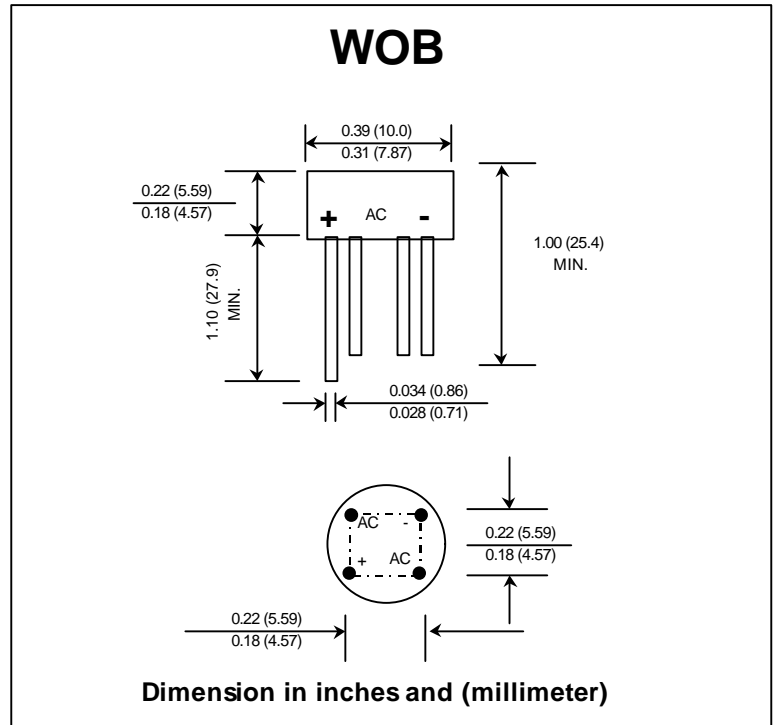
## FEATURES :

- \* High case dielectric strength
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Ideal for printed circuit board

## MECHANICAL DATA :

- \* Case : Reliable low cost construction utilizing molded plastic technique
- \* Epoxy : UL94V-O rate flame retardant
- \* Terminals : Plated leads solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Any
- \* Weight : 1.29 grams

# SILICON BRIDGE RECTIFIERS



## 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%.

RATING	SYMBOL	2W005	2W01	2W02	2W04	2W06	2W08	2W10	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS 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 Current 0.375" (9.5 mm) lead length T <sub>c</sub> = 25°C	I <sub>F(AV)</sub>	2.0							Amps.
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	50							Amps.
Rating for fusing (t < 8.3 ms.)	I <sup>2</sup> t	10							A <sup>2</sup> S
Maximum Forward Voltage per Diode at I <sub>F</sub> = 1.0 Amp.	V <sub>F</sub>	1.0							Volts
Maximum DC Reverse Current T <sub>a</sub> = 25 °C at Rated DC Blocking Voltage T <sub>a</sub> = 100 °C	I <sub>R</sub>	10							μA
	I <sub>R(H)</sub>	1.0							mA
Typical Junction Capacitance per Diode (Note 1)	C <sub>J</sub>	24							pf
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	36							°C/W
Operating Junction Temperature Range	T <sub>J</sub>	- 50 to + 150							°C
Storage Temperature Range	T <sub>STG</sub>	- 50 to + 150							°C

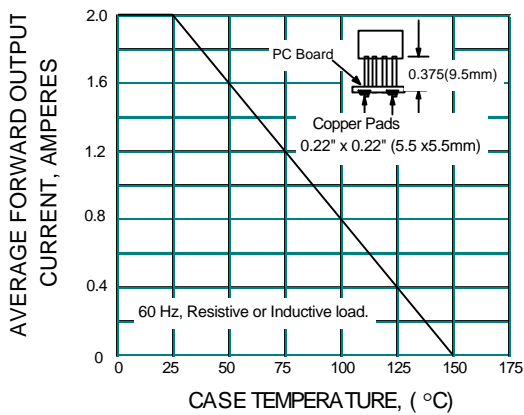
### Notes :

- 1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
- 2) Thermal resistance from Junction to Ambient at 0.375" (9.5 mm) lead length P.C. Board with 0.22" x 0.22" (5.5 x 5.5 mm) copper Pads.

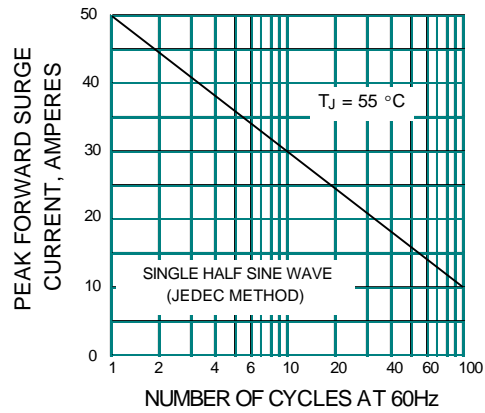
**UPDATE : APRIL 23,1998**

## RATING AND CHARACTERISTIC CURVES ( 2W005 - 2W10 )

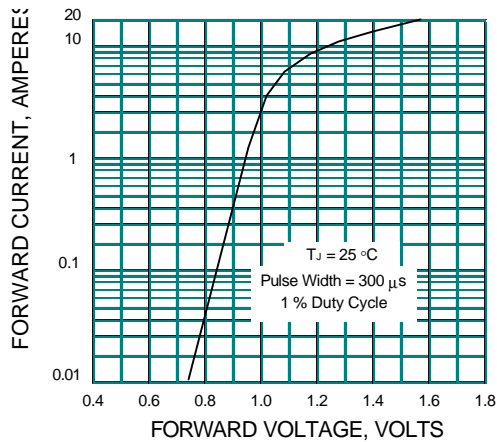
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

