DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

W005M THRU W10M

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts *CURRENT - 1.5 Amperes*

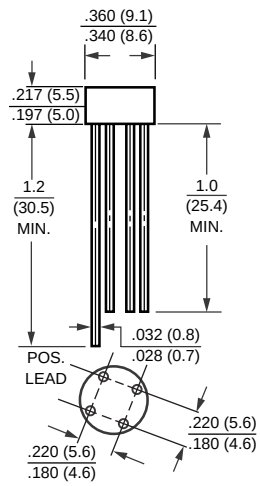
FEATURES

* 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
* Terminals: MIL-STD-202E, Method 208 guaranteed
* Polarity: As marked
* Mounting position: Any
* Weight: 1.20 grams

WOM



Dimensions in inches and (millimeters)

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%.

		SYMBOL	W005M	W01M	W02M	W04M	W06M	W08M	W10M	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input 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 Output Current at T_A = 25°C		I_O	1.5							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	50							Amps
Maximum DC Forward Voltage Drop per Element at 1.0A DC		V_F	1.1							Volts
Maximum Reverse Current at rated DC Blocking Voltage per element	@T_A = 25°C	I_R	10							µAmps
	@T_A = 125°C		500							
I^2t Rating for Fusing (t = 8.3ms)		I^2t	10							A^2Sec
Typical Junction Capacitance (Note 1)		C_J	24							pF
Typical Thermal Resistance (Note 2)		RθJA	36							°C/W
Operating Temperature Range		T_J	-50 to + 125							°C
Storage Temperature Range		T_{STG}	-50 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

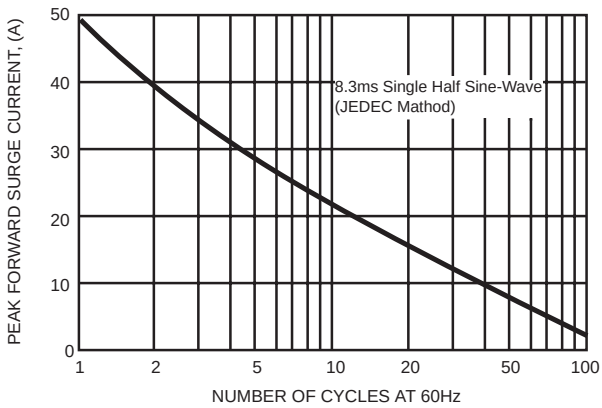


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

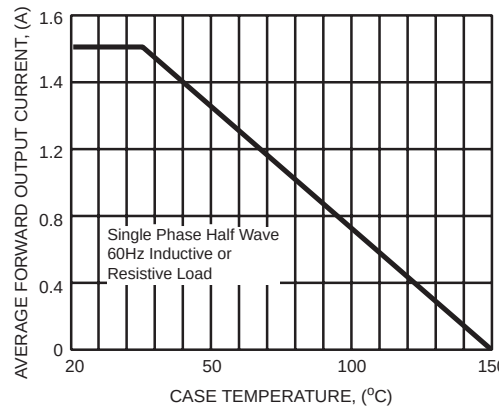


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

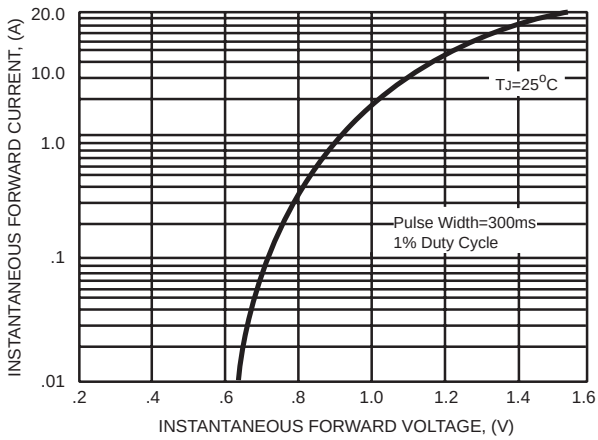


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS