



MASTER INSTRUMENT CORPORATION

SINGLE-PHASE BRIDGE RECTIFIER W005MF THRU W10MF

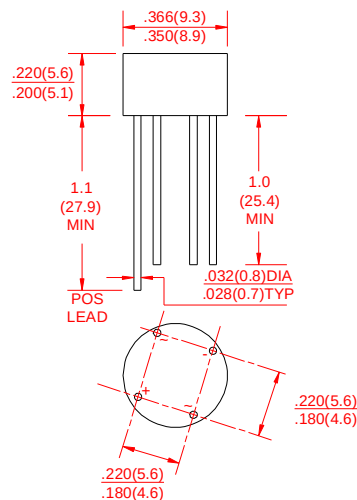
VOLTAGE RANGE 50 to 1000 Volts
CURRENT 1.5 Amperes

FEATURES

- Low cost
- This series is UL recognized under component index, file number E127707
- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed: 260°C/10 second, at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case: Molded plastic body
- Terminal: Lead solderable per MIL-STD-202E method 208C.
- Polarity: Polarity symbols molded on case
- Mounting position: Any
- Weight: 0.042ounce, 1.2grams



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load derate current by 20%.

	SYMBOLS	W005MF	W01MF	W02MF	W04MF	W06MF	W08MF	W10MF	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS 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 Rectified Output Current, at T _A =25℃(Note1)	I _(AV)	1.5							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50							Amps
Ratings for Fusing (t<8.3ms)	I ² T	10							A ² S
Maximum Instantaneous Forward Voltage at 1.0A	V _F	1.3							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	T _A =25℃	I _R	5.0			10			μAmps
	T _A =100℃		0.5						mAmps
Typical Junction Capacitance(Note2)	C _J	25							p ^F
Maximum reverse recovery time (Note 3) T _J =25℃	T _{RR}	150				250	500		nS
Operating Temperature Range	T _J	-55 to +150							℃
Storage Temperature Range	T _{STG}	-55 to +150							℃
NOTES: 1. Unit mounted on P.C. board with 0.22”×0.22”(5.5×5.5mm)copper pads,0.375”(9.5mm)lead length. 2. Measured at 1.0MHz and applied reverse voltage of 4.0 volts. 3. Reverse recovery test conditions: I _F =0.5A, I _R =1.0A, I _{RR} =0.25A									



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RATINGS AND CHARACTERISTIC CURVES W005MF THRU W10MF

FIG.1-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

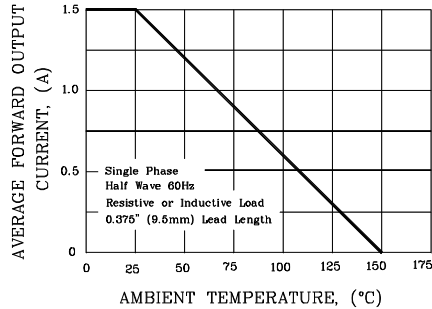


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

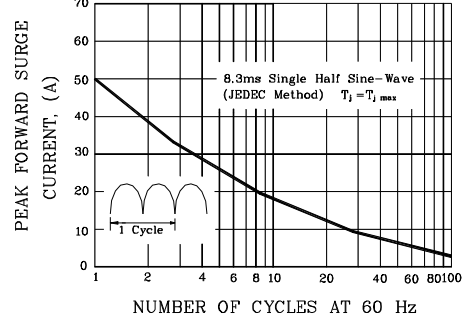


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

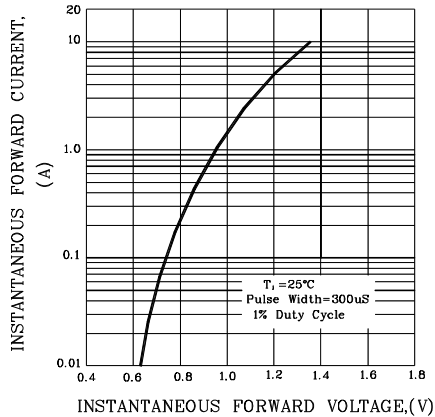


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

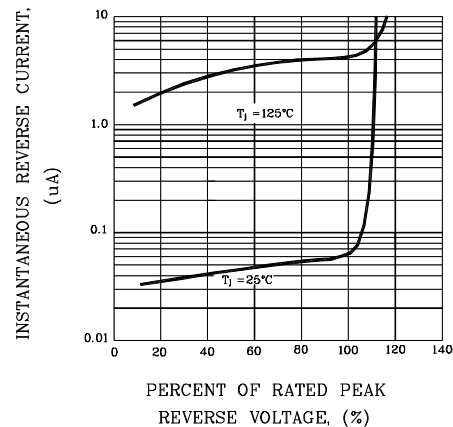


FIG.5-TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT

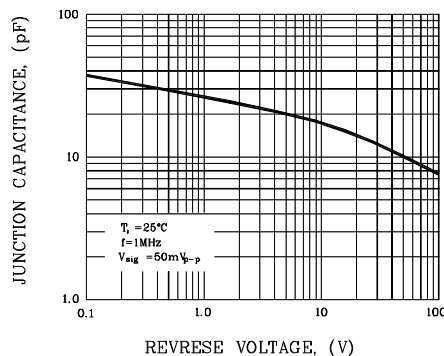
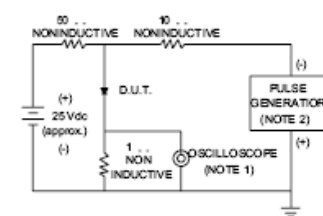


FIG.6-TEST CIRCUIT DIAGRAM AND
REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm, 22pF
2. Rise time = 10ns max. Source Impedance = 50 ohms

