



# SINGLE PHASE FAST RECOVERY BRIDGE RECTIFIER

## W005MF THRU W10MF

VOLTAGE RANGE  
CURRENT

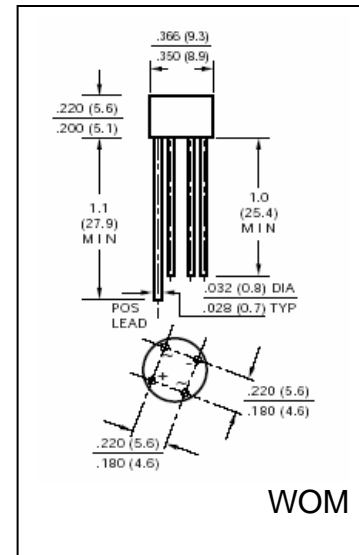
50 to 1000 Volts  
2.0 Ampere

### FEATURES

- Plastic package has UL flammability Classification 94V-0
- This series UL recognized
- High Surge current capability
- High temperature soldering guaranteed: 260°C / 10 seconds

### MECHANICAL DATA

- Case: Molded plastic body
- Terminal: Plated leads solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.042 ounce, 1.2 gram



### 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	UNIT
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 Current, At $T_C = 25^\circ C$ (Note 1)	$I_{(AV)}$	2							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50							Amps
Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	10							$A^2s$
Maximum Instantaneous Forward Voltage per element at 1.0A	$V_F$	1.2				1.3			Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element $T_A = 25^\circ C$	$I_R$	5				10			$\mu A$
$T_A = 100^\circ C$		500							
Maximum Reverse Recovery Time Test conditions $I_F = 0.5A$ , $I_R = 1.0A$ , $I_{RR} = 0.25A$	$t_{rr}$	150				250	500		nS
Typical Junction Capacitance, per leg (Measured at 1.0MHz and applied reverse voltage of 4.0V)	$C_J$	25							pF
Typical Thermal Resistance per leg (Note 1)	$R_{\theta JA}$	40							$^\circ C/W$
Operating Junction Temperature Range	$T_J$	(-55 to +125)							$^\circ C$
Storage Temperature Range	$T_{STG}$	(-55 to +150)							$^\circ C$

### Notes:

1. Mounted on PCB with 0.22" x 0.22" (5.5mm x 5.5mm) copper pads and 0.375" (9.5mm lead length)



# RATINGS AND CHARACTERISTIC CURVES W005MF THRU W10MF

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

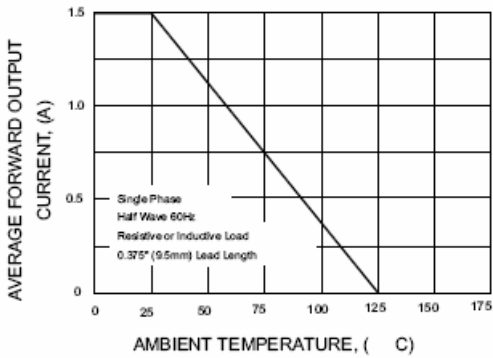


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

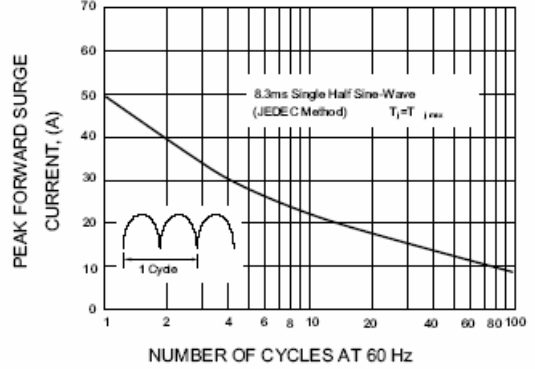


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

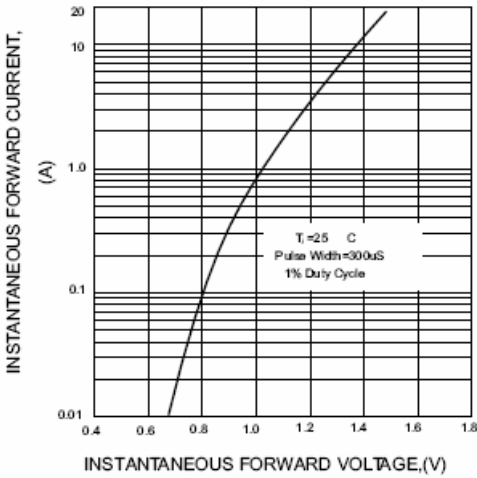


FIG.4-TYPICAL REVERSE CHARACTERISTICS

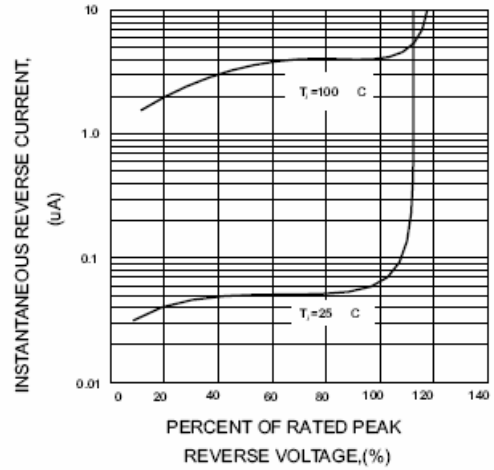


FIG.5-TYPICAL JUNCTION CAPACITANCE

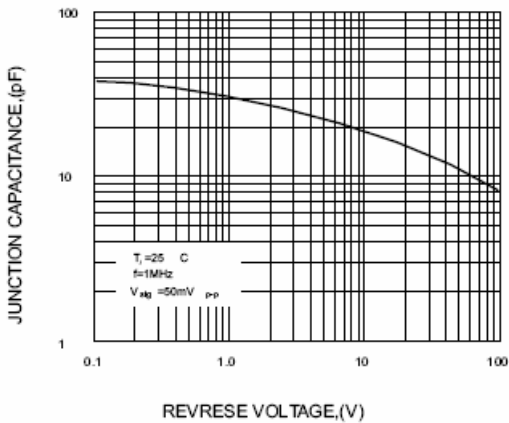
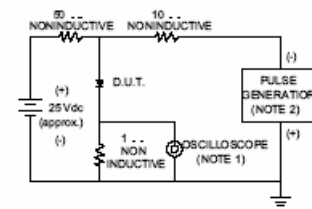


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

