

SINGLE-PHASE BRIDGE RECTIFIER

W005M THRU W10M

VOLTAGE RANGE CURRENT 50 **to** 1000 **Volts** 1.5 **Ampere**

FEATURES

- · Low cost
- This series is UL recognized under component index, file number E127707
- · High forward surge current capability
- · Ideal for printed circult board
- High temperature soldering guaranteed: 260°C/10 second, 0.375" (9.5mm) lead length at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

· Case: Molded Plastic body

 Terminal: Lead solderable per MIL - STD - 202E method 208C

· Polarity: Polarity symbors marked on case

• Mounting position : Any

• Weight: 0.042 ounce, 1.2 gram

← B → .032(0.8)DIA .028(0.7)TYP LEAD 180(4.6) A **RB-15 RB-15** .157 (4.0) .350 (8.9) .220 (5.6) WOM WOM .200 (5.1) .290 (7.4) .350 (8.9) .366 (9.3) RC-2 BC-2 .350 (8.9)

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	W005M	W01M	W02M	W04M	W06M	W08M	W10M	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 Output Current, at $T_A = 25^{\circ}\mathbb{C}$ (Note 2)	I _(AV)	1.5							Amp
Peak Forward Surge Current									
8.3ms single half sine - wave superimposed on	I_{FSM} 50								Amps
rated load (JEDEC method)									
Rating for Fusing (t<8.3ms)	I^2t	10						A^2s	
Maximum Instantaneous Forward Voltage Drop per bridge element at 1.0A	V_{F}	1.0						Volts	
Maximum DC Reverse Current at rated $T_A = 25^{\circ}C$	I_R	10							μ A
DC blocking voltage per element $T_A = 100^{\circ}C$	1 _R	0.5							mA
Typical Junction Capacitance (Note 1)	C_{j}	15						pF	
Typical Thermal Resistance (Note 2)	$R_{ heta JA}$	40					•	$^{\circ}$ C/W	
Operating Temperature Range	T_{J}	(-55 to +125)						$^{\circ}\mathbb{C}$	
Storage Temperature Range	T_{STG}	(-55 to +150)							

NOTES:

- 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
- $2.\ Unit\ mounted\ on\ P.C.\ board\ with\ 0.22"\ X\ 0.22"\ (5.5\ X5.5\ mm)\ copper\ pads,.\ 375"\ (9.5mm)\ lead\ length.$

RATINGS AND CHARACTERISTIC CURVES W005M THRU W10M

FIG.1-DERATING CURVE FOR

OUTPUT RECTIFIED CURRENT

1.5

OR BENT

OUTPUT RECTIFIED CURRENT

1.5

Single Phase
Half Wave 60Hz
Resistive or Inductive Load
0.375 (9.5mm) Lead Length
0 25 50 75 100 125 150 175

AMBIENT TEMPERATURE, (C)

FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

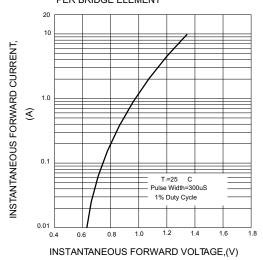


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

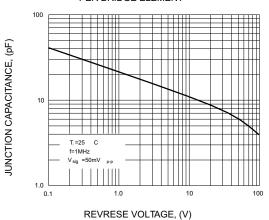


FIG.2-MAXIMUM NON-REPETITIVE PEAK

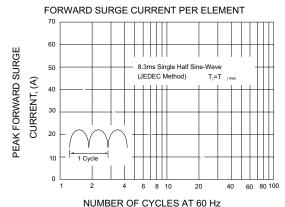
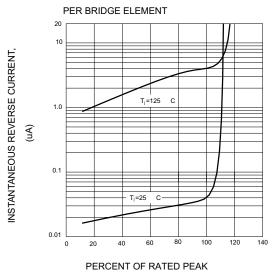


FIG.4-TYPICAL REVERSE CHARACTERISTICS



REVERSE VOLTAGE, (%)