



MASTER INSTRUMENT CORPORATION

SINGLE-PHASE BRIDGE RECTIFIER
MB2505W THRU MB2510W
KBPC25005W THRU KBPC2510W

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 25 Amperes

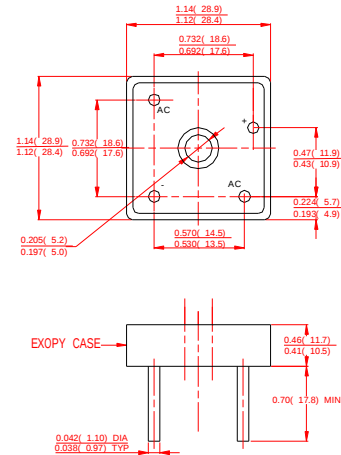
FEATURES

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

MECHANICAL DATA

- ┆ Case: Molded plastic body
- ┆ Terminal: Plated 0.25" (6.35mm) lug.
- ┆ Polarity: Polarity symbols marked on case
- ┆ Mounting: Thru hole for #10 screw, 20 in.-lbs torque max.
- ┆ Weight: 0.93 ounce, 26.4 grams

MB-35W



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	MB2505 KBPC25005	MB251 KBPC2501	MB25W KBPC2502	MB254 KBPC2504	MB256 KBPC2506	MB258 KBPC2508	MB2510 KBPC2510	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 _C =55°C (Note1,2)	I _(AV)	25							Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	300							Amps	
Rating for Fusing(t<8.3ms)	I ² T	373							A ² S	
Maximum Instantaneous Forward Voltage at 5.0A	V _F	1.1							Volts	
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25°C	I _R	10							μAmps
	T _A =100°C		1.0							mAmps
Isolation Voltage from case to lugs	V _{ISO}	2500							V _{AC}	
Typical Thermal Resistance (Note 1,2)	R _{θJC}	2.0							°C/W	
Operating Temperature Range	T _J	-55 to +150							°C	
Storage Temperature Range	T _{STG}	-55 to +150							°C	
NOTES:										
1. Unit mounted on 5”×6”×4.9”(12.8×15.2×12.4mm) Al. finned plate.										
2. Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw.										
3. Suffix “W” designates Wire Lead										



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RATINGS AND CHARACTERISTIC CURVES MB2505W THRU MB2510W

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

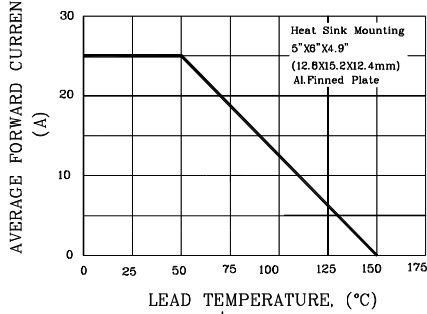


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

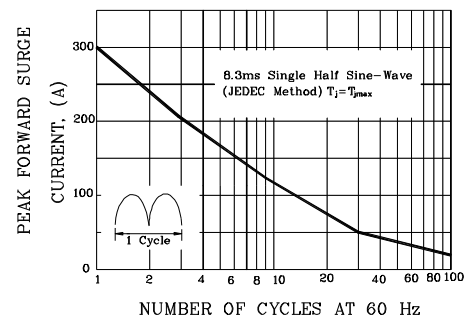


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

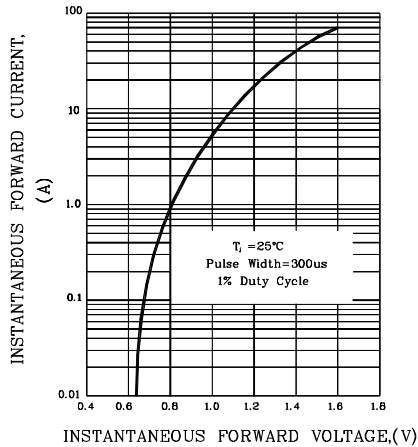


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

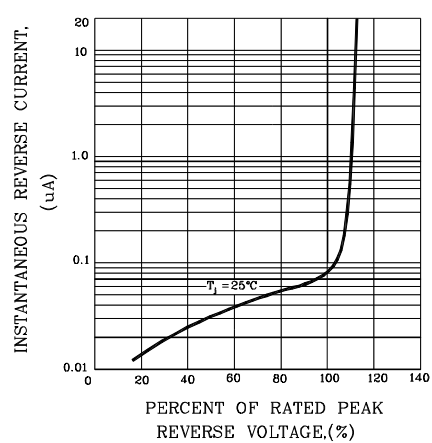


FIG.5-TYPICAL JUNCTION CAPACITANCE

