



VOLTAGE RANGE 50 to 1000 Volts
CURRENT 35 Amperes

- | 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.

- ! 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

FIG. 1-TYPICAL FORWARD CURRENT
MAXIMUM POWER
 100 W
 50 W
 0 W
 0 10 20 30 40 50 60 70 80 90 100
 CASE TEMPERATURE (°C)
 100 W
 50 W
 0 W
 0 10 20 30 40 50 60 70 80 90 100
 CASE TEMPERATURE (°C)
 100 W
 50 W
 0 W
 0 10 20 30 40 50 60 70 80 90 100
 CASE TEMPERATURE (°C)

FIG. 2-TYPICAL UNSWITCHED FORWARD CHARACTERISTICS
 100 W
 50 W
 0 W
 0 10 20 30 40 50 60 70 80 90 100
 CASE TEMPERATURE (°C)
 100 W
 50 W
 0 W
 0 10 20 30 40 50 60 70 80 90 100
 CASE TEMPERATURE (°C)

FIG. 3-TYPICAL SWITCHING CHARACTERISTICS
 100 W
 50 W
 0 W
 0 10 20 30 40 50 60 70 80 90 100
 CASE TEMPERATURE (°C)
 100 W
 50 W
 0 W
 0 10 20 30 40 50 60 70 80 90 100
 CASE TEMPERATURE (°C)

FIG. 4-TYPICAL REVERSE CHARACTERISTICS
 100 W
 50 W
 0 W
 0 10 20 30 40 50 60 70 80 90 100
 CASE TEMPERATURE (°C)
 100 W
 50 W
 0 W
 0 10 20 30 40 50 60 70 80 90 100
 CASE TEMPERATURE (°C)

FIG. 5-TYPICAL AC CHARACTERISTICS
 100 W
 50 W
 0 W
 0 10 20 30 40 50 60 70 80 90 100
 CASE TEMPERATURE (°C)
 100 W
 50 W
 0 W
 0 10 20 30 40 50 60 70 80 90 100
 CASE TEMPERATURE (°C)

Dimensions in inches and (millimeters)

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℃(Note1,2)	I _(AV)	35							Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	400							Amps	
Rating for Fusing(t<8.3ms)	I ² T	664							A ² S	
Maximum Instantaneous Forward Voltage at 17.5A	V _F	1.1							Volts	
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25℃	I _R	10							μAmps
	T _A =100℃		1.0							mAmps
Isolation Voltage from case to lugs	V _{ISO}	2500							V _{AC}	
Typical Thermal Resistance (Note 1,2)	R _{θJC}	2.0							℃/W	
Operating Temperature Range	T _J	-55 to +150							℃	
Storage Temperature Range	T _{STG}	-55 to +150							℃	

3. Suffix “W” designates Wire Lead



MASTER INSTRUMENT CORPORATION

SINGLE-PHASE BRIDGE RECTIFIER
MB3505W THRU MB3510W
KBPC35005W THRU KBPC3510W

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 35 Amperes

RATINGS AND CHARACTERISTIC CURVES MB3505W THRU MB3510W

FIG.1-TYPICAL FORWARD CURRENT

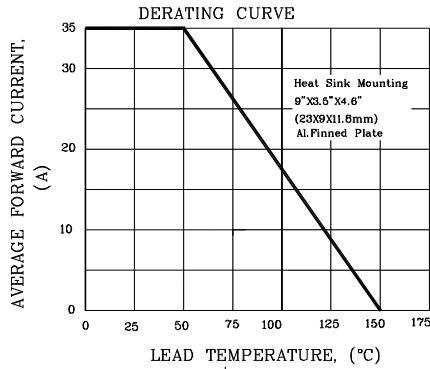


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

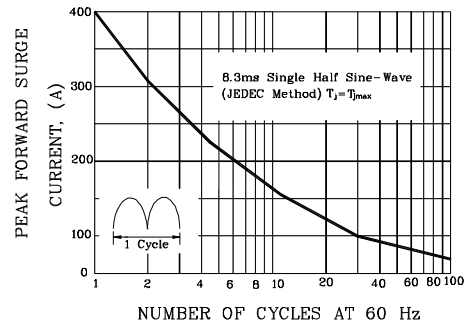


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

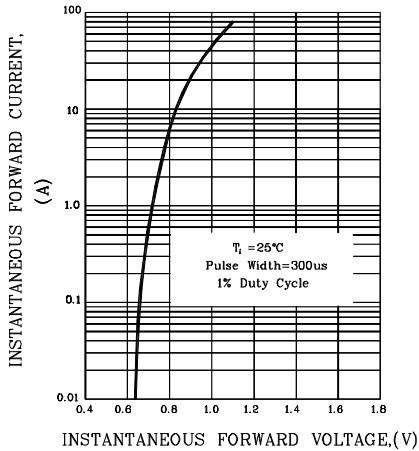


FIG.4-TYPICAL REVERSE CHARACTERISTICS

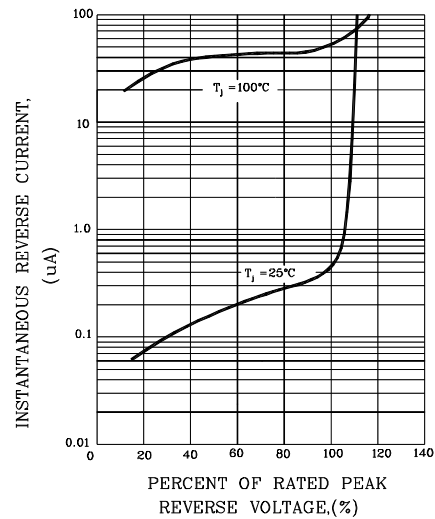


FIG.5-TYPICAL JUNCTION CAPACITANCE

