

# KBPC35005 THRU KBPC3510 AND MB3505 THRU MB3510

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

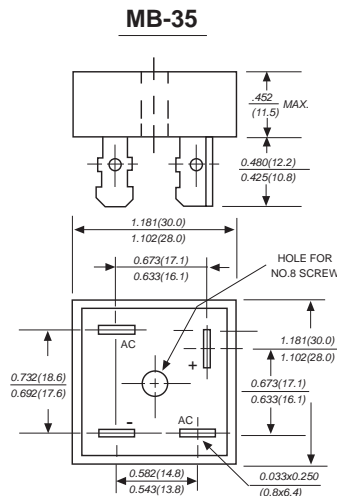
35.0 Ampere

## FEATURES

- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0
- Ideal for printed circuit boards
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C/10 seconds, at 5 lbs. (2.3kg) tension

## MECHANICAL DATA

- Case: Metal case
- Terminals : Plated 0.25" (6.35mm) lug.
- Polarity : Polarity symbols marked on case
- Mounting : Thru hole for #8 screw, 20in.-lbs. torque max.
- Weight : 1.02 ounce, 29 grams



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 current capacitive load current derate by 20%.

	SYMBOLS	KBPC 35005 MB3505	KBPC 3501 MB351	KBPC 3502 MB352	KBPC 3504 MB354	KBPC 3506 MB356	KBPC 3508 MB358	KBPC 3510 MB3510	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 output rectified current at $T_c=50^\circ\text{C}$ (Note 1,2)	$I_{(AV)}$	35							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	400.0							Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	664							$\text{A}^2\text{s}$
Maximum instantaneous forward voltage drop per bridge element at 17.5A	$V_F$	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	$I_R$	10							$\mu\text{A}$
		1.0							mA
Isolation voltage from case to leads	$V_{ISO}$	2500							$V_{AC}$
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	2.0							$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-65 to +150							$^\circ\text{C}$
storage temperature range	$T_{STG}$	-65 to +150							$^\circ\text{C}$

### NOTES:

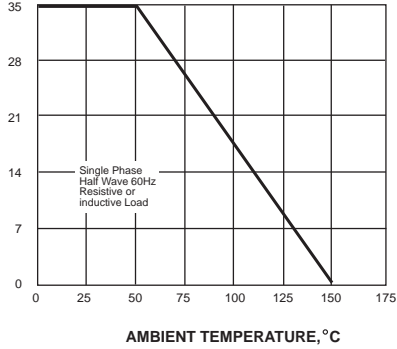
1. Unit mounted on 9" x 3.5" x 4.6" thick (23cm x 9cm x 11.8cm) Al. plate.
2. Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #8 screw.

### KBPC35005 THRU KBPC3510 AND MB3505 THRU MB3510

**VOLTAGE RANGE**      50 to 1000 Volts  
**CURRENT**              35.0 Ampere

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT, AMPERES

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

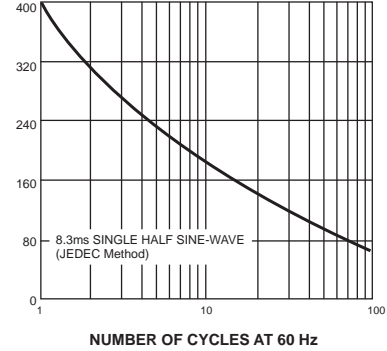
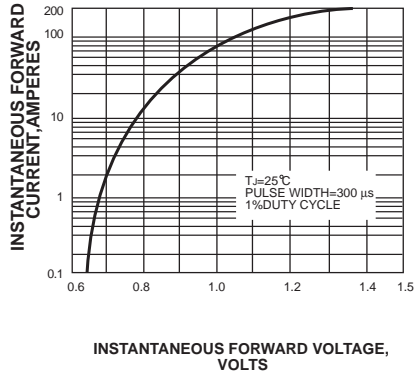


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

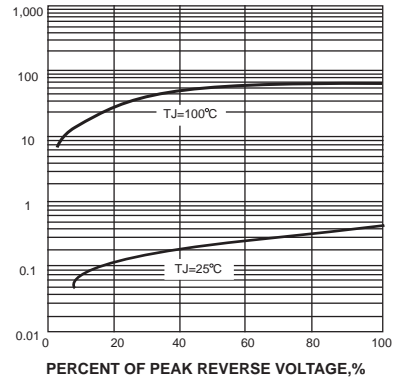
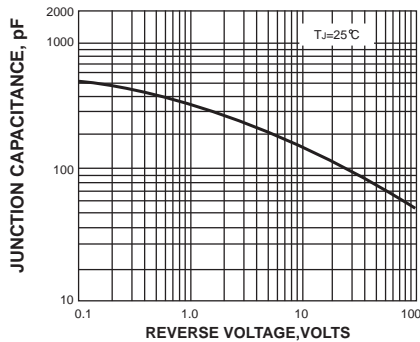


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

