



SINGLE-PHASE BRIDGE RECTIFIER

KBPC35005 THRU KBPC3510	MB3505 THRU MB3510
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FEATURES

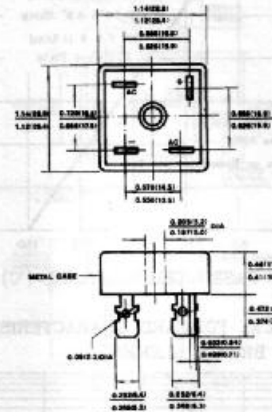
- Low cost
- This series is UL recognized under component index, file number E127707
- High forward surge current capability
- Low thermal resistance
- High isolation voltage from case to lugs.
- High temperature soldering guaranteed; 260°C/10 seconds, at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case; Metal case
- Terminal; Pletod 0.25" (6.35mm) lug.
- Polarity; Polarity symbols marked on case
- Mounting; Thru hole for #10 screw, 20 in. -lbs. torque max.
- Weight; 1.02 ounce, 29 grams

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 35 Amperes

MB-35



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	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 Rectified Output 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							Amps	
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	664							A^2s	
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 per element	$T_A=25^\circ\text{C}$	10							I_R	μAmps
	$T_A=100^\circ\text{C}$								1.0	
Isolation Voltage from case to lugs.	V_{ISO}	2500							V_{AC}	
Typical Thermal Resistance (Note 1,2).	$R_{\theta JC}$	2.0							$^\circ\text{C}/\text{W}$	
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150							$^\circ\text{C}$	

NOTES:

1. Unit mounted on 9" x 3.5" x 4.6" (23cm x 9cm x 11.8cm) 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.

RATINGS AND CHARACTERISTIC CURVES **KBPC35005** THRU **KBPC3510**
MB3505 THRU **MB3510**

FIG.1-DERATING CURVE FOR
 OUTPUT RECTIFIED CURRENT

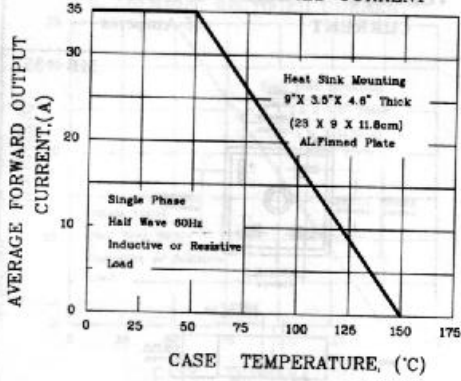


FIG.2-MAXIMUM NON-REPETITIVE PEAK
 FORWARD SURGE CURRENT PER ELEMENT

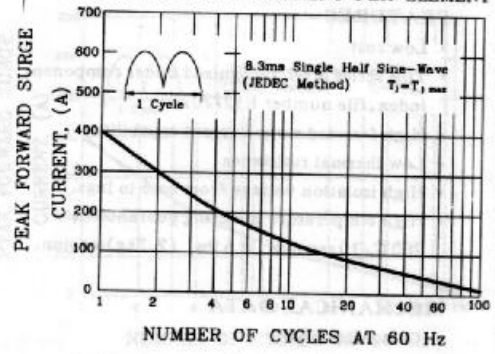


FIG.3-TYPICAL FORWARD CHARACTERISTICS
 PER BRIDGE ELEMENT

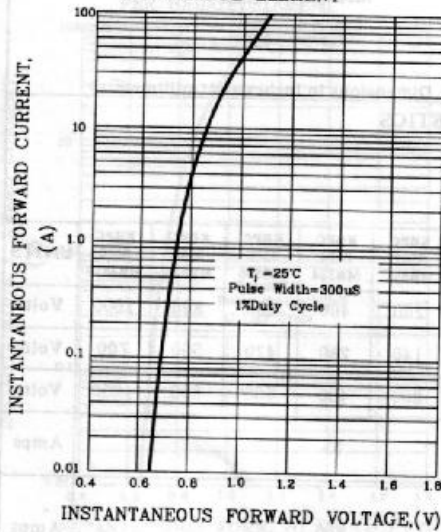


FIG.4-TYPICAL REVERSE CHARACTERISTICS
 PER BRIDGE ELEMENT

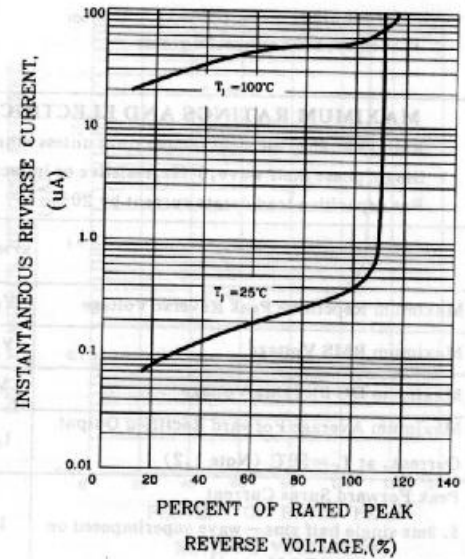


FIG.5-TYPICAL JUNCTION CAPACITANCE
 PER BRIDGE ELEMENT

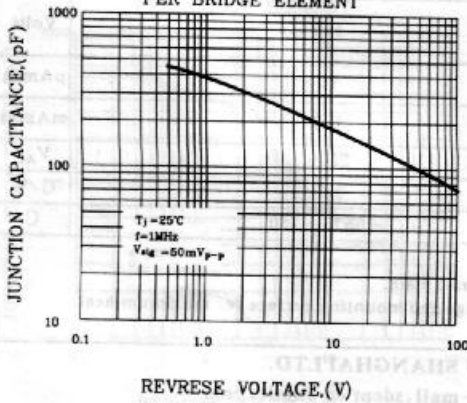


FIG.6-MAXIMUM POWER DISSIPATION

