

SINGLE-PHASE BRIDGE RECTIFIER

KBPC25005
THRU
KBPC2510

MB2505
THRU
MB2510

FEATURES

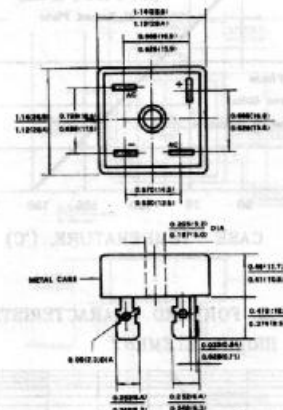
- Low cost
- This series is UL recognized under component index, file number E127707
- High forward surge current capability
- Low thermal resistance.
- High isolation voltage from case to lugs.
- High temperature soldering guaranteed; 260°C/10 seconds, at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case; Metal case
- Terminal; Plated 0.25" (6.35mm) lug.
- Polarity; Polarity symbols marked on case
- Mounting; Thru hole for #10 screw, 20 in. -16. torque max.
- Weight; 1.02 ounce, 29 grams

VOLTAGE RANGE	50 to 1000 Volts
CURRENT	25 Amperes

MB-25



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	KBPC 25005 MB2505	KBPC 2501 MB251	KBPC 2502 MB252	KBPC 2504 MB254	KBPC 2506 MB256	KBPC 2508 MB258	KBPC 2510 MB2510	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°C (Note 1,2)		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 Drop per bridge element at 12.5A		V _F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	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 and Storage Temperature Range		T _J , T _{STG}	-65 to +150							°C

NOTES:

- Unit mounted on 5" × 6" × 4.9" (12.8cm × 15.2cm × 12.4cm) Al. finned plate.
- 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 KBPC25005 THRU KBPC2510 MB2505 MB2510

FIG.1-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

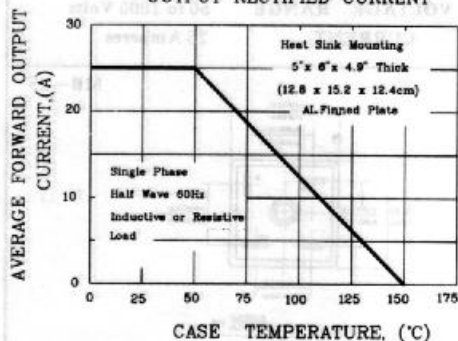


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

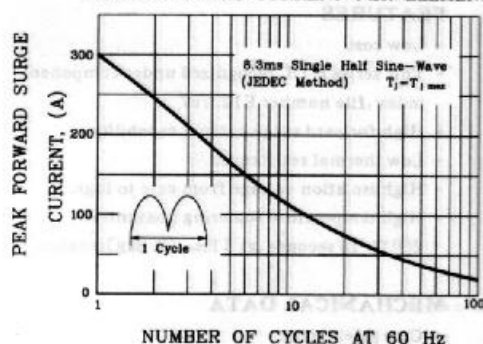


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

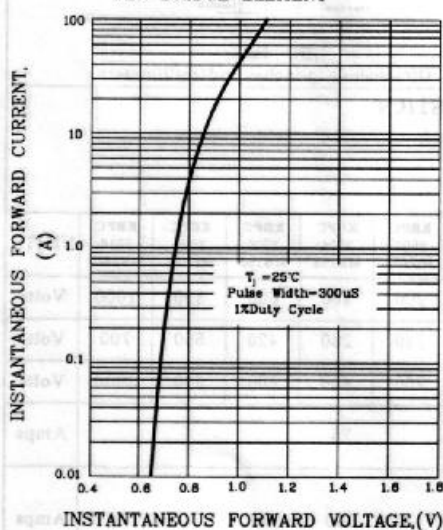


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

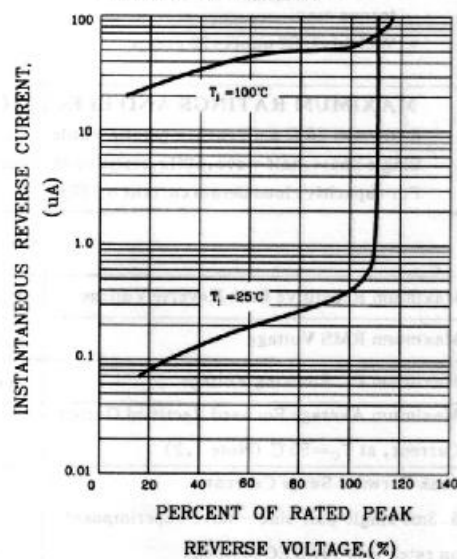


FIG.5-TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT

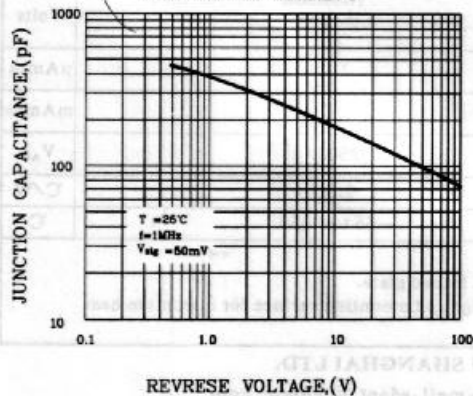


FIG.6-MAXIMUM POWER DISSIPATION

