

SINGLE-PHASE BRIDGE RECTIFIER

KBPC50005 THRU KBPC5010 (MB5005 THRU MB5010)

FEATURES

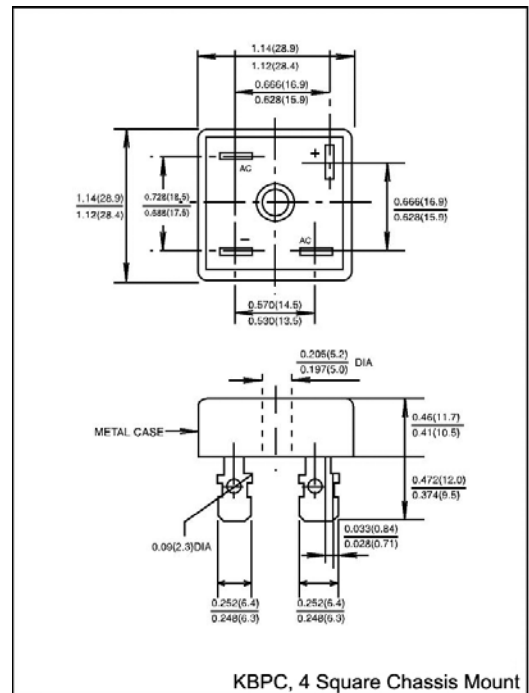
- Low cost
- High forward surge current capability low thermal resistance.
- High isolation voltage from case to lugs.
- High temperature soldering guaranteed:
260°C/10 second, at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case: Molded 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: 0.84ounce, 24gram

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 50005	KBPC 5001	KBPC 5002	KBPC 5004	KBPC 5006	KBPC 5008	KBPC 5010	UNIT
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 $T_C = 50^\circ C$ (Note1, 2)	$I_{(AV)}$	50							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^2t	664							A^2s
Maximum Instantaneous Forward Voltage Drop per bridge element at 25A	V_F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	$T_A = 25^\circ C$	10							μ Amp
	$T_A = 100^\circ C$	1.0							mAmp
Isolation Voltage from case to lugs	V_{ISO}	2500							V_{AC}
Typical Thermal Resistance (Note 1, 2)	R_{JC}	2.0							$^\circ C/W$
Operating Temperature Range	T_J	(-65 to +150)							$^\circ C$
Storage Temperature Range	T_{STG}	(-65 to +150)							

1. Unit Mounted on 9" X 3.5" X 4.6" (23 X 9 X 11.8cm) Al. finned plate.

2. Bolt down on heatsink with silicon thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw.