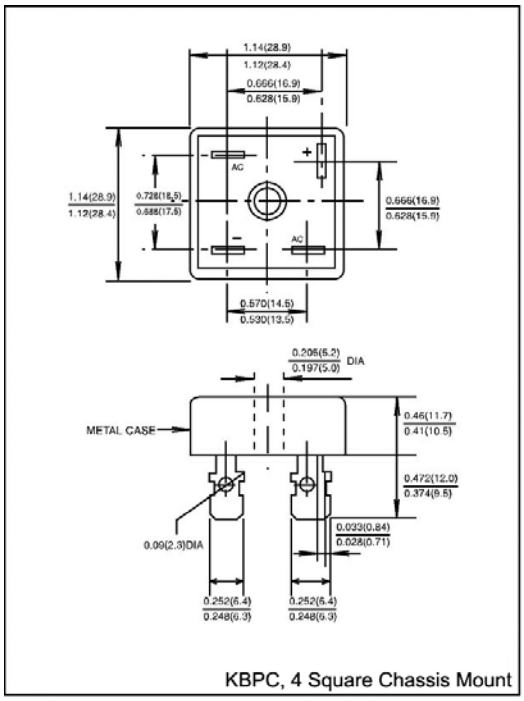
SINGLE-PHASE BRIDGE RECTIFIER

KBPC25005 THRU KBPC2510 **VOLTAGE RANGE** 50 **to** 1000 **Volts**

MB2505 THRU MB2510 **CURRENT** 25 **Ampere**

FEATURES

- Low cost
- This series is UL recognized
- High forward surge current capability
- Low thermal resistance.
- High isolation voltage from case to lugs.
- High temperature soldering guaranteed:
  260℃/10 second, at 5 lbs. (2.3kg) tension.



KBPC, 4 Square Chassis Mount

MECHANICAL DATA

- Case: Matel case.
- Terminal: Plated 0.25" (6.35mm) lug.
- Polarity: Polarity symbols marked on case.
- Mounting: Thru hole for #10 screw, 20 in,- lbs. Torqute Max.
- Weight:1.02 ounce, 29gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25℃ ambient temperature unless otherwise specified
- Single phase, half wave, 60Hz, resistive or inductive load.
- For capacitive load derate current by 20%

	SYMBOLS	KBPC 2505 / MB2505	KBPC 2501 / MB251	KBPC 2502 / MB252	KBPC 2504 / MB254	KBPC 2506 / MB256	KBPC 2508 / MB258	KBPC 2510 / MB2510	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℃ (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^2t	373							A^2s
Maximum Instantaneous Forward Voltage Drop per bridge element at 12.5A	V_F	1.1							Volts
Maximum DC Reverse Current at rate DC blocking voltage per element T_A = 25℃	I_R	10							μA
Maximum DC Reverse Current at rate DC blocking voltage per element T_A = 100℃	I_R	1.0							mA
Isolation Voltage from case to lugs	V_{ISO}	2500							V_{AC}
Typical Thermal Resistance (Note 1,2)	$R_{\theta JC}$	2.0							℃/W
Operating Temperature Range	T_J	(-65 to +150)							℃
Storage Temperature Range	T_{STG}	(-65 to +150)							℃

1. Unit mounted on 5" X 6" X 4.9" (12.8cm X 15.2cm X 12.4cm)Al. finned Plate.
2. Bolt down on heat-sink with silicon thermal compound between bridge and mounting sutfae for maximum heat transfer efficiency with # 10 screw.

MEI

Lead Free RoHS Compliant

RATINGS AND CHARACTERISTIC CURVES

KBPC25005 THRU MB2505

KBPC2510 MB2510

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

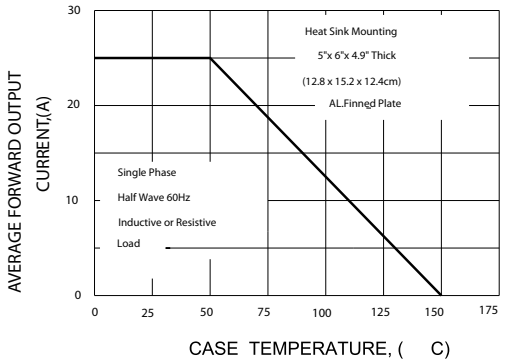


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

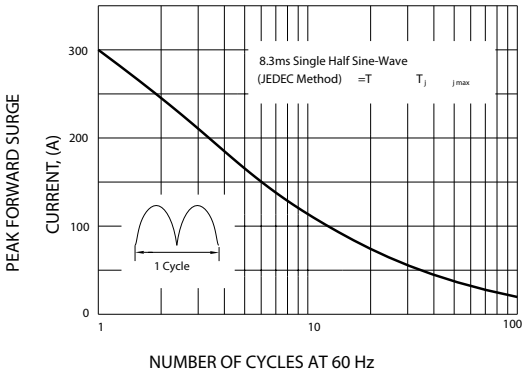


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

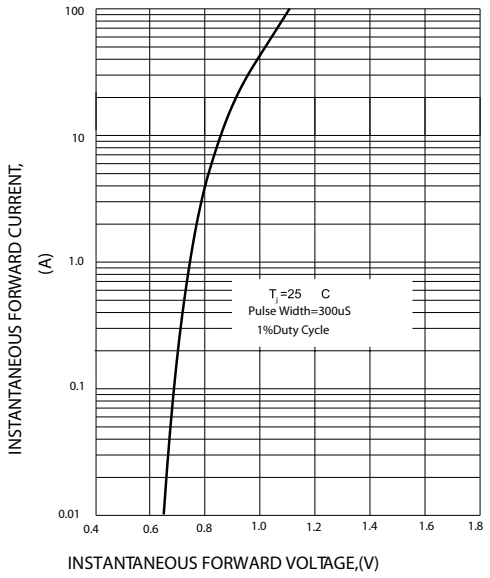


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

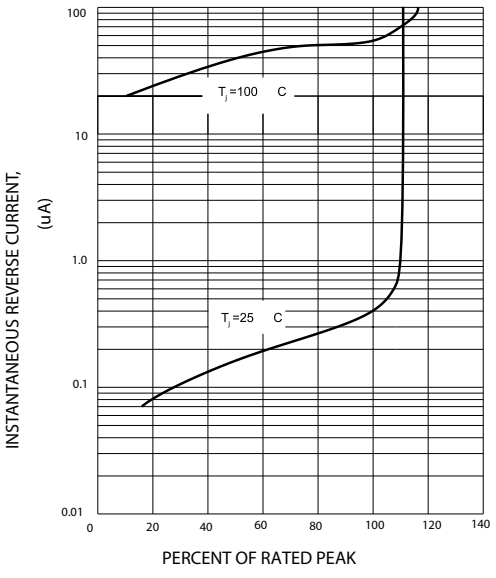


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

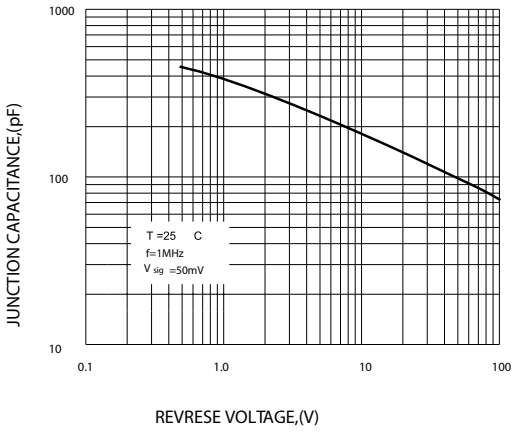


FIG.6-MAXIMUM POWER DISSIPATION