SILICON BRIDGE RECTIFIERS

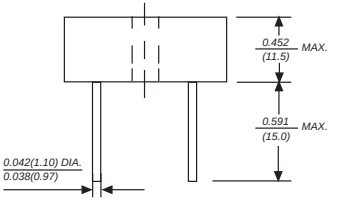
KBPC25005W THRU KBPC2510W AND MB2505W THRU MB2510W

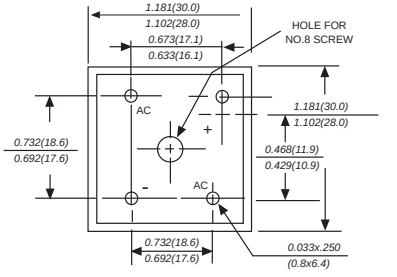
VOLTAGE RANGE 50 to1000 Volts
CURRENT 25.0 Ampere

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℃/10 seconds,at 5 lbs. (2.3kg) tension

MB-25W





Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: Metal case
- Terminals : Lead 0.040 ” (1.02mm) diameter.
- Polarity : Polarity symbols marked on case
- Mounting :Thru hole for #8 screw,20in.-lbs. torque max.
- Weight:0.93 ounce, 26.4 grams

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 current derate by 20%.

	SYMBOLS	KBPC 25005W MR2505W	KBPC 2501W MB251W	KBPC 2502W MB252W	KBPC 2504W MB254W	KBPC 2506W MB256W	KBPC 2508W MR258W	KBPC 2510W MB2510W	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℃ (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}	300.0							Amps
Rating for Fusing(t<8.3ms)	I^2t	373							A^2s
Maximum instantaneous forward voltage dorp per bridge element at 12.5A	V_F	1.1							Volts
Maximum DC reverse current T_A=25℃	I_R	10							μA
at rated DC blocking voltage T_A=100℃		1.0							mA
Isolation voltage from case to leads	V_{ISO}	2500							V_{AC}
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	2.0							°C/W
Operating junction temperature range	T_J	-65 to +150							°C
storage temperature range	T_{STG}	-65 to +150							°C

NOTES:
1.Unit mounted on 5 ” x6 ” x4.9 ” thick(12.8cmx15.2cmx12.4cm)Al.plate.
2.Bolt dowm on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #8 screw.

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CURRENT	**25.0 Ampere**

FIG. 1- FORWARD CURRENT DERATING CURVE

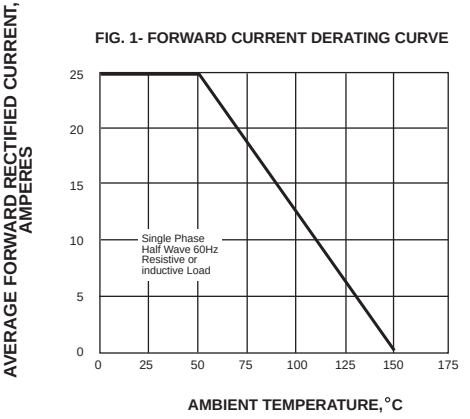

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

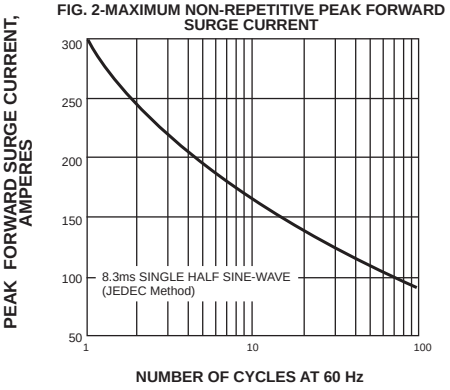

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

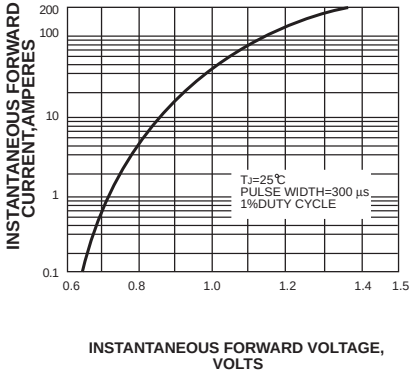

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

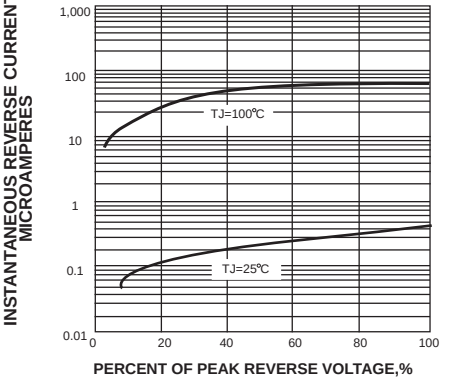

FIG. 5-TYPICAL JUNCTION CAPACITANCE

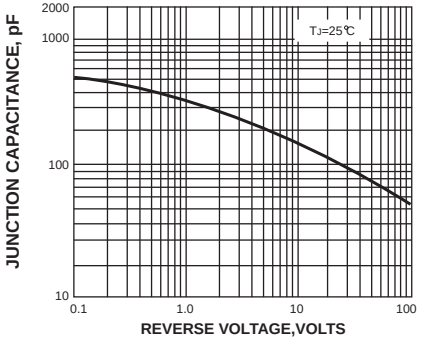

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE