



SINGLE-PHASE BRIDGE RECTIFIER

KBPC25005 THRU KBPC2510

VOLTAGE RANGE

50 to 1000 Volts

MB2505 THRU MB2510

CURRENT

25 Ampere

FEATURES

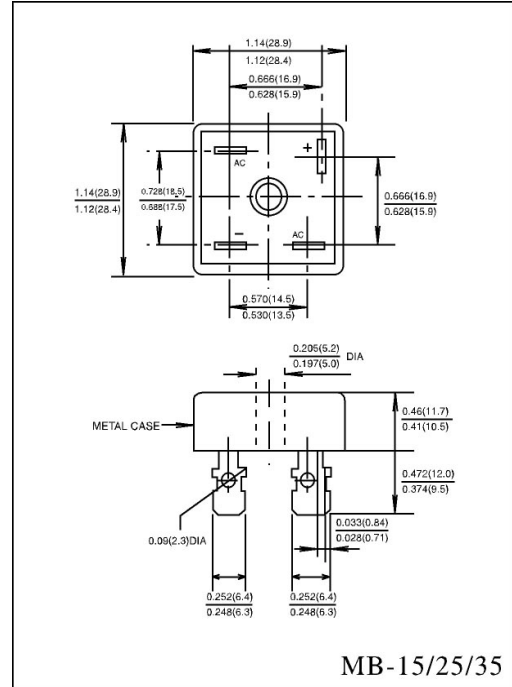
- Low cost
- This series is UL recognized
- High forward surge current capability
- Low thermal resistance.
- High isolation voltage from case to lugs.
- High temperature soldering guaranteed:
260°C/10 second, at 5 lbs. (2.3kg) tension.

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.- lbs. Torque Max.
- Weight: 1.02 ounce, 29gram

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	KBPC	KBPC	KBPC	KBPC	KBPC	KBPC	UNIT
		2505	2501	2502	2504	2506	2508	2510	
		MB2505	MB251	MB252	MB254	MB256	MB258	MB2510	
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)	$I_{(AV)}$	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 ($t < 8.3\text{ms}$)	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	$T_A = 25^\circ\text{C}$	10							μA
	$T_A = 100^\circ\text{C}$	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							$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	(-65 to +150)							$^\circ\text{C}$
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 surface for maximum heat transfer efficiency with # 10 screw.

FIG.1-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

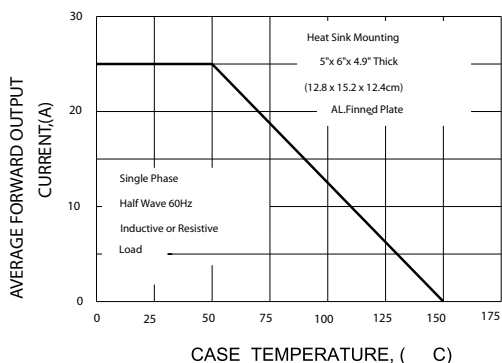


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

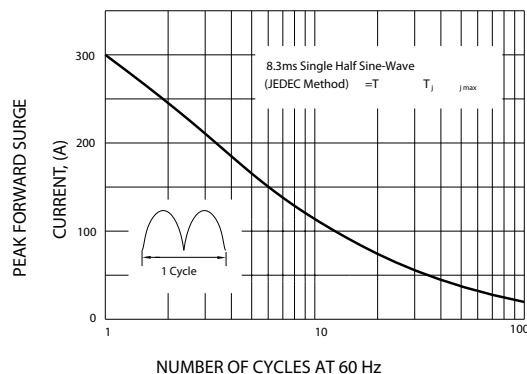


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

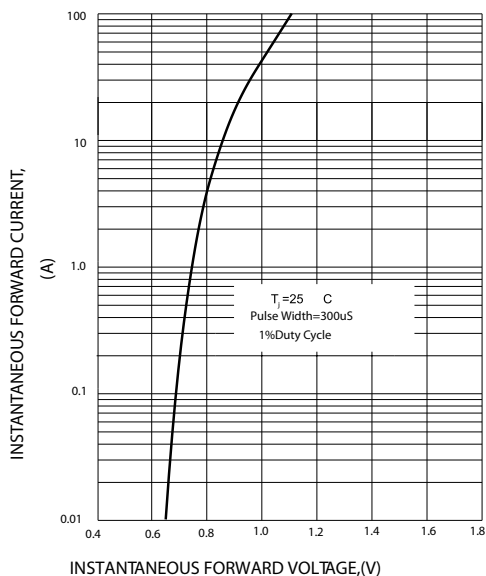


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

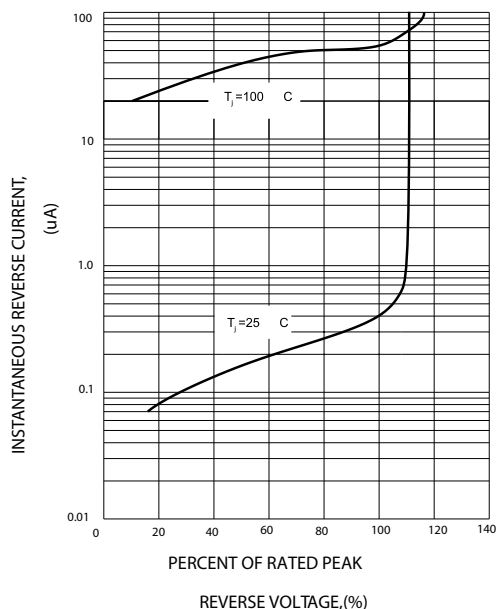


FIG.5-TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT

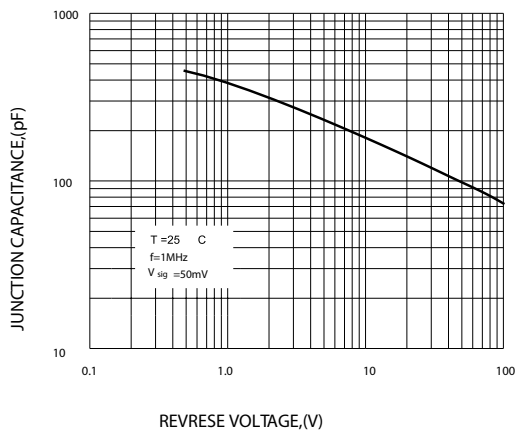


FIG.6-MAXIMUM POWER DISSIPATION

