

SINGLE-PHASE BRIDGE RECTIFIER

FEATURES

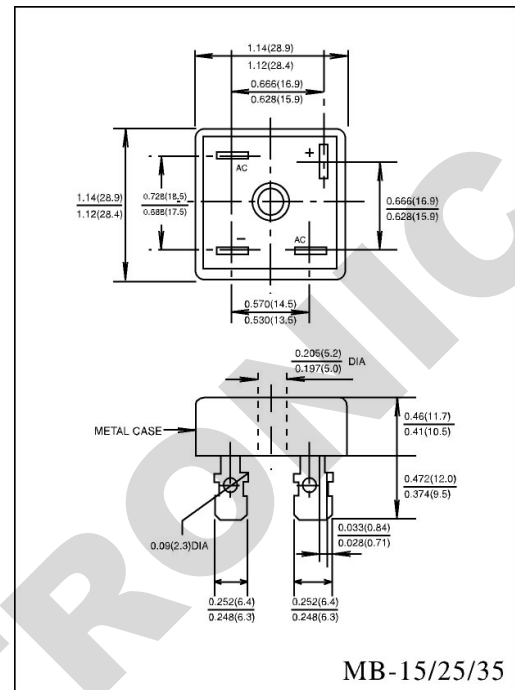
- Low cost
- This series is UL recognized under component index, file number E127707
- High forward surge current capability
- Low thermal resistance.
- High isolation voltage from case to lugs.
- High temperature soldering guaranteed: 260°C/10 second, at 5 lbs. (2.3kg) tension.

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 2505	KBPC 2501	KBPC 2502	KBPC 2504	KBPC 2506	KBPC 2508	KBPC 2510	UNIT
		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°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	10							μ A
	T _A = 100°C	1.0							mA
Isolation Voltage from case to lugs	V _{ISO}	2500							V _{AC}
Typical Thermal Resistance (Note 1,2)	R _{θJC}	2.0							°C/W
Operating Temperature Range	T _J	(-65 to +150)							°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

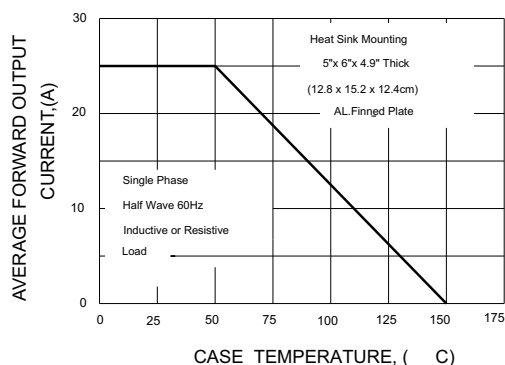


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

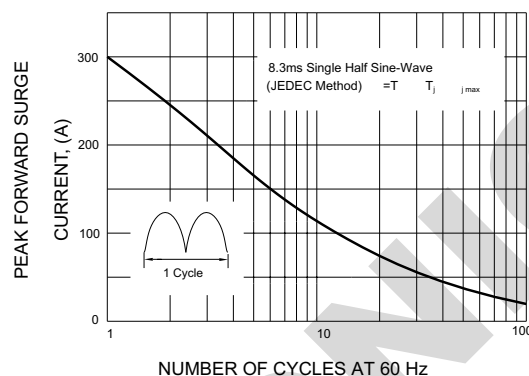


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

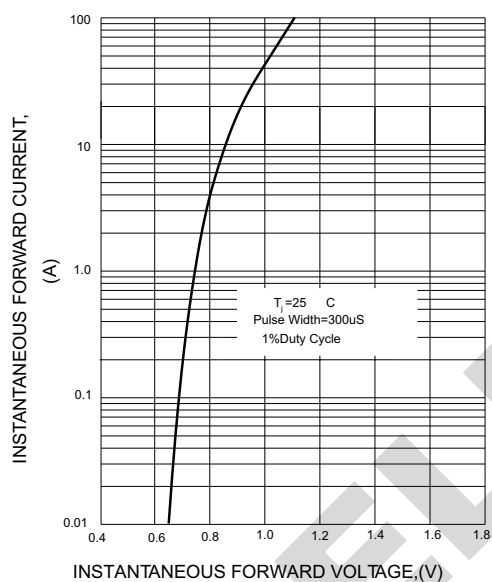


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

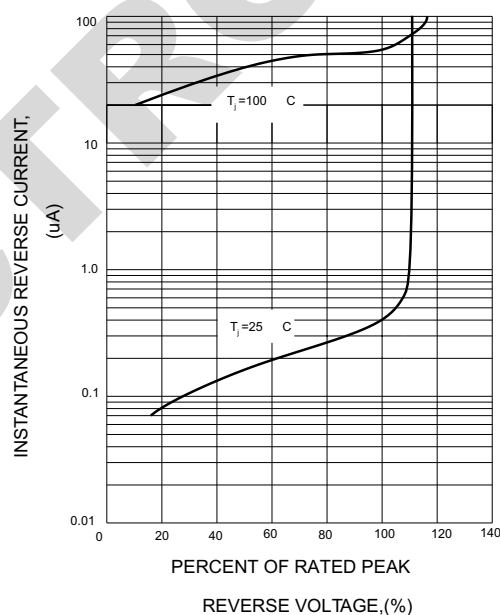


FIG.5-TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT

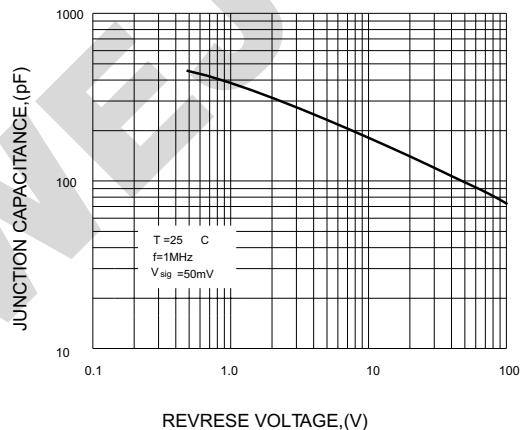


FIG.6-MAXIMUM POWER DISSIPATION

