



SINGLE PHASE BRIDGE RECTIFIER

MB2505 THRU MB2510

VOLTAGE RANGE
CURRENT

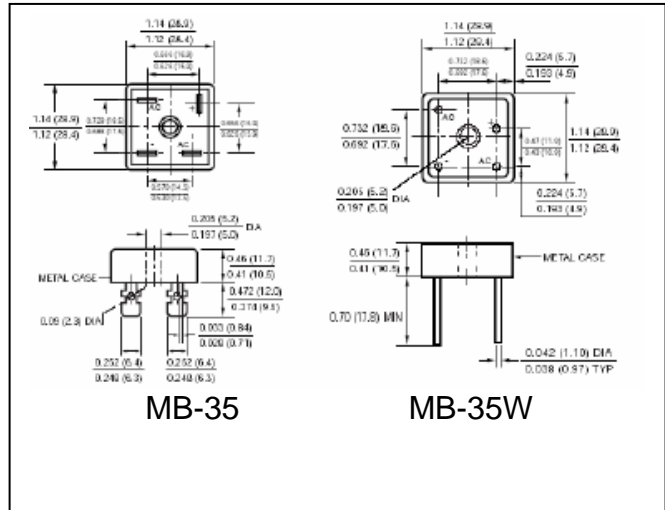
50 to 1000 Volts
25.0 Ampere

FEATURES

- UL recognized
- High forward surge current capability
- Metal package provides low thermal resistance
- High isolation voltage from case to lugs
- High temperature soldering guaranteed:
260°C / 10 seconds
- Available in either lug package (MB2505)
or wire lead package (MB2505W)

MECHANICAL DATA

- Case: Metal
- Terminal: Plated 0.25" (6.35mm) lug or
Plated lead 0.040" (1.02mm) diameter
- Polarity: Polarity symbols marked on case
- Mounting: Thru hole for #10 screw, 20 in-lbs Torque max.
- Weight: 1.02 ounce, 29.0 gram (MB-35)
0.93 ounce, 26.4 gram (MB-35W)



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	MB 2505	MB 251	MB 252	MB 254	MB 256	MB 258	MB 2510	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 Current, At $T_C = 55^\circ\text{C}$ (Note 1 and 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 12.5A	V_F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	I_R	10							μA
		1.0							mA
Isolation Voltage from case to lug or lead	V_{ISO}	2500							Volts
Typical Thermal Resistance (Note 1 and 2)	$R_{\theta jc}$	2.0							$^\circ\text{C}/\text{W}$
Operating Junction Temperature	T_J	(-65 to +150)							$^\circ\text{C}$
Storage Temperature Rang	T_{STG}	(-65 to +150)							$^\circ\text{C}$

Notes:

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



RATINGS AND CHARACTERISTIC CURVES MB2505 THRU MB2510

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

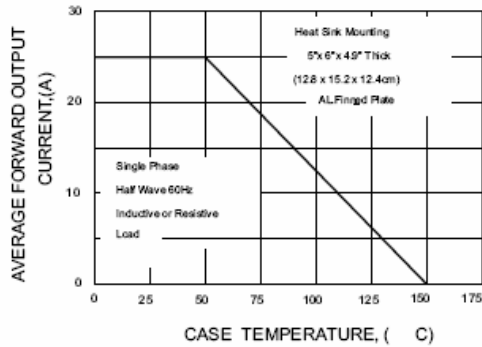


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

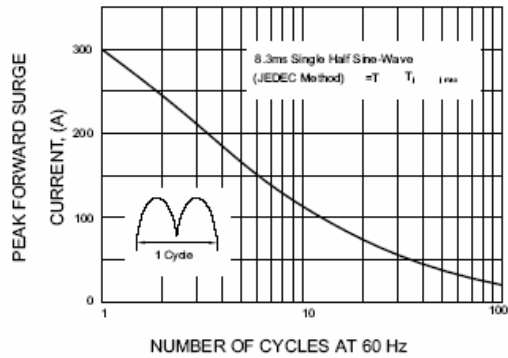


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

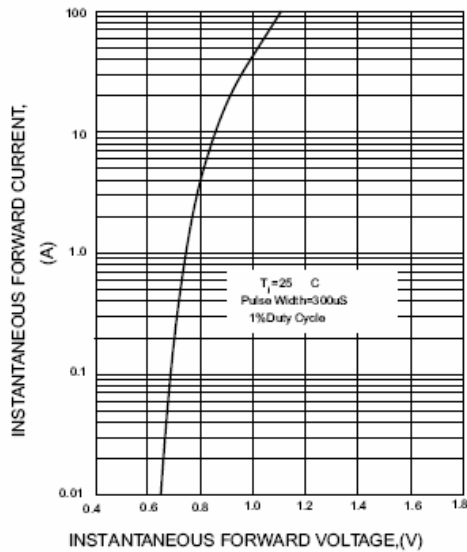


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

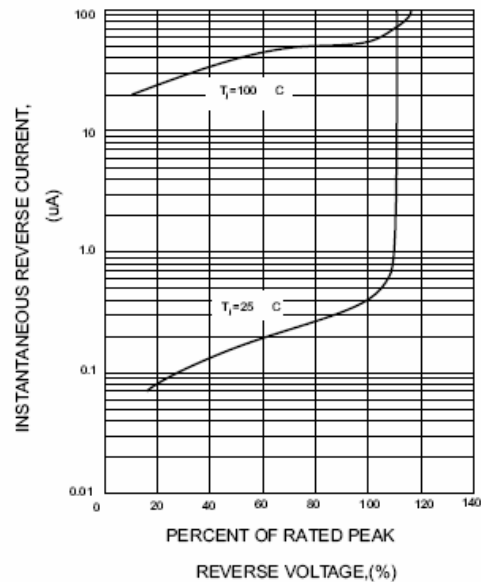


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

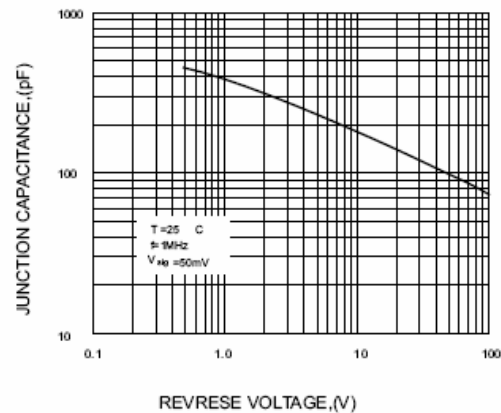


FIG.6-MAXIMUM POWER DISSIPATION

