



SINGLE-PHASE BRIDGE RECTIFIER

MB5005 THRU MB5010

FEATURES

- Low cost
- 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.

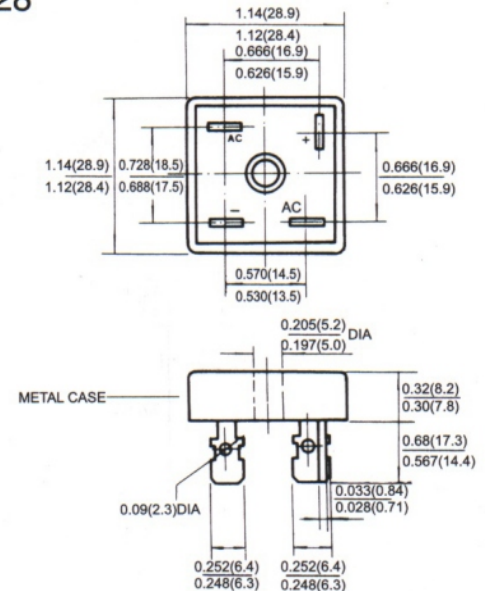
MECHANICAL DATA

- Case: Molded body
- 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: 0.84ounce, 24gram

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%

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MB-15N/25N/35N/40/50

		SYMBOLS	MB5005	MB501	MB502	MB504	MB506	MB508	MB5010	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°C (Note1, 2)		I _(AV)	50							Amps
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)		I _{FSM}	400							Amps
Rating for Fusing (t<8.3ms)		I ² t	664							A ² s
Maximum Instantaneous Forward Voltage Drop per bridge element at 25A		V _F	1.1							Volts
Maximum DC Reverse Current at rated	T _A = 25°C	I _R	10							μ Amp
DC blocking voltage per element	T _A = 100°C		1.0							mAmp
Isolation Voltage from case to lugs		V _{ISO}	2500							V _{AC}
Typical Thermal Resistance (Note 1, 2)		R _{JC}	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 9" X 3.5" X 4.6" (23 X 9 X 11.8cm) Al. finned plate.

2. Bolt down on heatsink with silicon thermal compound between bridge and mounting surface for maximum heat transfer efficiency
with #10 screw.

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