MB1505W-MB1510W

SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE: 50 - 1000V
CURRENT: 15 A

Features

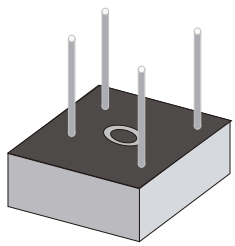
- Metal case for Maximum Heat Dissipation
- Surge overload ratings-300 Amperes
- Low forward voltage drop

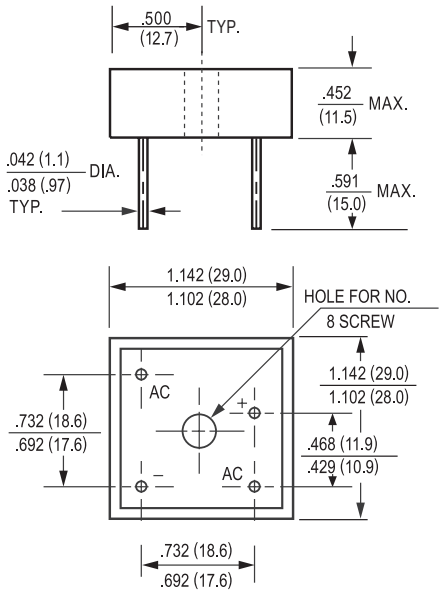
Mechanical Data

- Case: Metal,electrically isolated
- Epoxy: UL 94V-0 rate flame retardant
- Lead: MIL-STD-202E, Method 208 guaranteed
- Polarity: As marked
- Mounting position: Any
- Weight: 30 grams

RoHS COMPLIANT

MB-W





Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	MB1505W	MB151W	MB152W	MB154W	MB156W	MB158W	MB1510W	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current, at T_C= 55<0002> (Note 1, 2)	$I_{(AV)}$	15							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^2t	373							A^2s
Maximum Instantaneous Forward Voltage Drop per bridge element at 7.5A	V_F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element T_A = 25℃	I_R	10							μA
T_A = 100℃		1.0							mA
Isolation Voltage from case to leads	V_{ISO}	2500							V_{AC}
Typical Thermal Resistance (Note 1,2)	$R_{\theta JC}$	2.0							℃ /W
Operating Temperature Range	T_J	(-65 to +150)							℃
Storage Temperature Range	T_{STG}	(-65 to +150)							

1. Unit mounted on 5" X 4" X 3" (12.8cm X 10.2cm X 7.3cm)Al. finned Plate.
2. Bolt down on heat-sink with silicon thermal compound between bridge and mounting sutfae for maximum heat transfer efficiency with # 10 screw.

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

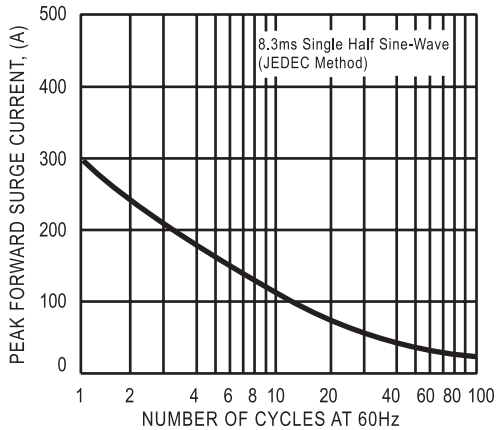


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

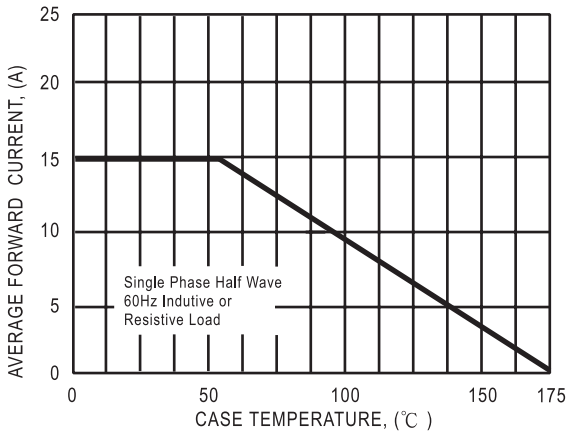


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

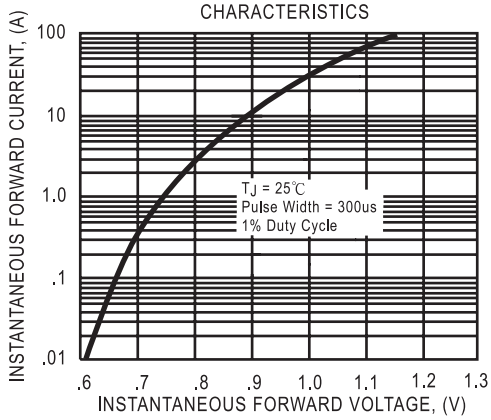


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

