



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

MB1505
THRU
MB1510

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 15 Amperes

FEATURES

- * Metal case for Maximum Heat Dissipation
- * Surge overload ratings - 240 Amperes
- * Low forward voltage drop

MECHANICAL DATA

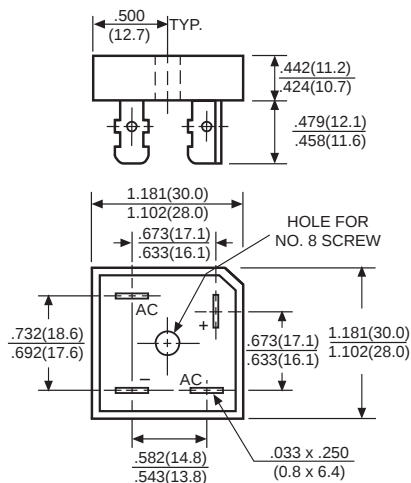
- * Case: Molded plastic with heatsink
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Plated .25"(6.35mm) Faston lugs, Solderable per MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 30 grams approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



MB-25



Dimensions in inches and (millimeters)

		SYMBOL	MB1505	MB151	MB152	MB154	MB156	MB158	MB1510	UNITS
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		V _{RMS}	35	70	140	280	420	560	700	Volt
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		I _O	15							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	300							Amps
Maximum Forward Voltage Drop per element at 5.0A DC		V _F	1.1							Volts
Maximum DC Reverse Current at Rated	@ T _A = 25°C	I _R	10							μAmps
DC Blocking Voltage per element	@ T _A = 100°C		500							
I ² t Rating for Fusing (t<8.3ms)		I ² t	374							A ² Sec
Typical Junction Capacitance (Note1)		C _J	40							pF
Typical Thermal Resistance (Note 2)		R _{θJA}	19							°C/W
Operating and Storage Temperature Range		T _J , T _{STG}	-55 to +175							°C

NOTES : 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts

2.Thermal Resistance from Junction to Ambient and from Junction to Lead mounted on P.C.B. with 0.47 x 0.47" (12 x 12mm) copper pads.

RATING AND CHARACTERISTIC CURVES (MB1505 THRU MB1510)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

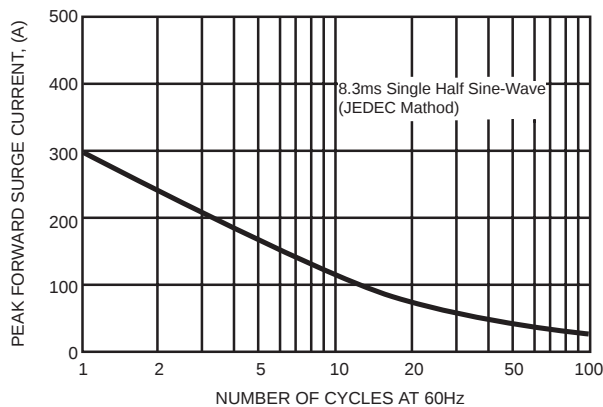


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

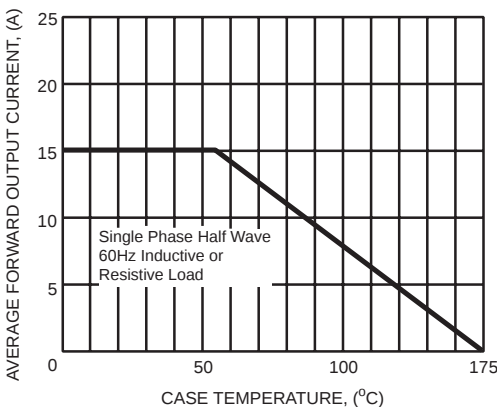


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

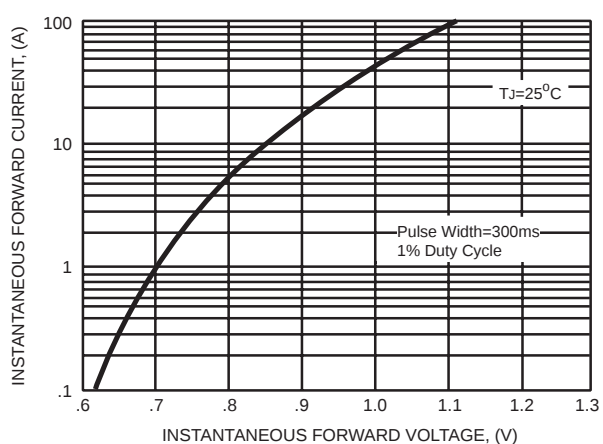
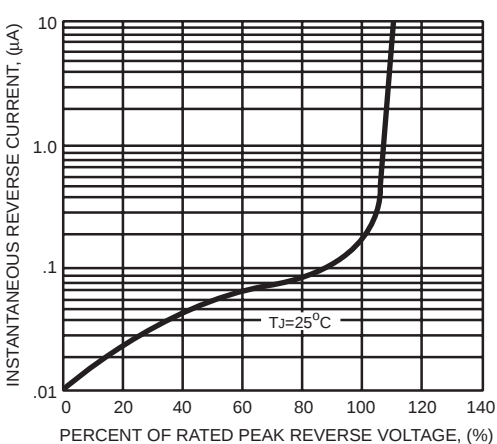


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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