RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

MB2505 THRU MB2510

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 25 Amperes

Discontinued

FEATURES

* Superior thermal desing
* 300 amperes surge rating
* 1/4" universal faston terminal
* Hole thru for #8 screw

MECHANICAL DATA

* Epoxy : Device has UL flammability classification 94V-0
* UL listed the recongnized component director, file #94233

DISCONTINUED-

"This series is replaced by the MP25 series that meets to the same fit and function parameters.
The MP25 series is preferred for PCB assembly."



MB-25



MB-25W

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%.

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	MB2505	MB251	MB252	MB254	MB256	MB258	MB2510	UNITS
Maximum Recurrent 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°C	I_O	25.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300							Amps
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	4							°C/W
	$R_{\theta JA}$	16							
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	MB2505	MB251	MB252	MB254	MB256	MB258	MB2510	UNITS
Maximum Instantaneous Forward Voltage at 12.5ADC		V_F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	IR	5.0							uAmps
	@T_A = 100°C		500							

NOTES : 1. Suffix "W" for wire type.
2. Typical Thermal Resistance: Heat-sink case mounted.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2007-5

RATING AND CHARACTERISTICS CURVES (MB2505 THRU MB2510)

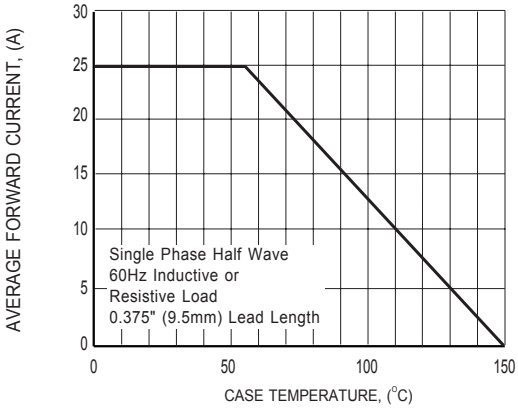


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

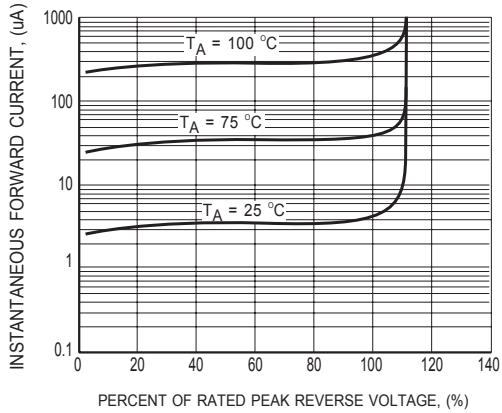


FIG.2 TYPICAL REVERSE CHARACTERISTICS

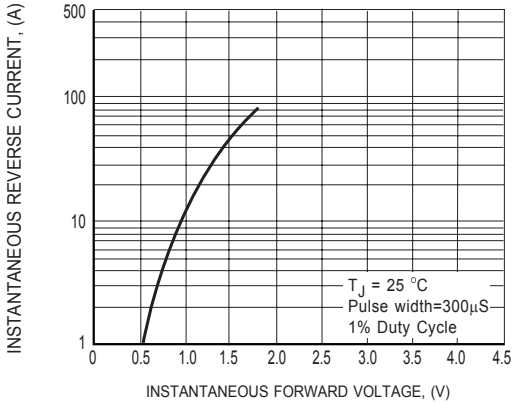


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

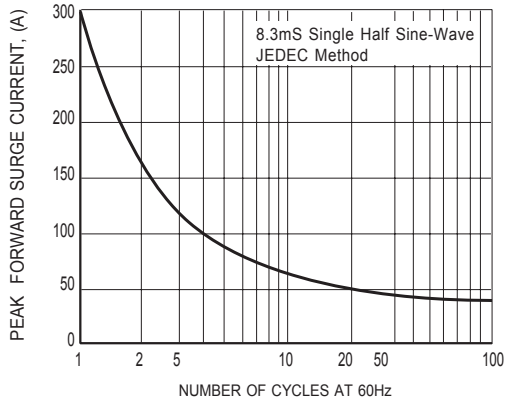
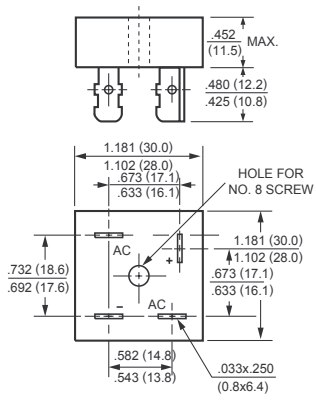
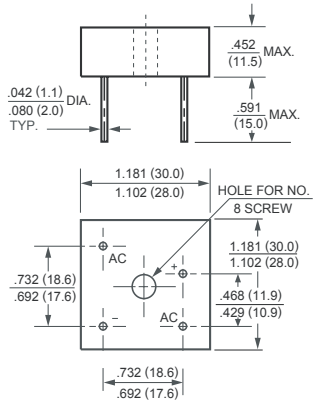


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



MB-25



MB-25W

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