

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 1000 Volts CURRENT 25 Amperes

**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."

**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)**

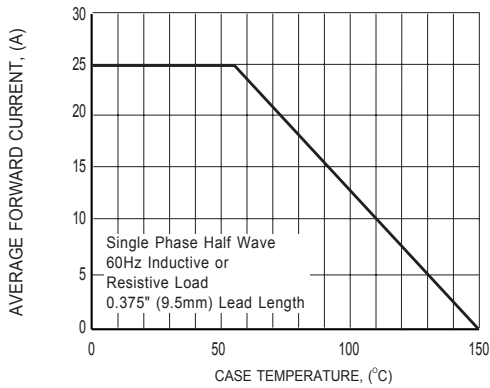
RATINGS	SYMBOL	MB2505	MB251	MB252	MB254	MB256	MB258	MB2510	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>C</sub> = 55°C	I <sub>O</sub>	25.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	300							Amps
Typical Thermal Resistance (Note 2)	R <sub>θJC</sub>	4							°C/W
	R <sub>θJA</sub>	16							
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150							°C

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

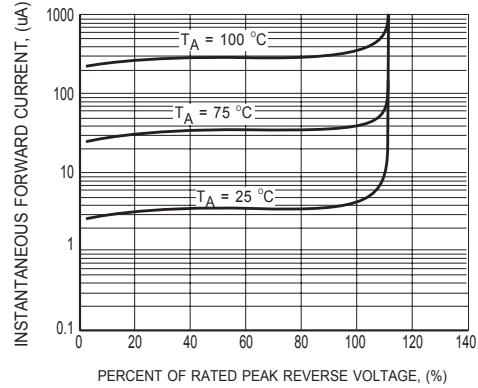
CHARACTERISTICS	SYMBOL	MB2505	MB251	MB252	MB254	MB256	MB258	MB2510	UNITS
Maximum Instantaneous Forward Voltage at 12.5ADC	V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T <sub>A</sub> = 25°C	5.0							uAmps
	@T <sub>A</sub> = 100°C	500							

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

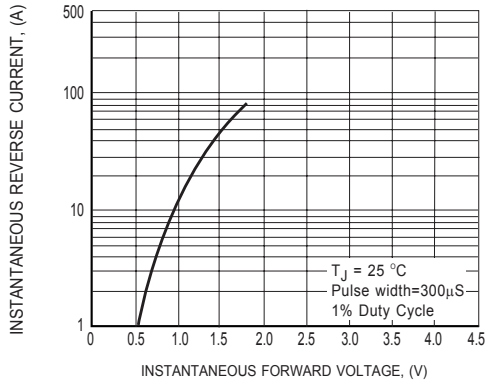
# RATING AND CHARACTERISTICS CURVES ( MB2505 THRU MB2510 )



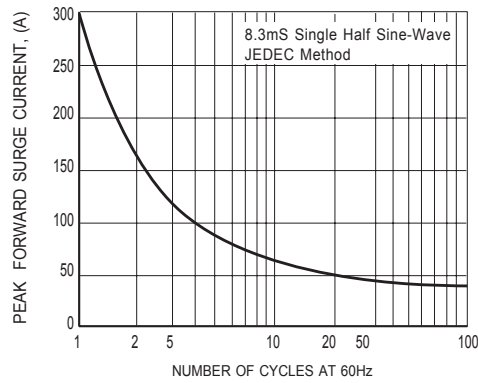
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



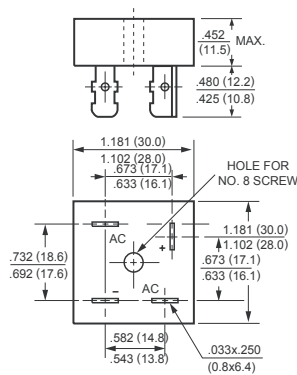
**FIG.2 TYPICAL REVERSE CHARACTERISTICS**



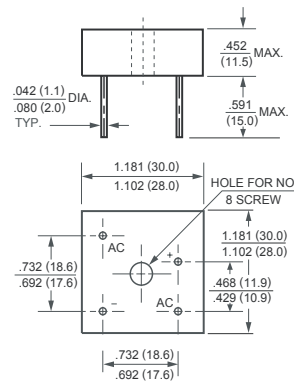
**FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**MB-25**



**MB-25W**



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