

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**

**VOLTAGE RANGE 50 to 1000 Volts CURRENT 15 Amperes**

**FEATURES**

- \* Superior thermal desing
- \* 300 amperes surge rating
- \* 1/4" universal faston terminal
- \* Hole thru for # 10 screw

**MECHANICAL DATA**

- \* UL listed the recognized component directory, file #E94233
- \* Epoxy: Device has UL flammability classification 94V-O



**MP-15**



**MP-15W**

**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** (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	MP1505	MP151	MP152	MP154	MP156	MP158	MP1510	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input 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 Output Current at Tc = 55°C	I <sub>o</sub>	15.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	300							Amps
RMS isolation voltage from case to lead	V <sub>ISO</sub>	2500							Volts
Typical Thermal Resistance (from junction to case)	R <sub>θJC</sub>	2							°C/W
Typical Thermal Resistance (from junction to ambient)	R <sub>θJA</sub>	19							
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150							°C

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

CHARACTERISTICS	SYMBOL	MP1505	MP151	MP152	MP154	MP156	MP158	MP1510	UNITS
Maximum Forward Voltage Drop per element at 7.5A DC	V <sub>F</sub>	1.1							Volts
Maximum Reverse Current at Rated	I <sub>R</sub>	5.0							uAmps
DC Blocking Voltage per element		0.5							mAmps

NOTE: 1. Suffix "W" for wire type  
2. "Fully ROHS compliant","100% Sn plating(Pb-free).

# RATING AND CHARACTERISTIC CURVES (MP1505 THRU MP1510)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

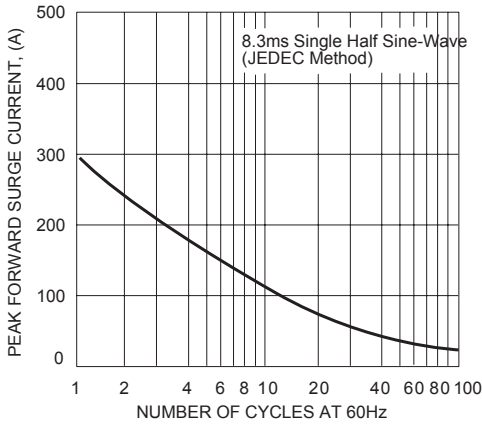


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

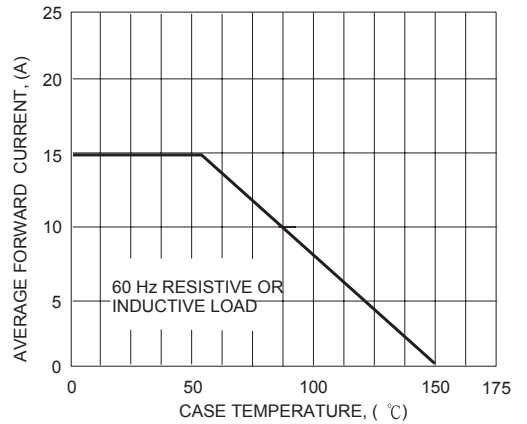


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

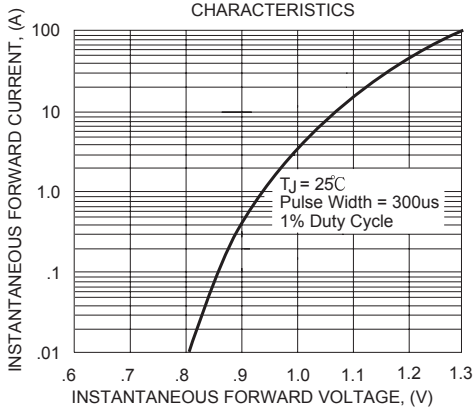


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

