

**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  | VRRM    | 50           | 100   | 200   | 400   | 600   | 800   | 1000   | Volts |
| Maximum RMS Bridge Input Voltage  | VRMS    | 35           | 70    | 140   | 280   | 420   | 560   | 700    | Volts |
| Maximum DC Blocking Voltage   | VDC     | 50           | 100   | 200   | 400   | 600   | 800   | 1000   | Volts |
| Maximum Average Forward Output Current at Tc = 55°C   | Io      | 15.0         |       |       |       |       |       |        | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM    | 300          |       |       |       |       |       |        | Amps  |
| RMS isolation voltage from case to lead   | Viso    | 2500         |       |       |       |       |       |        | Volts |
| Typical Thermal Resistance (from junction to case)  | RθJC    | 2            |       |       |       |       |       |        | °C/W  |
| Typical Thermal Resistance (from junction to ambient)   | RθJA    | 19           |       |       |       |       |       |        |       |
| Operating and Storage Temperature Range   | TJ,TSTG | -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 | VF     | 1.1    |       |       |       |       |       |        | Volts |
| Maximum Reverse Current at Rated                    | IR     | 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

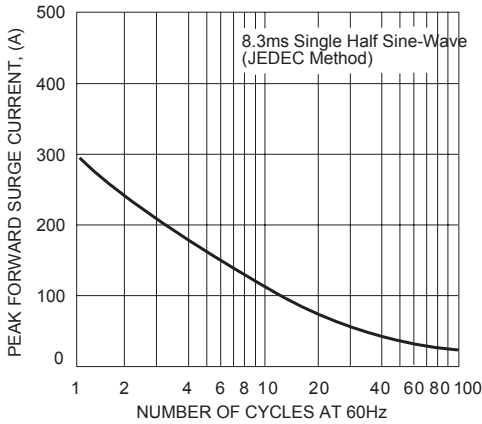


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

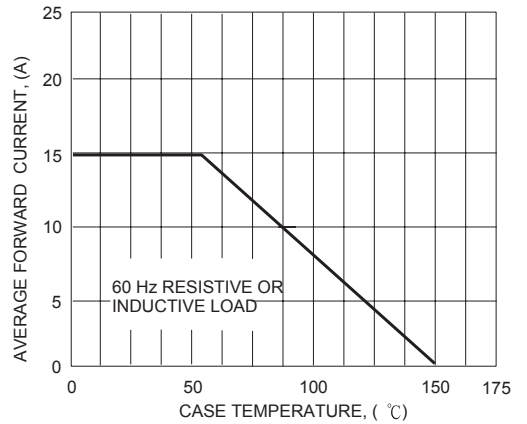


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

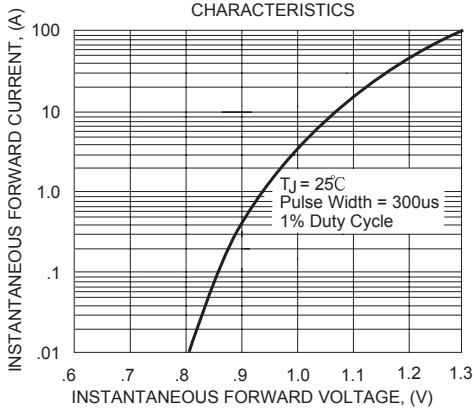


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

