

**MP2505  
THRU  
MP2510**

**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 # 10 screw

**MECHANICAL DATA**

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

**MP-25**

**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%.

**MP-25W**

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

RATINGS	SYMBOL	MP2505	MP251	MP252	MP254	MP256	MP258	MP2510	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 Rectified Output Current at Tc = 55°C	Io	25.0							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	1.9							°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	MP2505	MP251	MP252	MP254	MP256	MP258	MP2510	UNITS
Maximum Forward Voltage Drop per element at 12.5A 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).

2008-10  
REV: A

# RATING AND CHARACTERISTIC CURVES( MP2505 THRU MP2510 )

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

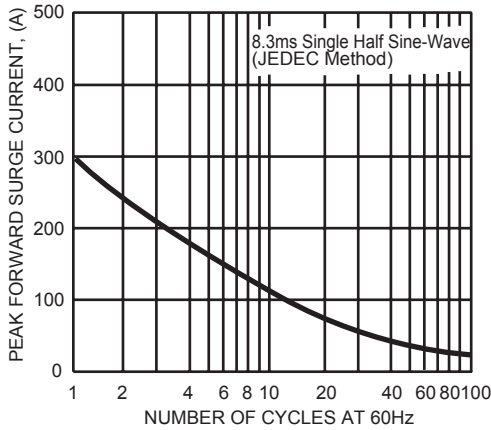


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

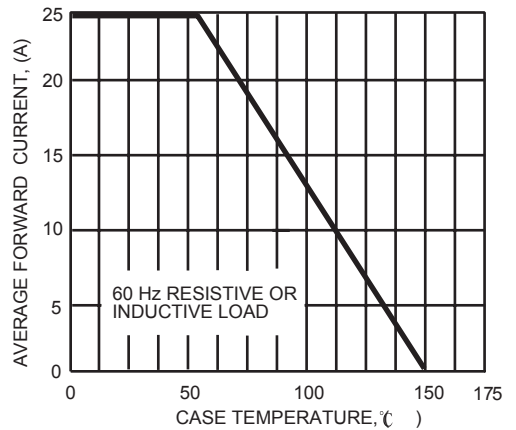


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

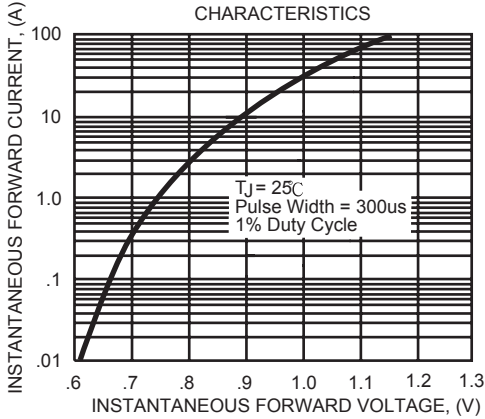
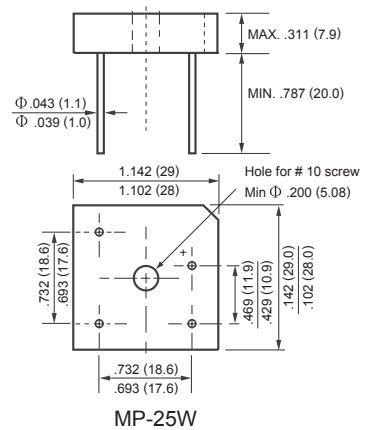
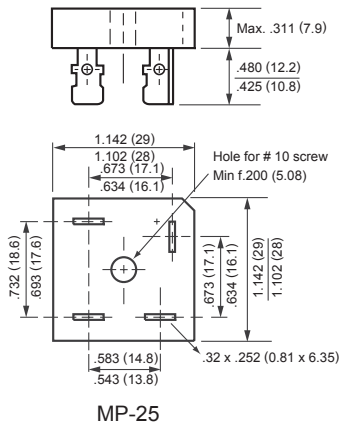
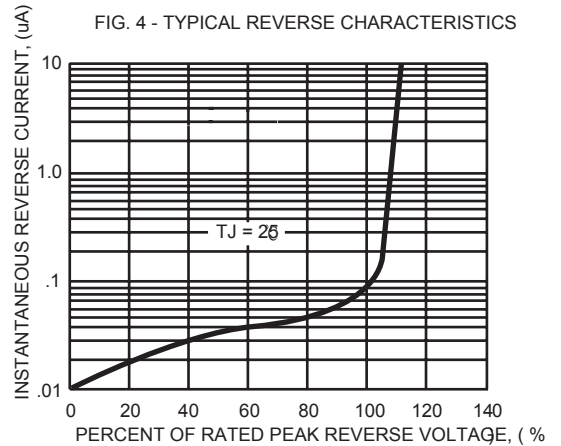


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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