



# MP15, 25, 35, 50 SERIES

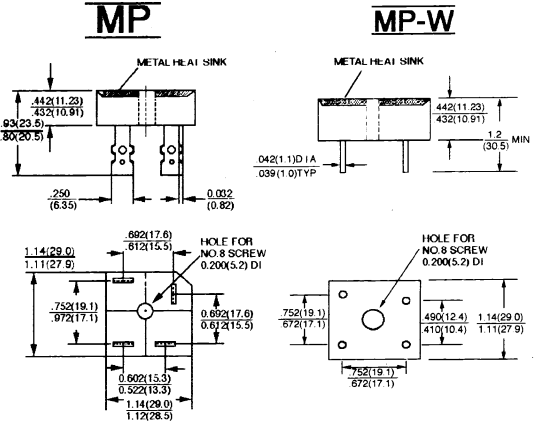
**HIGH CURRENT 15, 25, 35, 50 AMPS SINGLE PHASE BRIDGE RECTIFIERS**



## FEATURES

- \* The plastic material used carries Underwriters Laboratory flammability<sup>TM</sup> recognition 94V - 0
- \* Integrally molded heatsink provide very low thermal resistance for maximum heat dissipation
- \* Surge overload ratings from 300 Ampere to 400 Amperes
- \* Terminals solderable per MIL - STD - 202. Method 208 (For wire type)
- \* Typical IR less than 0.2  $\mu$ A
- \* High temperature soldering guaranteed (For wire type): 250°C/5 seconds/ .375", (9.5mm) lead length
- \* Isolated Voltage from case to terminal over 2500 volts

**VOLTAGE RANGE**  
50 to 1000 Volts  
**CURRENT**  
15.0/25.0/35.0/50.0 Amperes



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.  
60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOLS	-00	-01	-02	-04	-06	-08	-10	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum D. C Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current at $T_c = 55^\circ\text{C}$ (See Fig. 1)	$I_{F(AV)}$	MP15 MP25 MP35 MP50				15.0 25.0 35.0 50.0			A
Peak Forward Surge Current Single sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	MP15 MP25 MP35 ~ MP50				300 300 400			A
Maximum Instantaneous Forward Voltage Drop Per Element at Specified Current	$V_F$	MP15 7.5A MP25 12.5A MP35 17.5A MP50 25.0A				1.10			V
Maximum Reverse DC Current at Rated D. C Blocking Voltage per Element	$I_R$					10.0			$\mu$ A
Typical Thermal Resistance <sup>(1)</sup>	$R_{\theta JC}$					1.5			$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J/T_{STG}$					-50 to +125 / -50 to +150			$^\circ\text{C}$

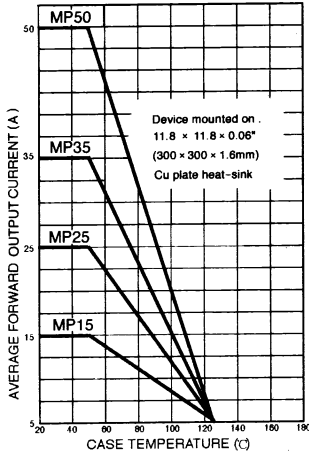
Notes: 1. Thermal Resistance from Junction to Case per leg.

2. Bolt down on heatsink with silicone thermal compound between bridge and mounting surface for maximum heat transfer with # 10 screw

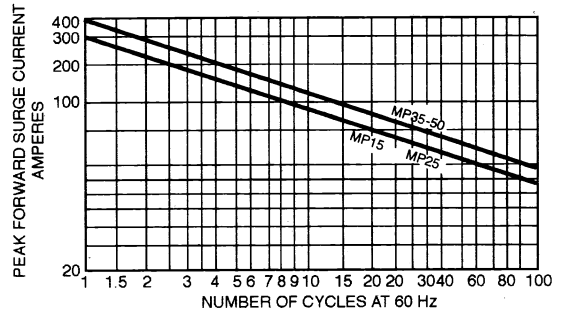
3. Suffix "W" - Wire Lead Structure.

# RATINGS AND CHARACTERISTIC CURVES (MP1500 MP1510 MP2500 MP2510 MP3500 MP3510 MP5000 MP5010) THRU

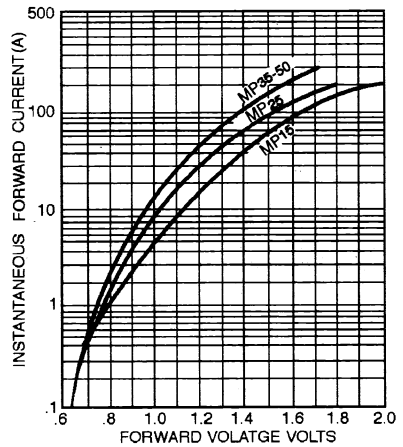
**FIG. 1 - TYPICAL FORWARD OUTPUT CURRENT DERATING CURVE**



**FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT - PER ELEMENT**



**FIG. 4 - TYPICAL FORWARD CHARACTERISTICS - PER ELEMENT**



**FIG. 3 - TYPICAL REVERSE CHARACTERISTICS PER ELEMENT**

