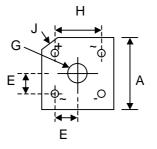


# MP1500 - MP1510

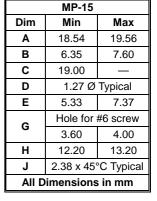
## **15A BRIDGE RECTIFIER**

#### **Features**

- Diffused Junction
- High Current Capability
- High Case Dielectric Strength
- High Surge Current Capability
- Ideal for Printed Circuit Board Application
- Plastic Material has Underwriters Laboratory Flammability Classification 94V-O



Metal Heat Sink



#### **Mechanical Data**

Case: Molded Plastic

 Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Polarity: Marked on Body

Weight: 5.4 grams (approx.)Mounting Position: Through Hole for #6 Screw

Mounting Position: Through Hole for #6 Screw
 Mounting Torque: 5.0 Inch-pounds Maximum

Marking: Type Number

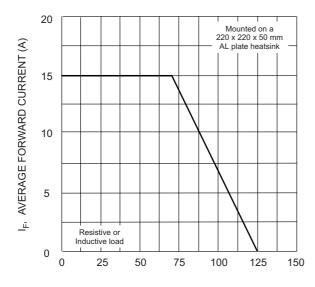
### Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

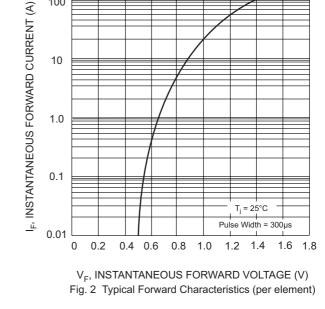
Characteristic	Symbol	MP 1500	MP 1501	MP 1502	MP 1504	MP 1506	MP 1508	MP 1510	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	200	400	600	800	1000	<b>V</b>
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	٧
Average Rectified Output Current (Note 1) @T <sub>C</sub> = 70	°C Io	15				Α			
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	300				А			
Forward Voltage (per element) @I <sub>F</sub> = 7.5 <i>a</i>	A VFM	1.1				٧			
Peak Reverse Current $@T_C = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_C = 100^{\circ}C$	I ID	10 1.0				μA mA			
I <sup>2</sup> t Rating for Fusing (t<8.3ms) (Note 2)	I <sup>2</sup> t				64				A <sup>2</sup> s
Typical Junction Capacitance (Note 3)	Cj				110				pF
Typical Thermal Resistance (Note 4)	R <sub>θ</sub> JC				7.5				K/W
Operating and Storage Temperature Range	Tj, Tstg			-(	65 to +12	25			°C

Note: 1. Mounted on metal chassis.

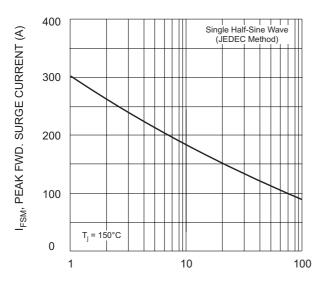
- 2. Non-repetitive, for t > 1ms and < 8.3ms.
- 3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
- 4. Thermal resistance junction to case per element.



 $T_C$ , CASE TEMPERATURE (°C) Fig. 1 Forward. Current Derating Curve



100



NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Surge Current

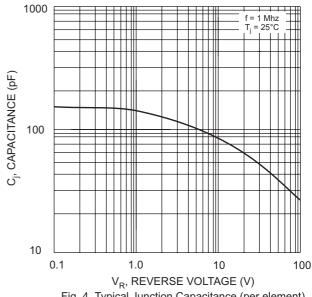


Fig. 4 Typical Junction Capacitance (per element)

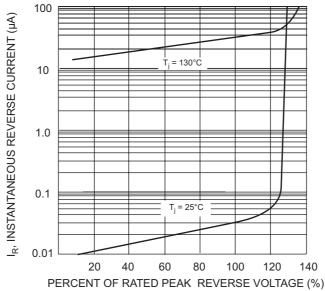


Fig. 5 Typical Reverse Characteristics (per element)

#### **ORDERING INFORMATION**

Product No.	Package Type	Shipping Quantity				
MP1500	Square Bridge	200 Units/Box				
MP1501	Square Bridge	200 Units/Box				
MP1502	Square Bridge	200 Units/Box				
MP1504	Square Bridge	200 Units/Box				
MP1506	Square Bridge	200 Units/Box				
MP1508	Square Bridge	200 Units/Box				
MP1510	Square Bridge	200 Units/Box				

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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