



# 15A SINGLE-PHASE 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 UL Flammability 94V-0
- Recognized File # E157705

# G + ~ • A

Metal Heatsink

MP-15				
Dim	Min	Max		
Α	18.54	19.56		
В	6.35	7.60		
C	19.00			
D	1.27 Ø Typical			
Е	5.33	7.37		
G	Hole for #6 screw			
G	3.60	4.00		
Н	12.20	13.80		
All Dimensions in mm				

### **Mechanical Data**

- Case: MP-15, Molded Plastic with Heatsink
- 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 Torque: 10 cm-kg (8.8 in-lbs) Max.
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version,
  Add "-LF" Suffix to Part Number, See Page 4

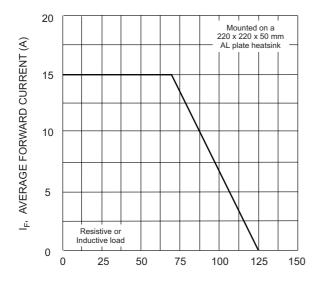
### Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

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

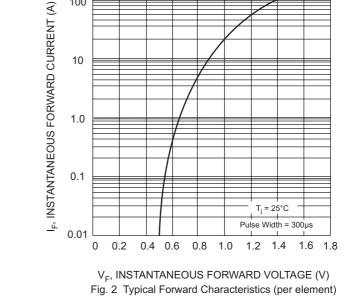
Characteristic		Symbol	MP 1500	MP 1501	MP 1502	MP 1504	MP 1506	MP 1508	MP 1510	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		Vrrm Vrwm Vr	50	100	200	400	600	800	1000	V
RMS Reverse Voltage		VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current (Not	e 1) @T <sub>C</sub> = 70°C	lo				15				Α
Non-Repetitive Peak Forward Surge C Single half sine-wave superimposed of (JEDEC Method)		IFSM				300				А
Forward Voltage per leg	@I <sub>F</sub> = 7.5A	VFM	1.1			V				
Peak Reverse Current At Rated DC Blocking Voltage	@T <sub>A</sub> = 25°C @T <sub>A</sub> = 125°C	lr				10 1.0				μA mA
I <sup>2</sup> t Rating for Fusing (t<8.3ms) (Note 2		l <sup>2</sup> t				127				A <sup>2</sup> s
Typical Junction Capacitance (Note 3)		Cj	180					pF		
Typical Thermal Resistance per leg (Note 1)		RθJC	6.0					°C/W		
Operating and Storage Temperature Range		Тj, Тsтg			-6	65 to +12	25			°C

Note: 1. Mounted on metal chassis.

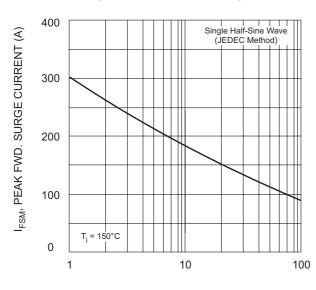
- 2. Non-repetitive, for t > 1ms and < 8.3ms.
- 3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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



100



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

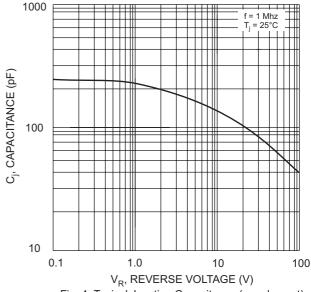


Fig. 4 Typical Junction Capacitance (per element)

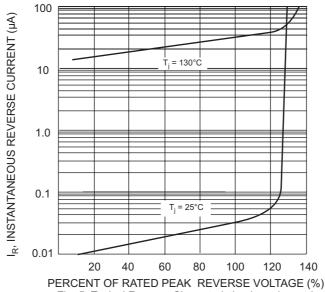
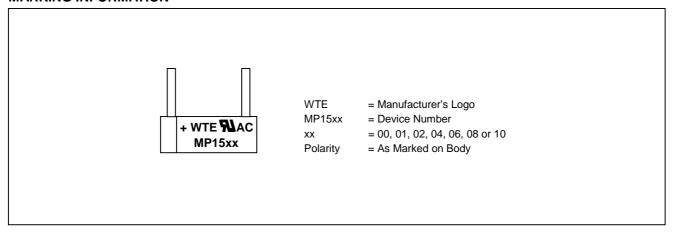


Fig. 5 Typical Reverse Characteristics (per element)

## **MARKING INFORMATION**



### **PACKAGING INFORMATION**

### **BULK**

Inner Box Size	Quantity	Carton Size	Quantity	Approx. Gross Weight (KG)
L x W x H (mm)	(PCS)	L x W x H (mm)	(PCS)	
237 x 240 x 52	200	500 x 255 x 275	2,000	14.0

Note: 1. Paper box, white or brown color.

### **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.
- To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, MP1500-LF.

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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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