

# Single-Phase Bridge Rectifier 15.0A MP-S Package

MP15-S Series

MERITEK

## FEATURE

- Operating Temperature: -55 ~ +150°C
- Average Forward Rectified Output Current 15.0A
- Repetitive Reverse Voltage from 50~1000V
- Surge Overload Ratings to 300A
- Integrally Molded Heat Sinks Provide Low Thermal Resistance
- Hole for # 10 Screw
- Flammability Classification 94V-0
- UL Safety Approved: Certification No: E223027



## MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

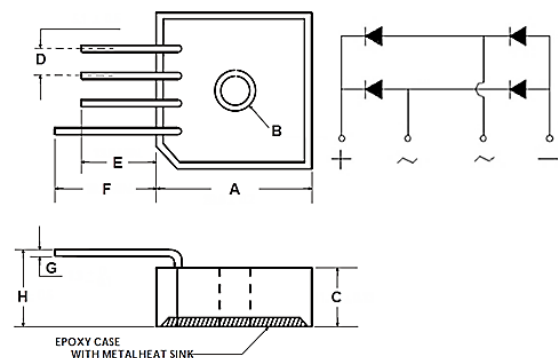


Parameter	Code	MP 15005S	MP 1501S	MP 1502S	MP 1504S	MP 1506S	MP 1508S	MP 1510S	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current	$I_F$	15, $T_A=55^\circ\text{C}$							A
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	300							A
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	374							$\text{A}^2\text{sec}$
Maximum Instantaneous Forward Voltage Drop per Diode	$V_F$	1.0, $I_F=7.5\text{A}$							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Element	$I_R$	10, $T_A=25^\circ\text{C}$							$\mu\text{A}$
	$I_R$	500, $T_A=125^\circ\text{C}$							$\mu\text{A}$
Operating Junction and Storage Temperature	$T_J, T_{STG}$	-55~150							$^\circ\text{C}$
Typical Thermal Resistance per Element	$R_{\theta JA}$	2.0							$^\circ\text{C/W}$

- Note:
1. Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz. For Capacitive load derate current by 20%.
  2. Thermal resistance from Junction to Ambient on P.C. board mounting.

## DIMENSION AND PIN CONFIGURATION

Item	Min. (mm)	Max. (mm)
A	28.40	28.80
B	DIA. 5.10	DIA. 5.60
C	10.97	11.23
D	4.60	5.60
E	13.90	-
F	19.10	-
G	1.20	1.30
H	13.90	14.90



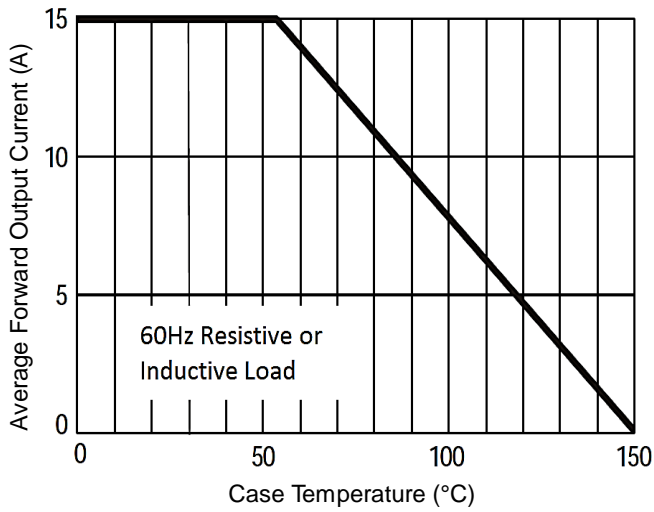
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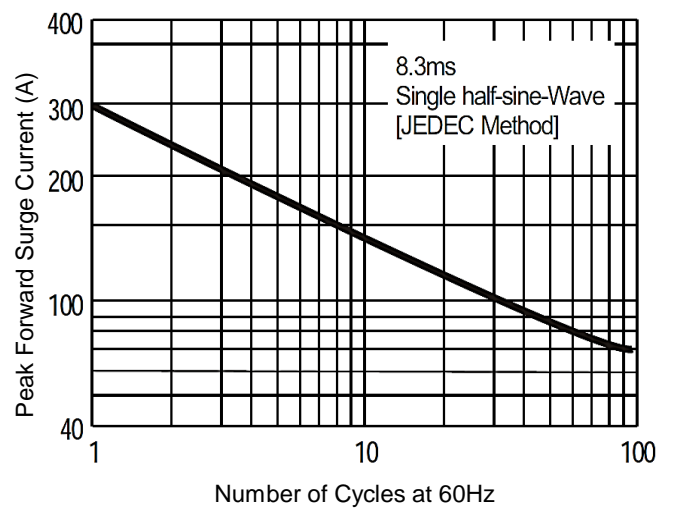
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## RATING AND CHARACTERISTIC CURVES

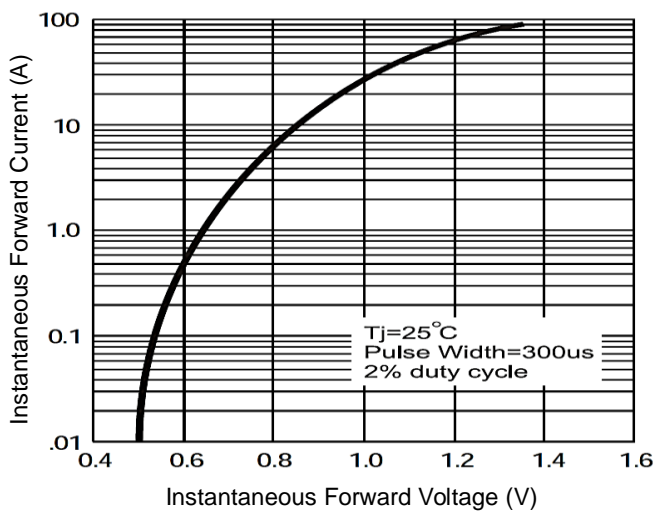
Derating Curve for Output Rectified Current



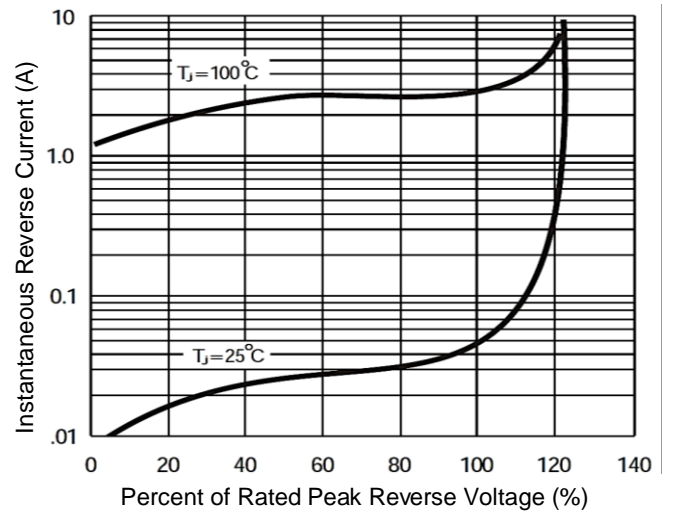
Maximum Non-Repetitive Peak Forward Surge Current



Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics at T<sub>J</sub>=25°C



\*Specifications subject to change without notice.