



# THE DATASHEET OF MB14S-TP





Micro Commercial Components



Micro Commercial Components  
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# MB12S THRU MB110S

## Features

- High Temperature Soldering Guaranteed: 260°C/10 Second
- Saves Space On Printed Circuit Board
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

## Mechanical Data

- Terminals: Plated leads Solderable per MIL-STD-750, Method 2026
- Moisture Sensitivity: Level 1 per J-STD-020C

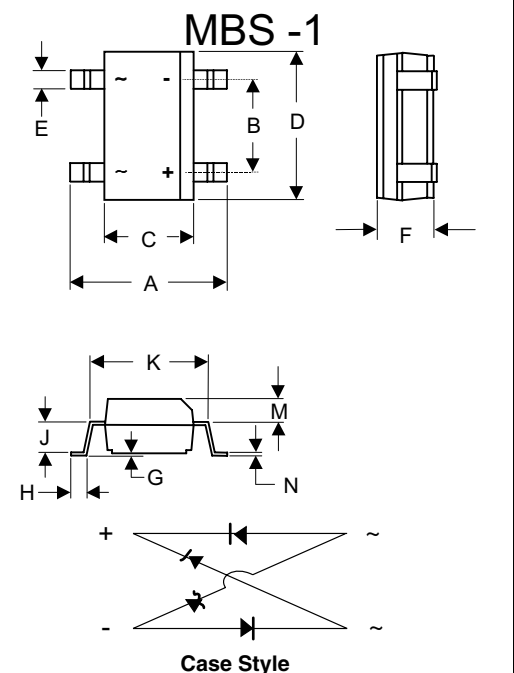
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MB12S	MB12S	20V	14V	20V
MB14S	MB14S	40V	28V	40V
MB16S	MB16S	60V	42V	60V
MB18S	MB18S	80V	56V	80V
MB110S	MB110S	100V	70V	100V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1A	
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	0.50V 0.70V 0.85V	$I_{FM} = 1A;$ $T_A = 25^\circ C$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.5mA 20mA	$T_A = 25^\circ C$ $T_A = 100^\circ C$
Typical Thermal Resistance	$R_{thJA}$ $R_{thJL}$	$88^\circ C/W^{(2)}$ $28^\circ C/W^{(2)}$	per leg
Operating Junction and Storage Temperature Range	$T_J$ $T_{STG}$	-55 to +150 °C	

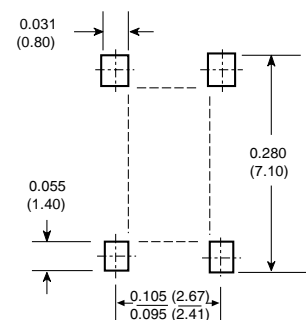
- Notes:
1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7
  2. Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2\*0.2"(5.0\*5.0mm) copper pad areas.

## 1 Amp Surface Mount Schottky Bridge Rectifier 20 to 100 Volts



DIM	DIMENSIONS				NOTE
	INC HES		MM		
	MIN	MAX	MIN	MAX	
A	.252	.276	6.40	7.00	
B	.095	.106	2.41	2.70	
C	.142	.165	3.60	4.20	
D	.179	.195	4.55	4.95	
E	.019	.031	0.50	0.80	
F	.090	.106	2.30	2.70	
G	.002	.008	0.05	0.20	
H	.027	.043	0.70	1.10	
J	.058	.062	1.47	1.57	
K	.195	.205	4.95	5.21	
M	.039	.049	0.99	1.24	
N	.006	.016	0.15	0.41	

### Mounting Pad Layout



MB12S thru MB110S

Fig.1 Forward Current Derating Curve

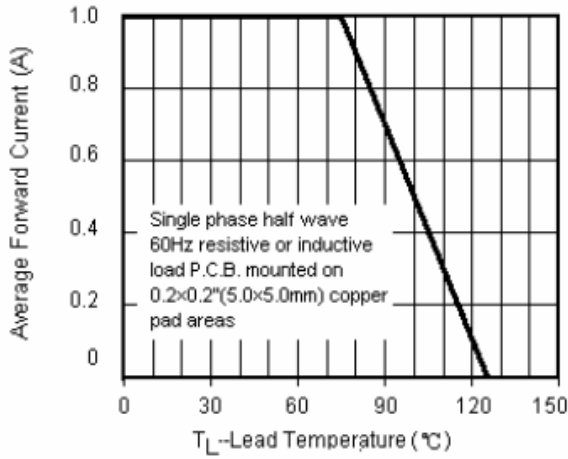


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

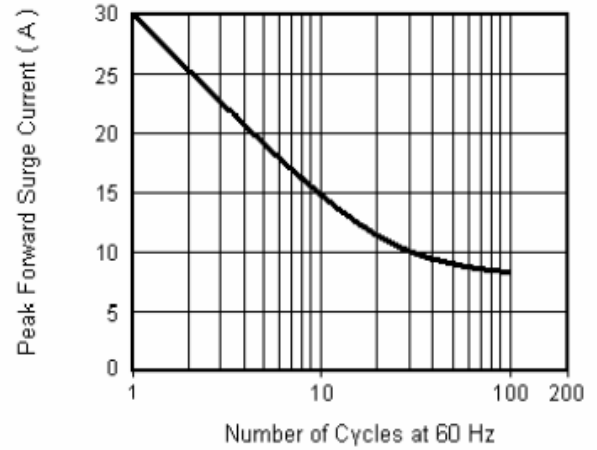


Fig.3 Typical Instantaneous Forward Characteristics

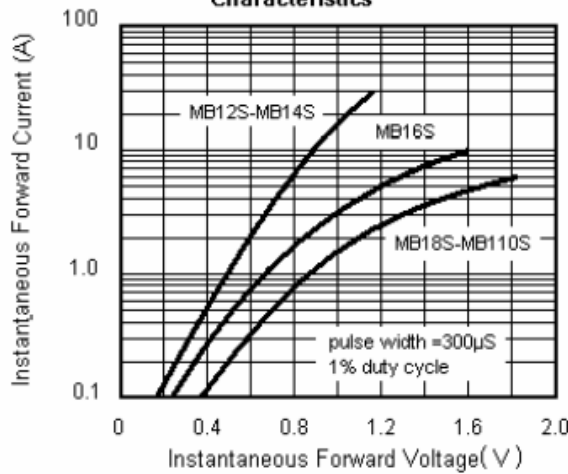
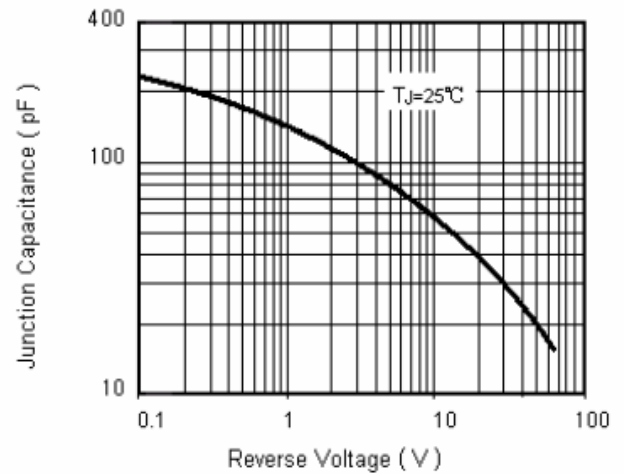


Fig.4 Typical Junction Capacitance





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## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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