



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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

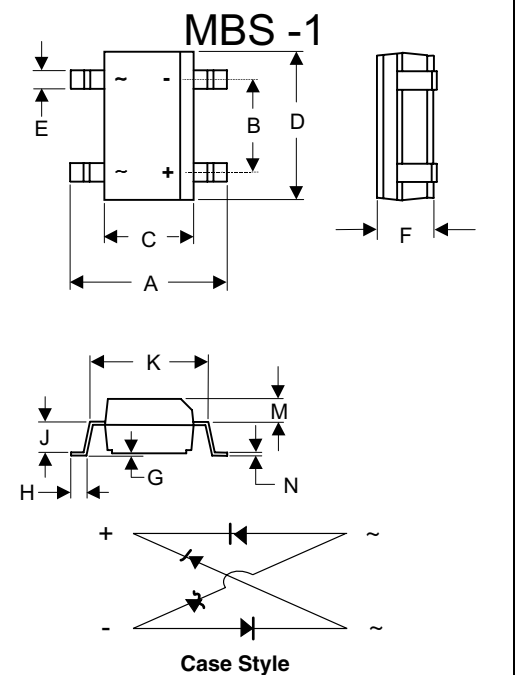
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MB12S | MB12S | 20V | 14V | 20V |
| MB14S | MB14S | 40V | 28V | 40V |
| MB16S | 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 | |

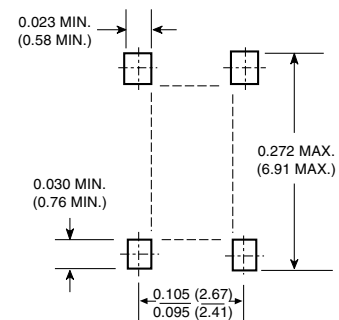
- Notes:
1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7
 2. Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2*0.2"(5.0*5.0mm) copper pad areas.

1 Amp Surface Mount Schottky Bridge Rectifier 20 to 100 Volts



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|------|------|------|
| | INC HES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .252 | .275 | 6.40 | 7.00 | |
| B | .095 | .106 | 2.41 | 2.70 | |
| C | .150 | .165 | 3.80 | 4.20 | |
| D | .179 | .195 | 4.55 | 4.95 | |
| E | .019 | .031 | 0.50 | 0.80 | |
| F | .090 | .106 | 2.30 | 2.70 | |
| G | .004 | .008 | 0.10 | 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

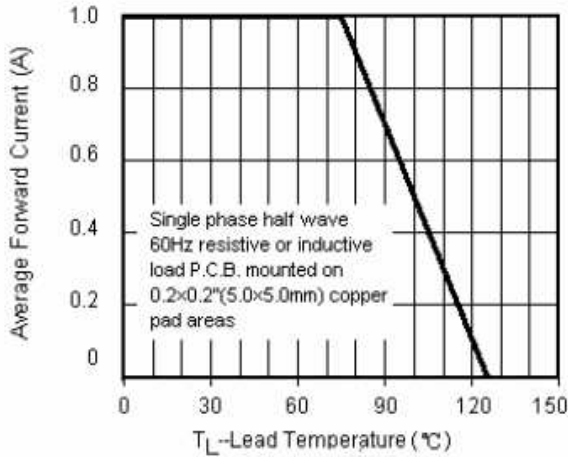


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

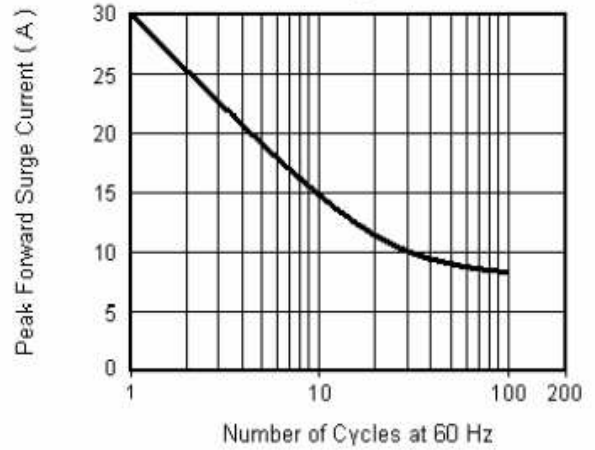


Fig.3 Typical Instantaneous Forward Characteristics

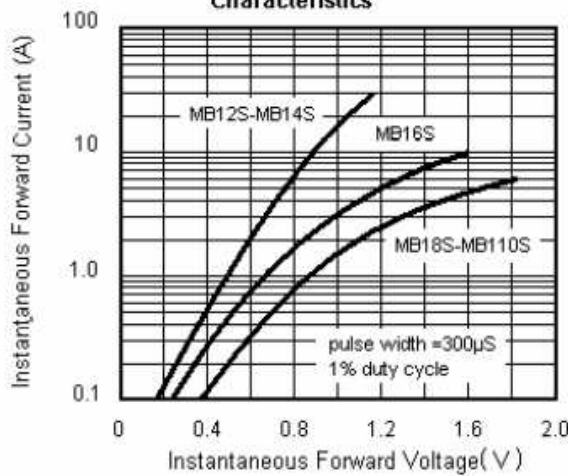
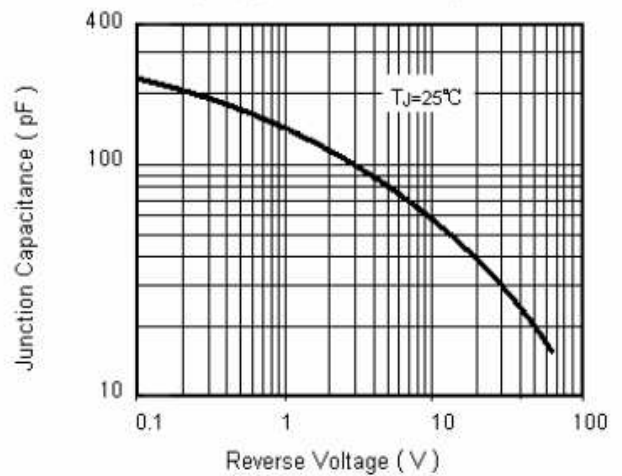


Fig.4 Typical Junction Capacitance





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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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