Micro Commercial Components

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# RMB2S THRU RMB6S

## 1/2 Amp Fast Recovery Glass Passivated Bridge Rectifier 200 to 600 Volts

## Features

- Surface Mount Package
- Glass Passivated Diode Construction
- Fast Recovery, Low Switching Loss
- 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)

## Maximum Ratings

- Operating Temperature: -55℃ to +150℃
- Storage Temperature: -55℃ to +150℃

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|---|---|---|---|---|
| RMB2S | RMB2S | 200V | 140V | 200V |
| RMB4S | RMB4S | 400V | 280V | 400V |
| RMB6S | RMB6S | 600V | 420V | 600V |

## Electrical Characteristics @ 25℃ Unless Otherwise Specified

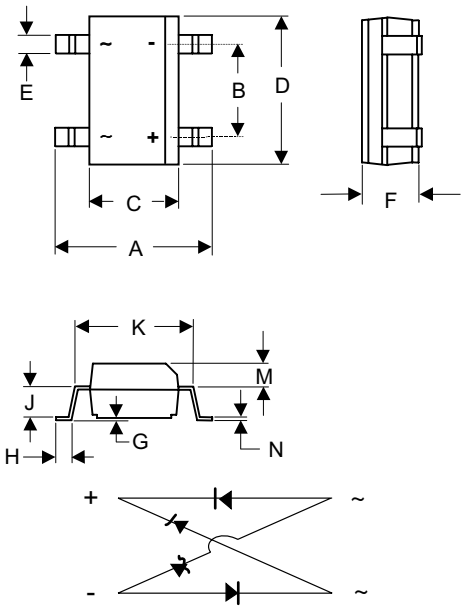
| | | | |
|---|---|---|---|
| Average Forward Current | $I_{F(AV)}$ | 0.5A(1)<br>0.8A(2) | $T_A$ = 30℃ |
| Peak Forward Surge Current | $I_{FSM}$ | 30A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | $V_F$ | 1.25V | $I_{FM}$ = 0.4A;<br>$T_A$ = 25℃ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$ | 5.0μA<br>100μA | $T_A$ = 25℃<br>$T_A$ = 125℃ |
| Typical Thermal Resistance Per Leg | $R_{\theta JA}$<br>$R_{\theta JA}$<br>$R_{\theta JL}$ | 85℃/W(1)<br>70℃/W(2)<br>20℃/W(1) | PC board with 12mm$^2$ copper pads |
| Typical Junction Capacitance | $C_J$ | 13pF | Measured at 1.0MHz, $V_R$=4.0V |
| Maximum Reverse Recovery Time<br>RMB2S-RMB4S<br>RMB6S | $t_{rr}$ | <br>150ns<br>250ns | $I_F$=0.5A, $I_R$=1.0A, $I_{rr}$=0.25A |
| Rating For Fusing | $I^2t$ | 5.0A$^2$s | t<8.30ms |

(1) On glass epoxy P.C.B. mounted on 0.05 x 0.05"(1.3 x 1.3mm) pads

(2) On aluminum substrate P.C.B. with an area of 0.8" x 0.8"(20 x 20mm) mounted on 0.05 x 0.05"(1.3x 1.3mm) solder pad

Notes:1.High Temperature Solder Exemption Applied,see EU Directive Annex Notes 7.

MBS-1




**Case Style**

| DIM | INCHES MIN | INCHES MAX | MM MIN | MM MAX | NOTE |
|---|---|---|---|---|---|
| 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**

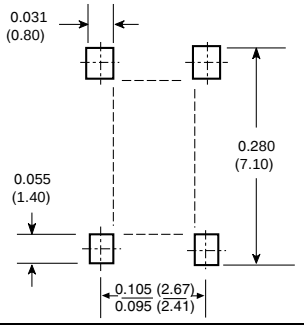


**Fig. 1 – Maximum Forward Current Derating Curve**

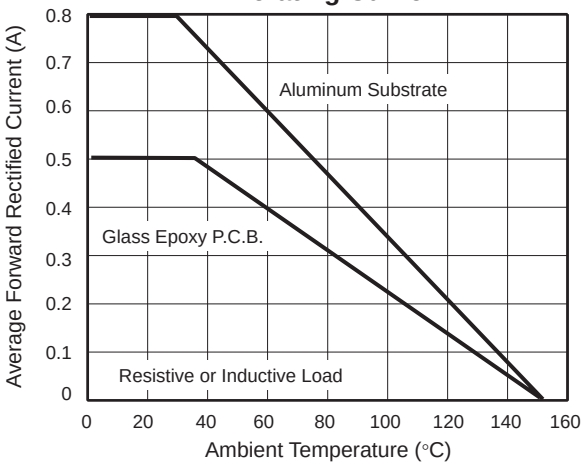



**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**

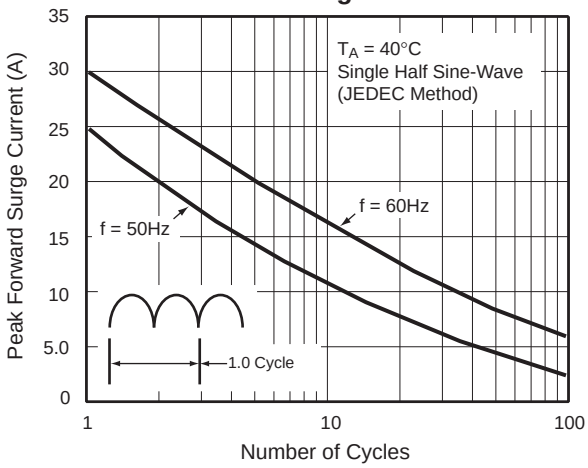



**Fig. 3 – Typical Instantaneous Forward Characteristics**

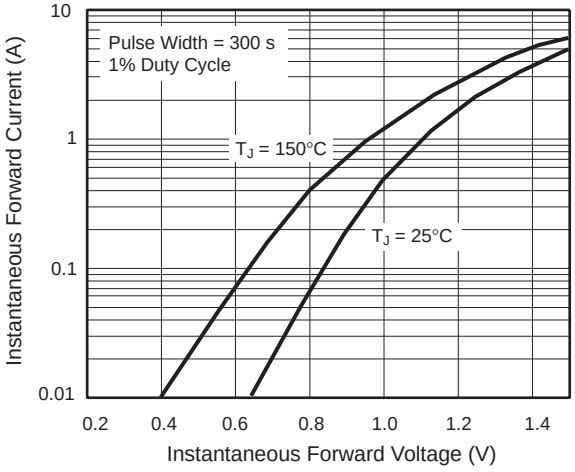



**Fig. 4 – Typical Reverse Leakage Characteristics Per Leg**

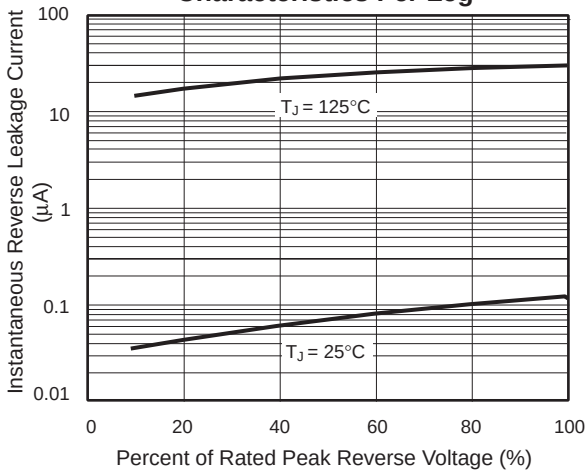
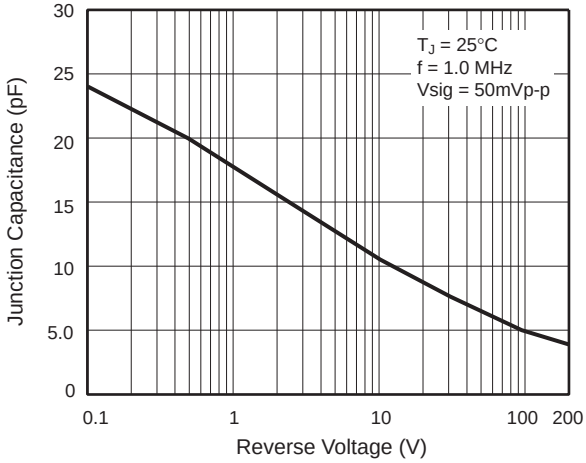



**Fig. 5 – Typical Junction Capacitance**



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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