

RMB2S THRU RMB6S

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°C to +150°C
- Storage Temperature: -55°C to +150°C

| 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°C Unless Otherwise Specified

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

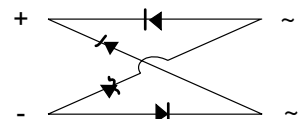
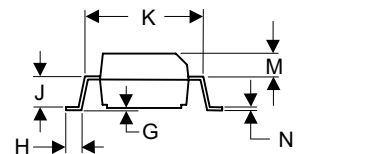
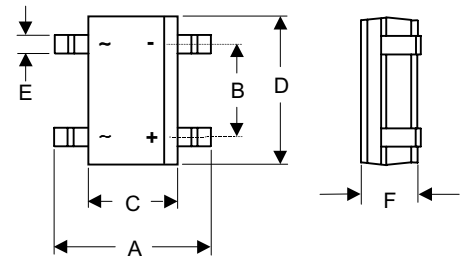
(1) On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads

(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" (1.3 x 1.3mm) solder pad

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

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

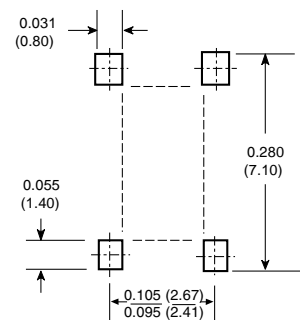
MBS-1



Case Style

| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|------|------|------|
| | INC HES | | MM | | |
| 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



RMB2S thru RMB6S

Fig. 1 – Maximum Forward Current Derating Curve

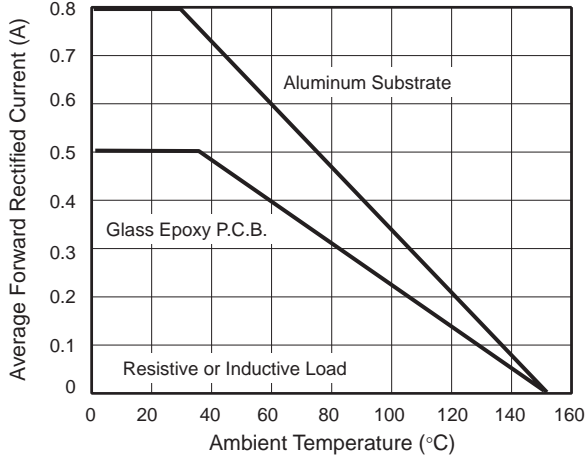


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

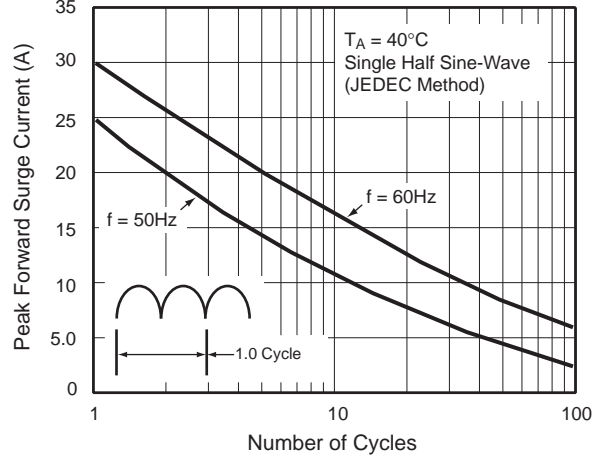


Fig. 3 – Typical Instantaneous Forward Characteristics

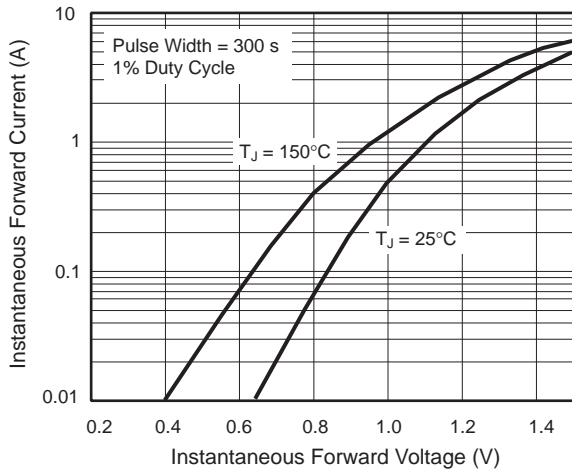


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

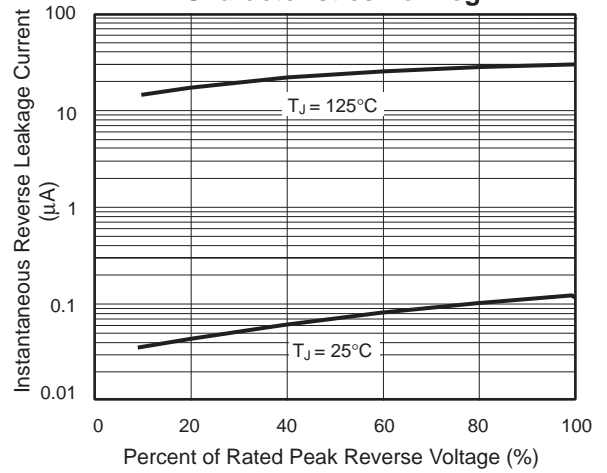
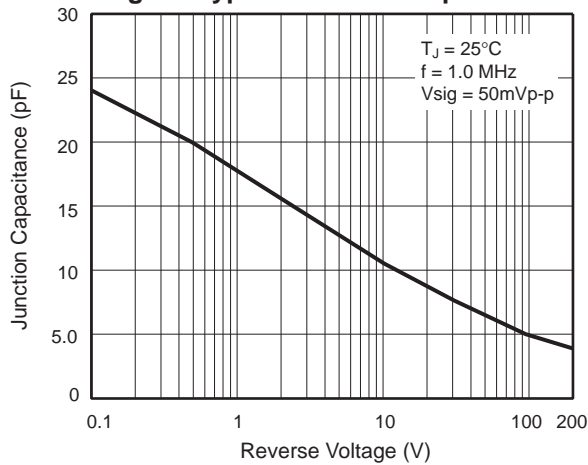


Fig. 5 – Typical Junction Capacitance





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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

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