

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	$I_{FM} = 0.4A$; $T_A = 25^\circ\text{C}$
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, $V_R = 4.0V$
Maximum Reverse Recovery Time RMB2S-RMB4S RMB6S	t_{rr}	150ns 250ns	$I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$
Rating For Fusing	I^2t	5.0A ² s	$t < 8.30ms$

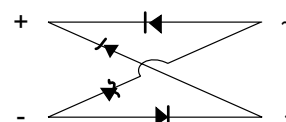
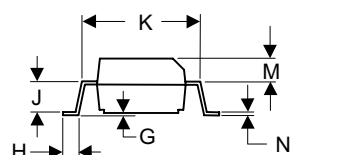
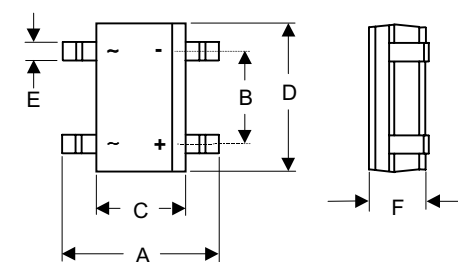
(1) On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads

(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" (1.3 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

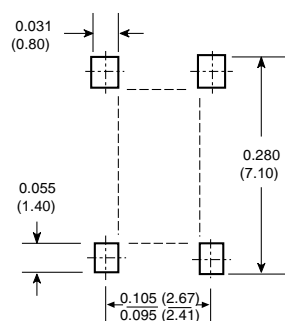
MBS-1



Case Style

DIM	INC HES		MM		NOTE
	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



RMB2S thru RMB6S

Fig. 1 – Maximum Forward Current Derating Curve

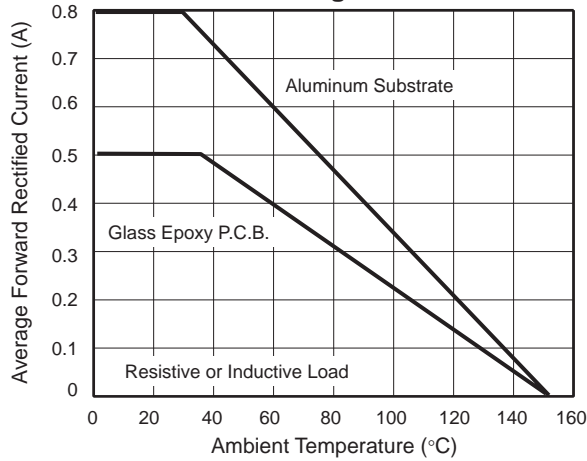


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

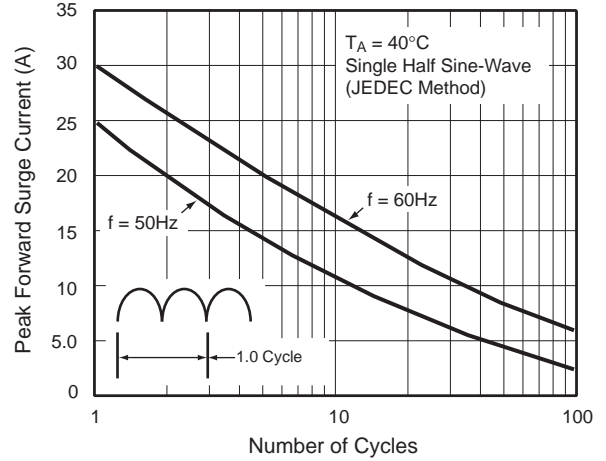


Fig. 3 – Typical Instantaneous Forward Characteristics

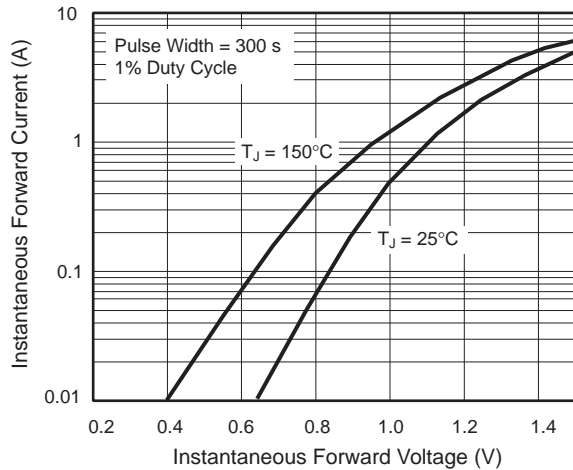


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

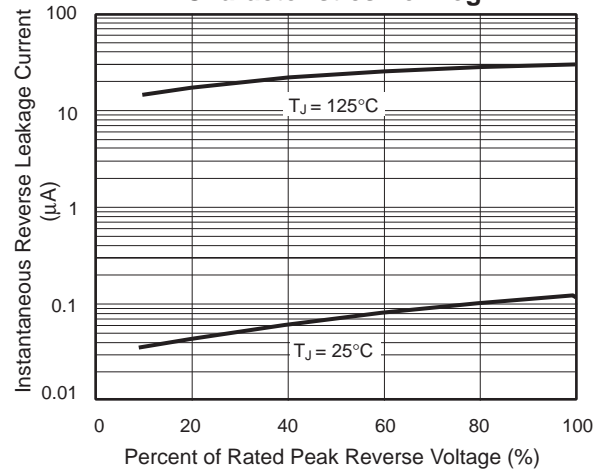
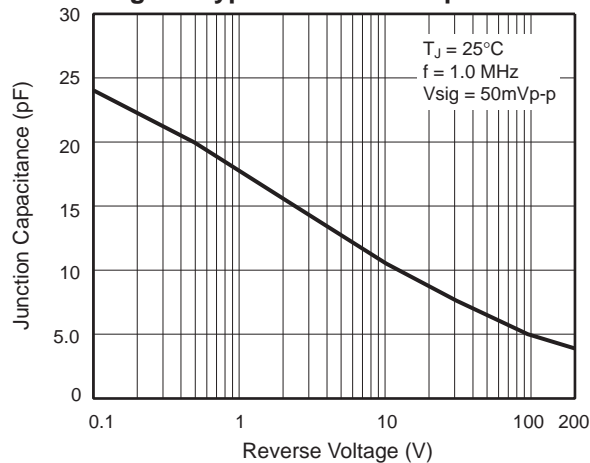


Fig. 5 – Typical Junction Capacitance



Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.