



# RMSB40B THRU RMSB40M

Voltage Range - 100 to 1000 Volts Current - 4.0 Ampere

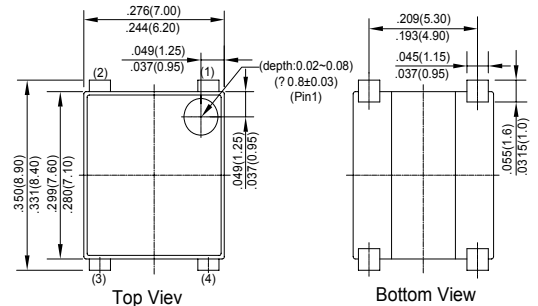
## GLASS PASSIVATED SURFACE MOUNT BRIDGE RECTIFIERS

### Features

- ◆ Glass Passivated Chip Junction
- ◆ Reverse Voltage - 100 to 1000 V
- ◆ Forward Current- 4.0 A
- ◆ Fast reverse recovery time
- ◆ Designed for Surface Mount Application

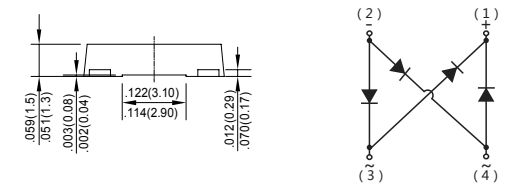
**UMSB**

**ROHS**  
COMPLIANT



### Mechanical Data

Case: JEDEC UMSB molded plastic body  
 Terminals: Solderable per MIL-STD-750, Method 2026A  
 Polarity: Polarity symbol marking on body  
 Mounting Position: Any  
 Weight : 0.00825 ounce, 0.234 grams



Dimensions in inches and (millimeters)

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbols	MDD	MDD	MDD	MDD	MDD	MDD	Units
		RMSB40B	RMSB40D	RMSB40G	RMSB40J	RMSB40K	RMSB40M	
Marking Code								
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	4						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	95						A
Maximum Forward Voltage at 4.0 A	$V_F$	1.3						V
Maximum DC Reverse Current @ $T_a=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_a=125^\circ\text{C}$	$I_R$	5.0 200						$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_j$	50						pF
Typical Thermal Resistance ( Note2 )	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	60 15 25						$^\circ\text{C/W}$
Maximum Reverse Recovery Time ( Note3 )	$t_{rr}$	150			250	500		ns
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150						$^\circ\text{C}$

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with  $4 \times 1.5 \times 1.5$  ( 3.81  $\times$  3.81 cm ) copper pad areas.

3. Measured with  $I = 0.5 \text{ A}$ ,  $I = 1 \text{ A}$ ,  $I_{rr} = 0.25 \text{ A}$ .

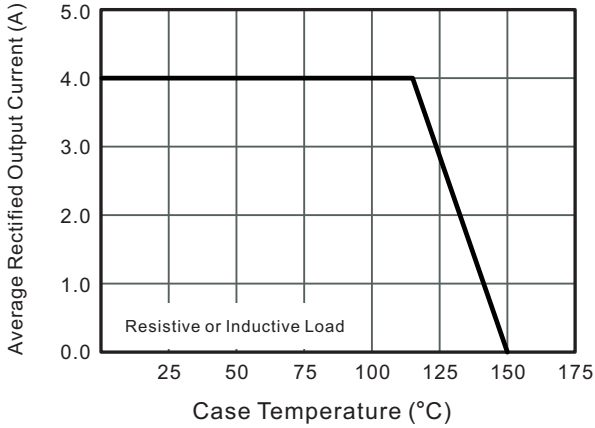


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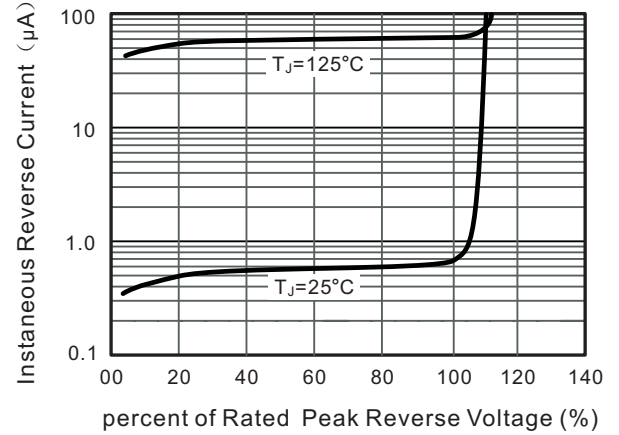
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## Typical Characteristics

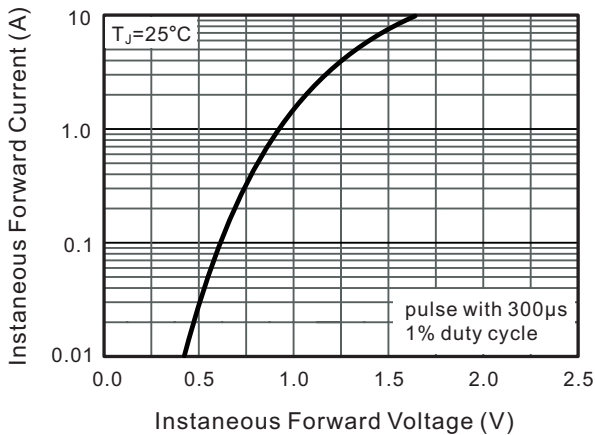
**Fig.1 Average Rectified Output Current Derating Curve**



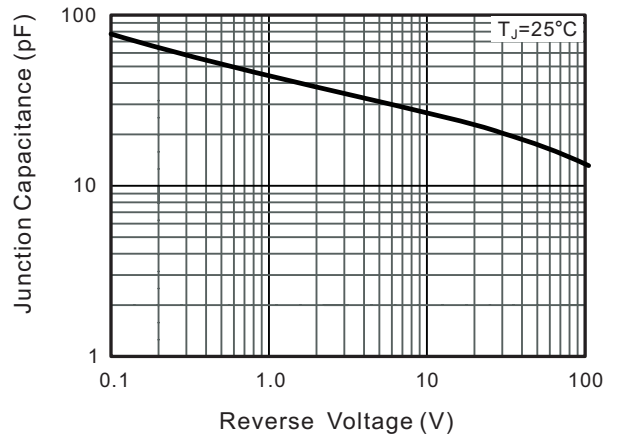
**Fig.2 Typical Reverse Characteristics**



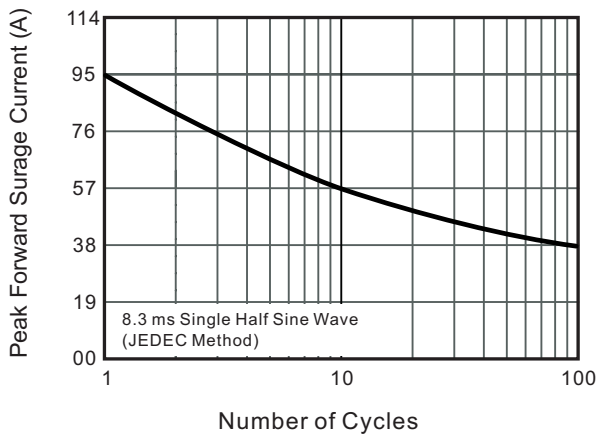
**Fig.3 Typical Instantaneous Forward Characteristics**



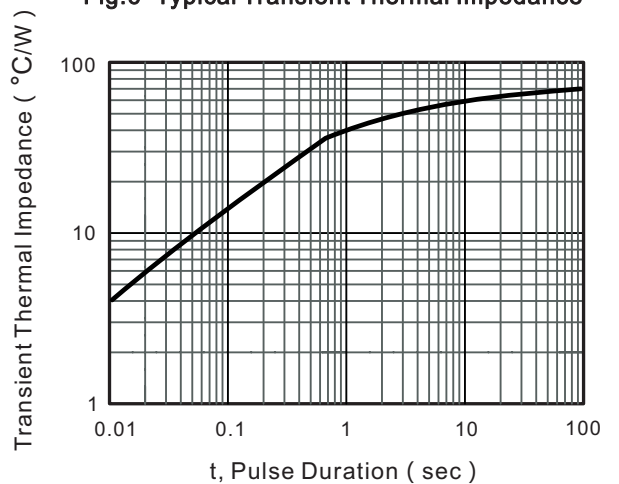
**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.6- Typical Transient Thermal Impedance**



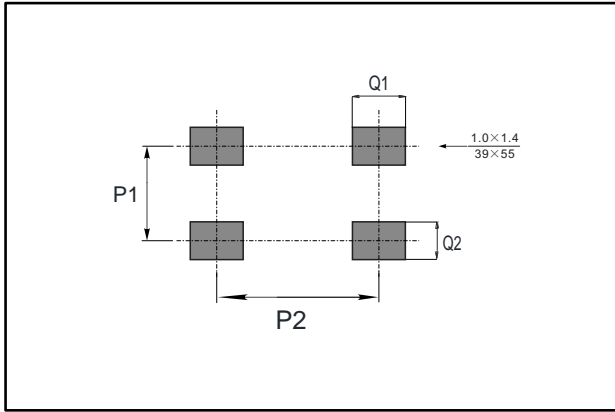
The curve above is for reference only.



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## Suggested Pad Layout



Dim	Min
P1	5.1
P2	7.1
Q1	1.8
Q2	1.3