

## UMSB Plastic-Encapsulate Bridge Rectifier

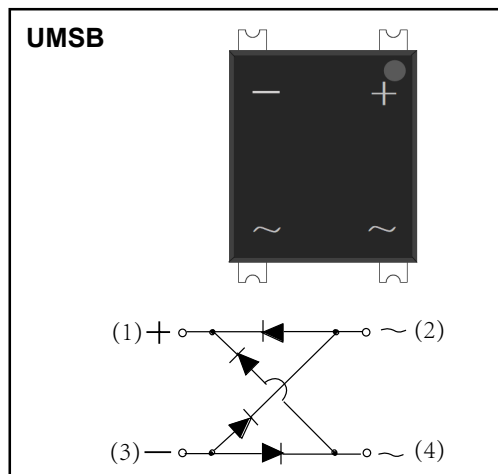
### Fast Recovery Rectifier

#### Features

- $I_o$  4A
- VRRM 50V-1000V
- Low forward voltage drop
- High surge current capability
- Glass passivated chip junction

#### Mechanical Data

- Case: UMSB molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode end



#### Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	RMSB40						
				A	B	D	G	J	K	M
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		50	100	200	400	600	800	1000
Maximum RMS Voltage	$V_{RMS}$	V		35	70	140	280	420	560	700
Maximum DC blocking Voltage	$V_{DC}$	V		50	100	200	400	600	800	1000
Average Forward Current	$I_{F(AV)}$	A	60HZ Half-sine wave, Resistance load, $T_a = 60^\circ\text{C}$	4.0						
Surge(Non-repetitive)Forward Current	$I_{FSM}$	A	60Hz Half-sine wave, 1 cycle, $T_a = 25^\circ\text{C}$	100						
Junction Temperature	$T_J$	$^\circ\text{C}$		-55~+150						
Storage Temperature	$T_{STG}$	$^\circ\text{C}$		-55 ~ +150						

#### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	RMSB40						
				A	B	D	G	J	K	M
Forward voltage	$V_F$	V	$I_F = 4.0\text{A}$	1,3						
Maximum reverse recovery time	$T_{rr}$	ns	$I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$	150			250		500	
Peak Reverse Current	$I_{RRM1}$	$\mu\text{A}$	$V_{RM} = V_{RRM}$	$T_a = 25^\circ\text{C}$						
	$I_{RRM2}$			$T_a = 125^\circ\text{C}$						
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ\text{C/W}$	Between junction and ambient				55			
	$R_{\theta J-L}$		Between junction and terminal				15			
	$R_{\theta J-C}$		Between junction and case				10			

# Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

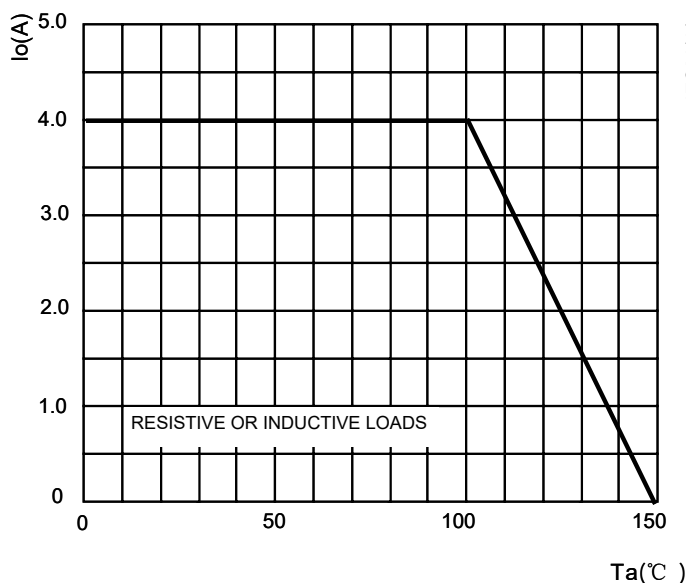


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

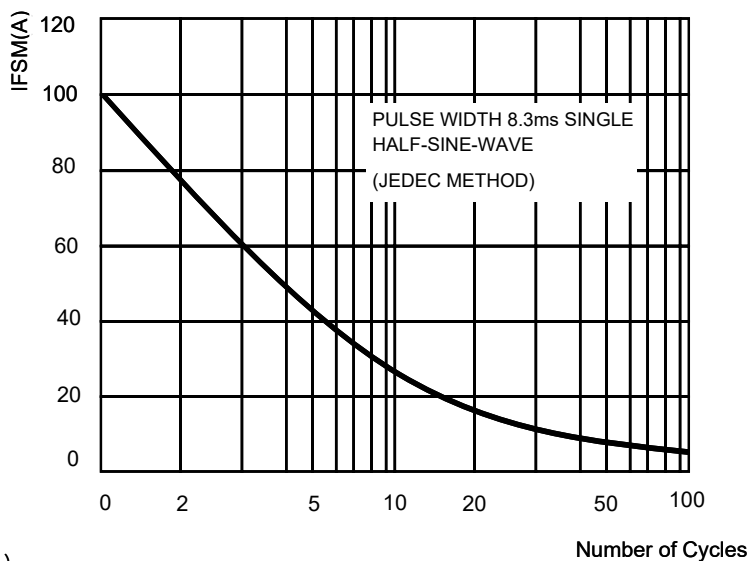


FIG.3: TYPICAL FORWARD CHARACTERISTICS

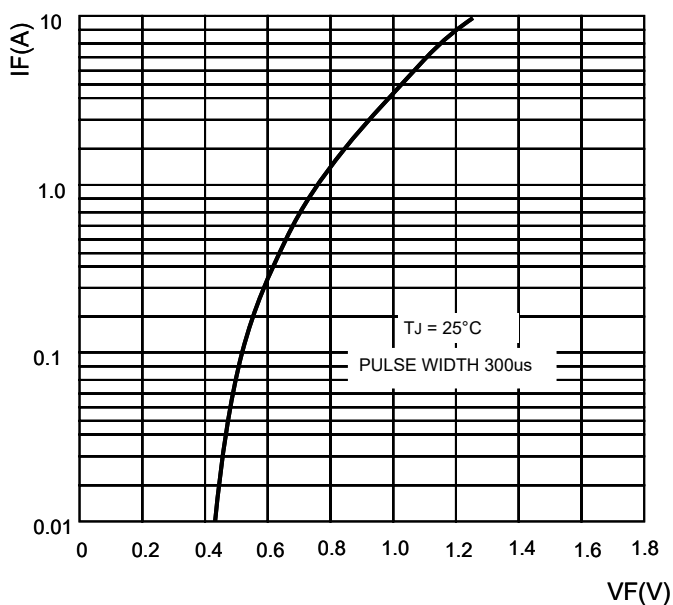
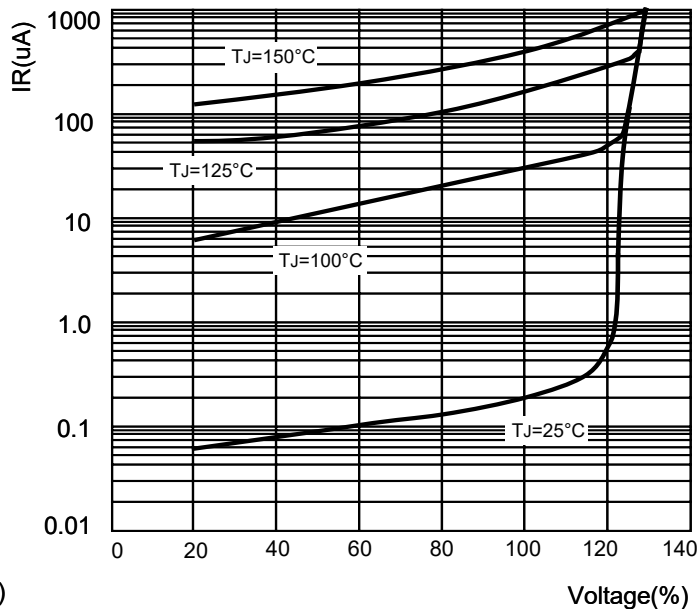
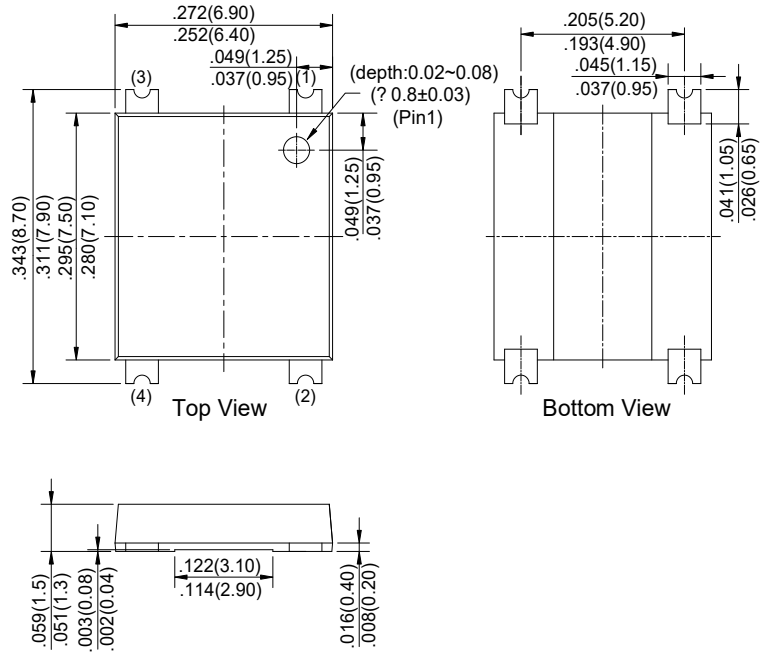


FIG.4: TYPICAL REVERSE CHARACTERISTICS

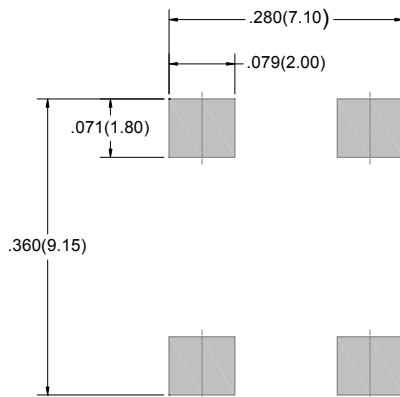


## UMSB Package Outline Dimensions



Dimensions in inches and (millimeters)

## UMSB Suggested Pad Layout



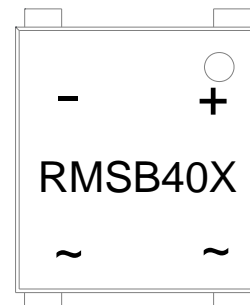
### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$ mm.
3. The pad layout is for reference purposes only.

## Ordering Information

Part Number	Package	Shipping Quantity
RMSB40A- RMSB40M	UMSB	3000/tape&Reel

## Marking Diagram



X: From A To M