

UMSB Plastic-Encapsulate Bridge Rectifier

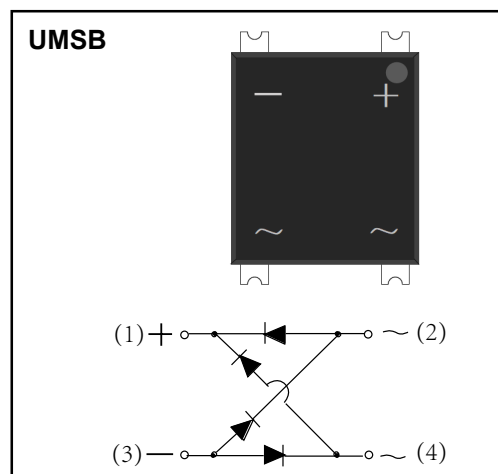
**HALOGEN
FREE**

Features

- I_O 3A
- V_{RRM} 1000V
- Low forward voltage drop
- High surge current capability
- Glass passivated chip junction

Mechical Data

- Case: USB 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	Conditions	RMSB30MA
Repetitive Peak Reverse Voltage	V_{RRM}	V		1000
Maximum RMS Voltage	V_{RMS}	V		700
Maximum DC Blocking Voltage	V_{DC}	V		1000
Average Rectified Output Current	I_O	A	60Hz sine wave, R-load, $T_a=60^\circ\text{C}$	3.0
Surge(Non-repetitive)Forward Current	I_{FSM}	A	8.3ms half sine wave, 1 cycle, $T_j=25^\circ\text{C}$	110
Current Squared Time	I^2t	A^2S	$1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode	50.2
Operation Junction and Storage Temperature Range	T_J, T_{stg}	$^\circ\text{C}$		-55 ~+150

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

Item	Symbol	Unit	Test Condition		Max
Maximum Peak Forward Voltage	V_{FM}	V	$I_{FM}=3.0\text{A}$, Pulse measurement, Rating of per diode		1.3
Maximum Reverse Recovery Time	T_{RR}	ns	Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$		250
Maximum Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$, Pulse measurement, Rating of per diode	$T_A=25^\circ\text{C}$	5.0
	I_{RRM2}	μA		$T_A=125^\circ\text{C}$	500
Thermal Resistance	$R_{\theta J-A}$	$^\circ\text{C/W}$	Between junction and ambient		55
	$R_{\theta J-L}$		Between junction and lead		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

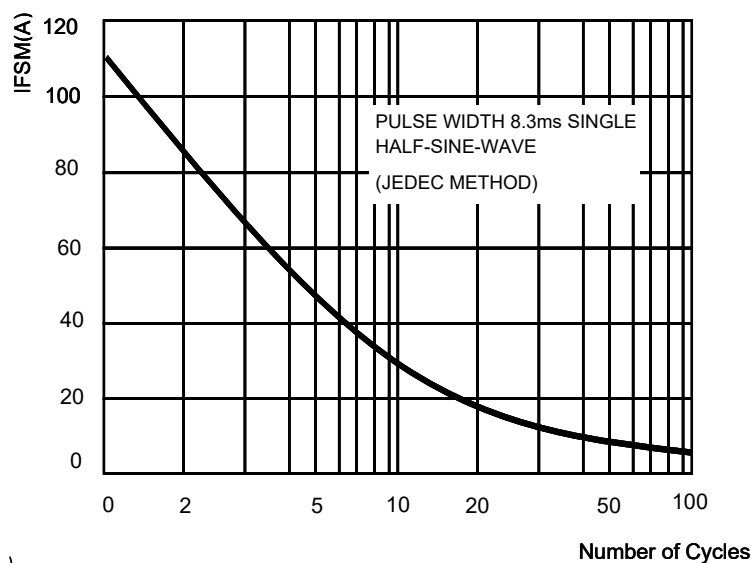


FIG.3: TYPICAL FORWARD CHARACTERISTICS

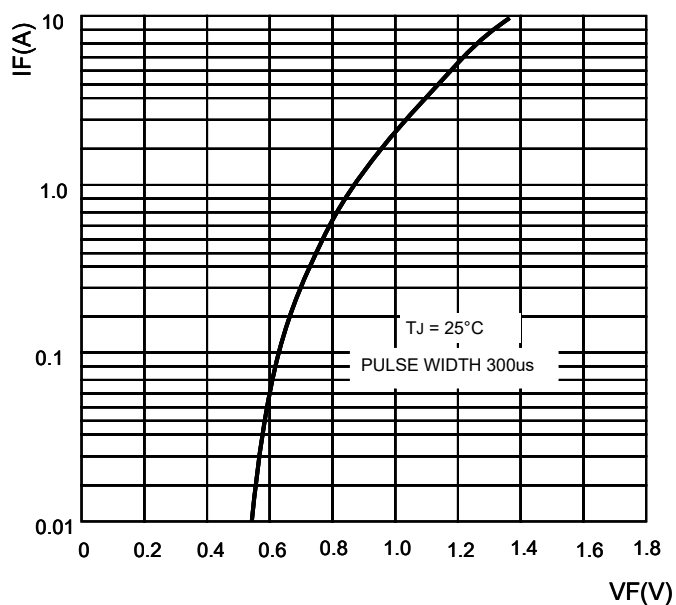
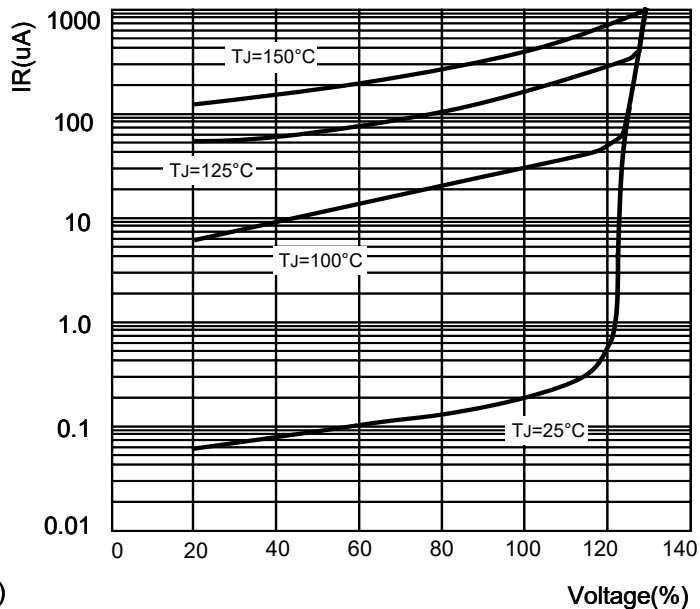
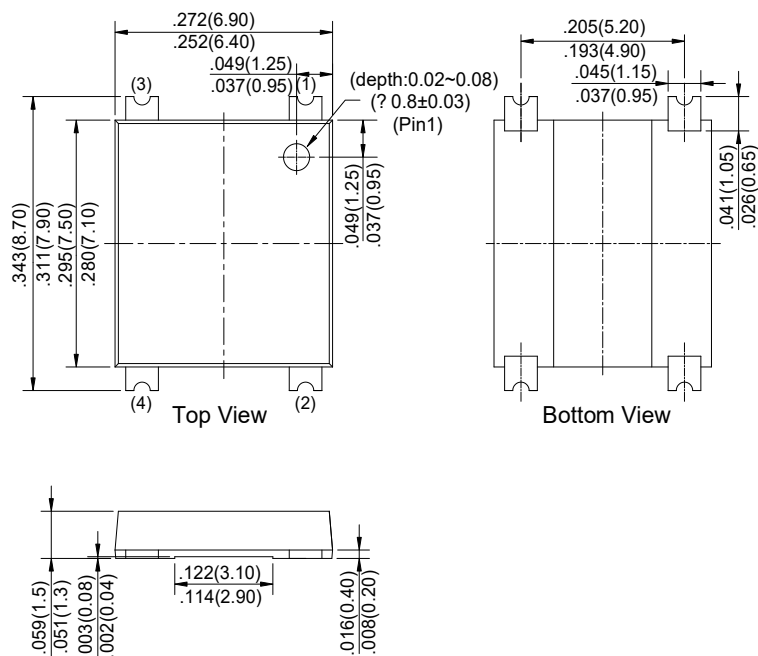


FIG.4: TYPICAL REVERSE CHARACTERISTICS

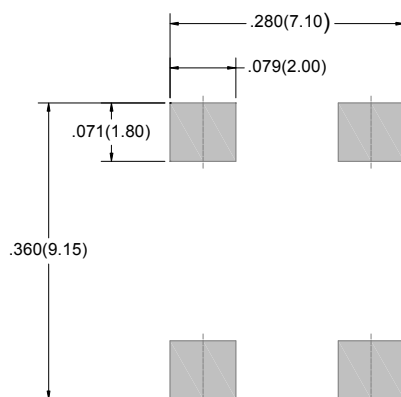


UMSB Package Outline Dimensions



Dimensions in inches and (millimeters)

UMSB Suggested Pad Layout



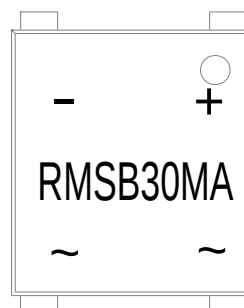
Note:

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

Ordering Information

Part Number	Package	Shipping Quantity
RMSB30MA	UMSB	3000/tape&Reel

Marking Diagram



X: From A To M

Reel Taping Specifications For Surface Mount Devices-UMSB

