

UMSB Plastic-Encapsulate Bridge Rectifier

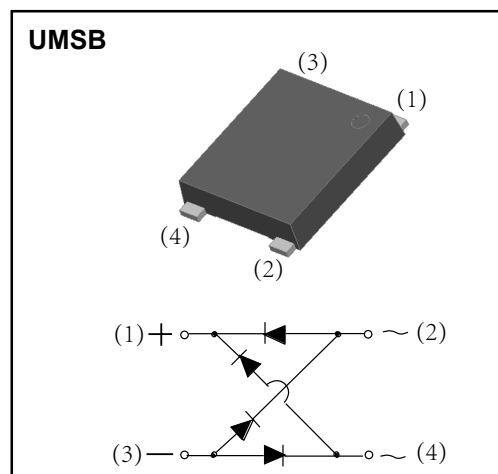
**HALOGEN
FREE**

Features

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

Mechical 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	MSB40						
				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, $T_a = 100^\circ\text{C}$	4.0						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a = 25^\circ\text{C}$	100						
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	41.5						
Junction Temperature	T_J	$^\circ\text{C}$		$-55 \sim +150$						
Storage Temperature	T_{STG}	$^\circ\text{C}$		$-55 \sim +150$						

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

Item	Symbol	Unit	Test Condition	MSB40						
				A	B	D	G	J	K	M
Forward voltage	V_F	V	$I_F = 4.0\text{A}$	1.1						
Peak Reverse Current	I_{RRM1}	μA	$V_{RM} = V_{RRM}$	$T_a = 25^\circ\text{C}$						
	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 DERATING CURRENT

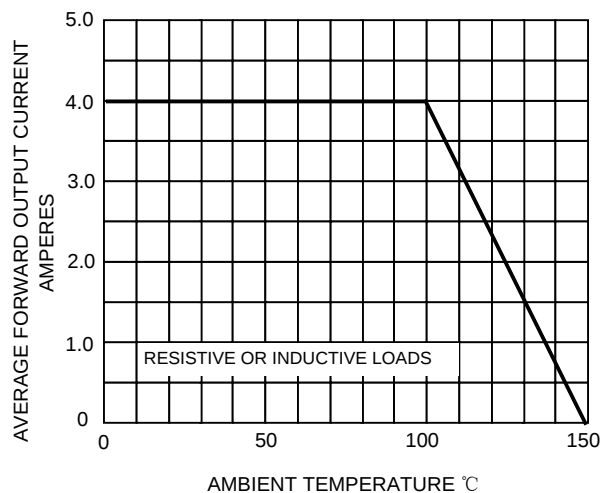


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

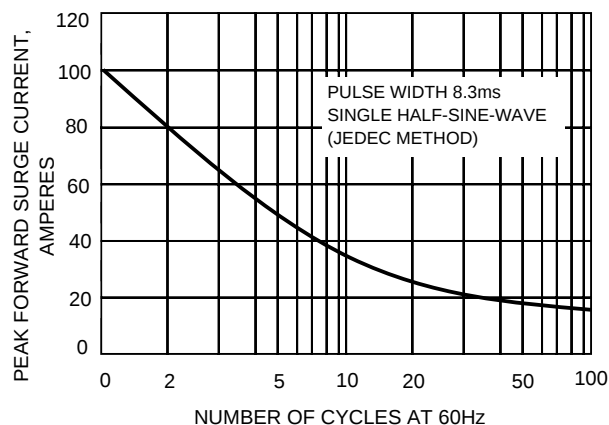


FIG.3-TYPICAL FORWARD CHARACTERISTICS

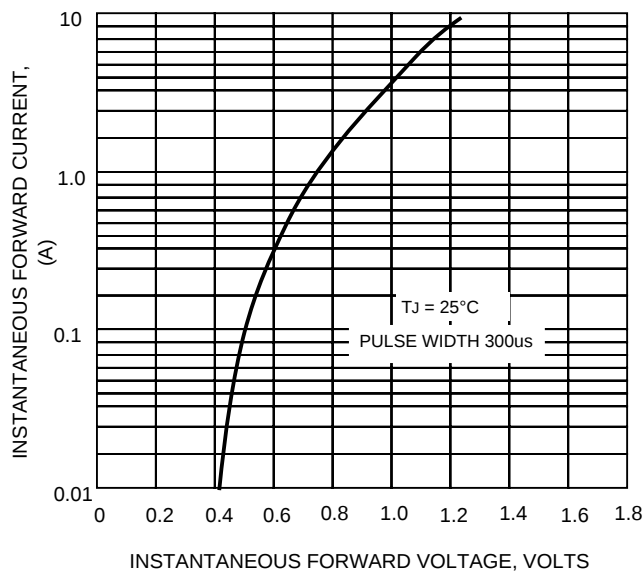
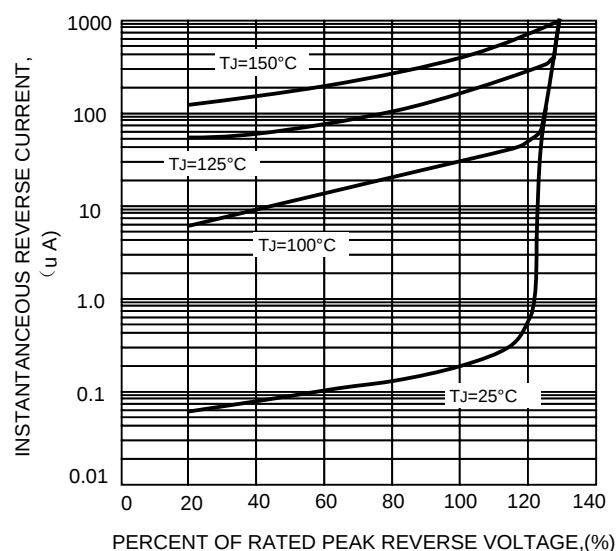
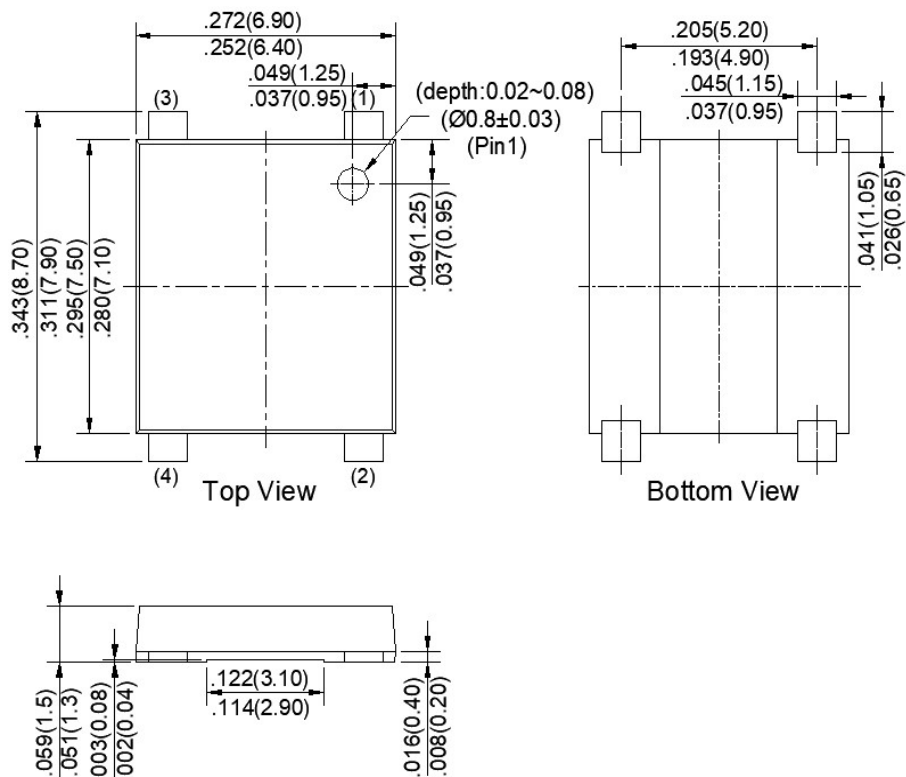


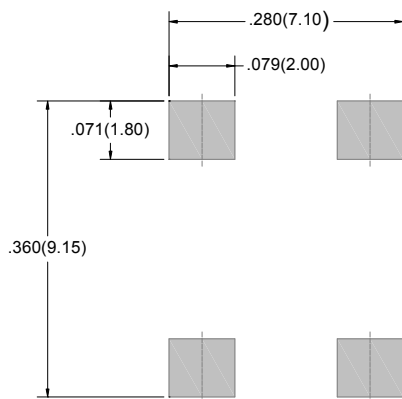
FIG.4-TYPICAL REVERSE CHARACTERISTICS



UMSB Package Outline Dimensions



UMSB Suggested Pad Layout



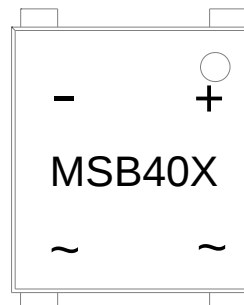
Note:

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
MSB40A- MSB40M	UMSB	3000/tape&Reel

Marking Diagram



X: From A To M

Reel Taping Specifications For Surface Mount Devices-UMSB

