

## UMSB Plastic-Encapsulate Bridge Rectifier

### ● Features

- Ideal for printed circuit board
- Glass passivated junction chip
- High surge current capability
- Low reverse leakage
- High temperature soldering guaranteed: 260/10 seconds at terminals

**Reverse Voltage**  
50-1000 V  
**Forward Current**  
6.0 Ampere

### ● Applications

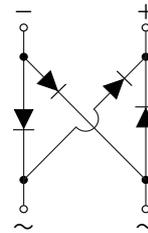
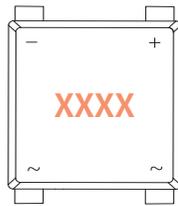
General purpose 1 phase Bridgerectifier applications

### ● Mechanical Data

- Case: UMSB  
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbol marking on body



### ● Function Diagram



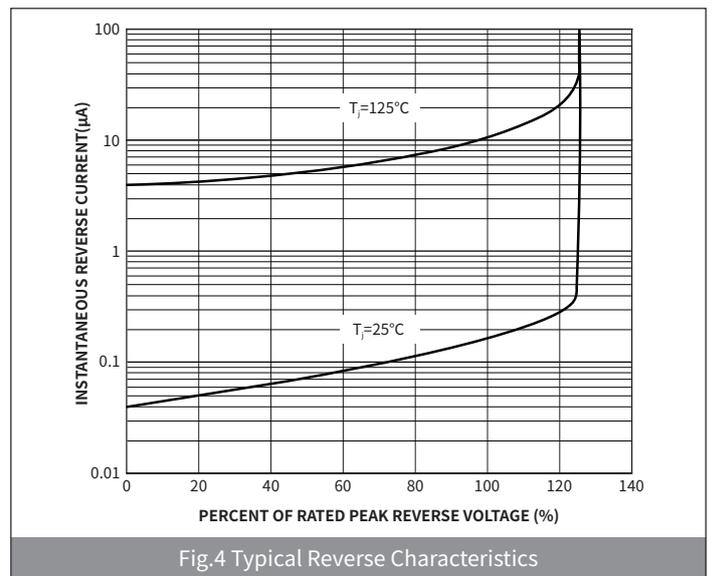
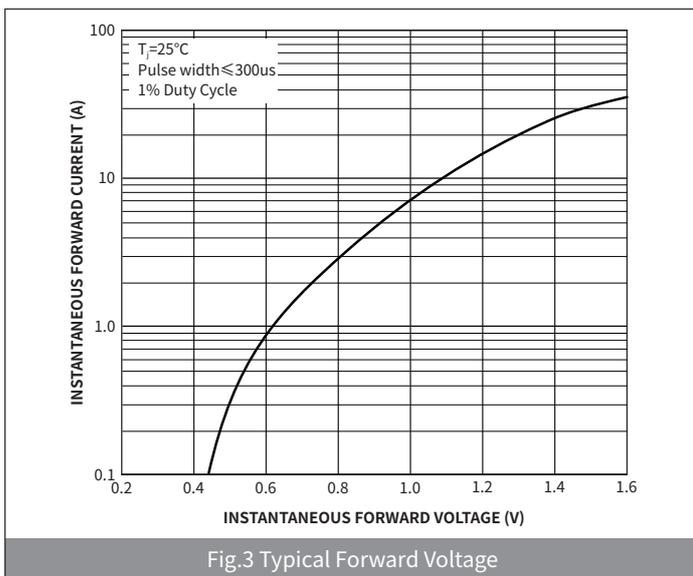
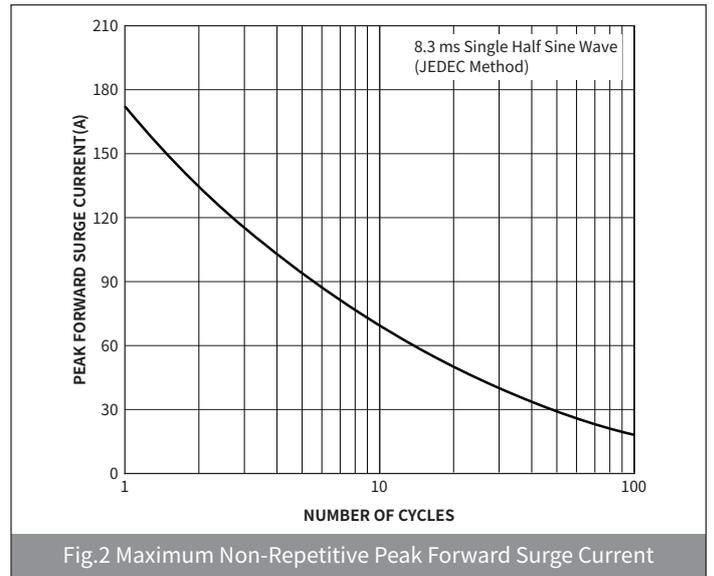
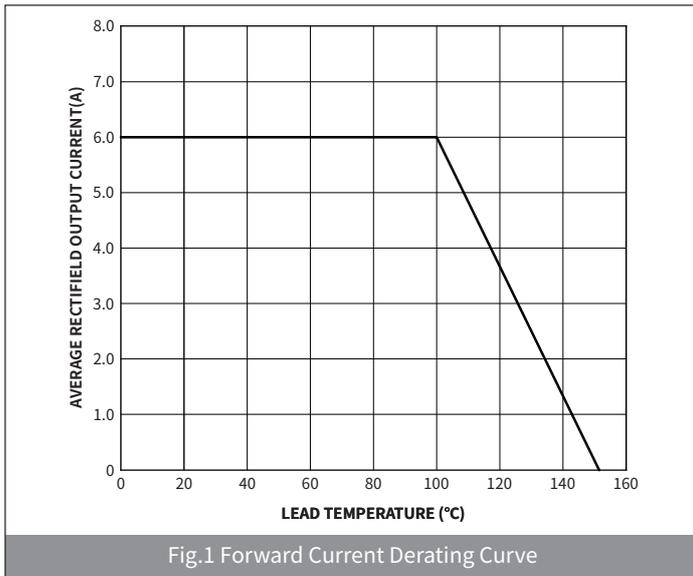
### ● Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MSB601	MSB602	MSB603	MSB604	MSB605	MSB606	MSB607
Device marking code			MSB601	MSB602	MSB603	MSB604	MSB605	MSB606	MSB607
Maximum 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
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1)	$I_{F(AV)}$	A	6.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	$I_{FSM}$	A	175						
Rating for fusing (t=8.3ms, Ta=25 °C )	$I^2t$	A <sup>2</sup> S	127						
Storage temperature	$T_{stg}$	°C	-55 ~ +150						
Junction temperature	$T_j$	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	55						

● **Electrical Characteristics** (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	MSB601	MSB602	MSB603	MSB604	MSB605	MSB606	MSB607
Maximum instantaneous forward voltage	$I_F=6.0A$	$V_F$	V	1.1						
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^\circ C$	$I_{R1}$	$\mu A$	5.0						
	$V_R=V_{DC}, T_A=125^\circ C$	$I_{R2}$		500						
Typical junction capacitance	4.0V DC, 1MHz	$C_J$	pF	45						

● **Ratings And Characteristics Curves** (Ta=25°C Unless otherwise specified)



# MSB601 THRU MSB607

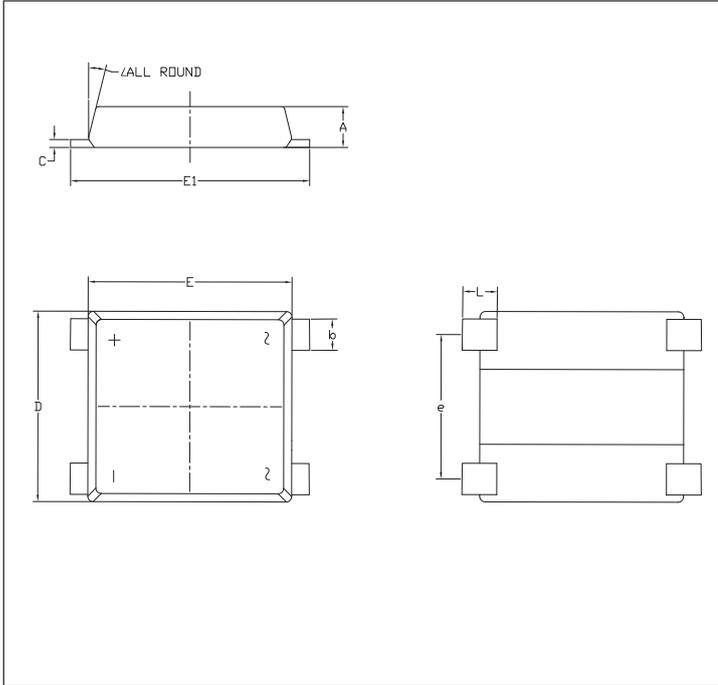
UMSB 6.0 AMP Plastic-Encapsulate Bridge Rectifier

## ● Ordering Information

PACKAGE	PACKAGE CODE	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
UMSB	R3	3000	6000	36000	13"

## ● Package Outline Dimensions (UMSB)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.3	1.5	0.051	0.059
C	0.17	0.40	0.007	0.016
D	6.2	7.0	0.244	0.276
E	7.1	7.6	0.280	0.299
E1	7.9	8.6	0.311	0.338
L	0.65	1.05	0.026	0.041
e	4.9	5.3	0.193	0.209
b	0.95	1.15	0.037	0.045
$\theta$	10°			



## ● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
N	5.1	5.3	0.201	0.209
M	7.1	7.3	0.280	0.287
X	1.8	2.0	0.071	0.079
Y	1.3	1.5	0.051	0.059

