

UMSB Plastic-Encapsulate Bridge Rectifier

● Features

- Ideal for printed circuit board
- Glass passivated junction chip
- High surge current capability
- Low reverse leakage current

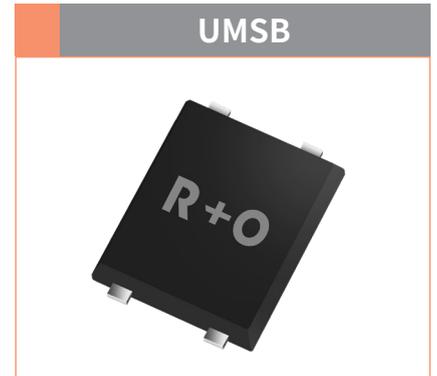
Reverse Voltage
50-1000 V
Forward Current
4.0 Ampere

● Applications

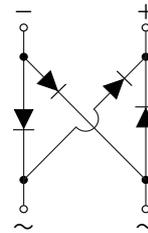
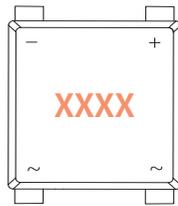
General purpose 1 phase Bridgerectifier applications

● 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



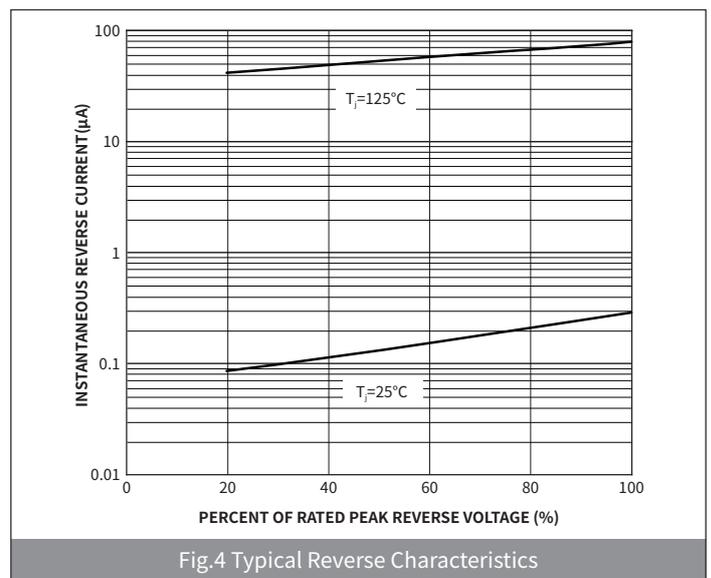
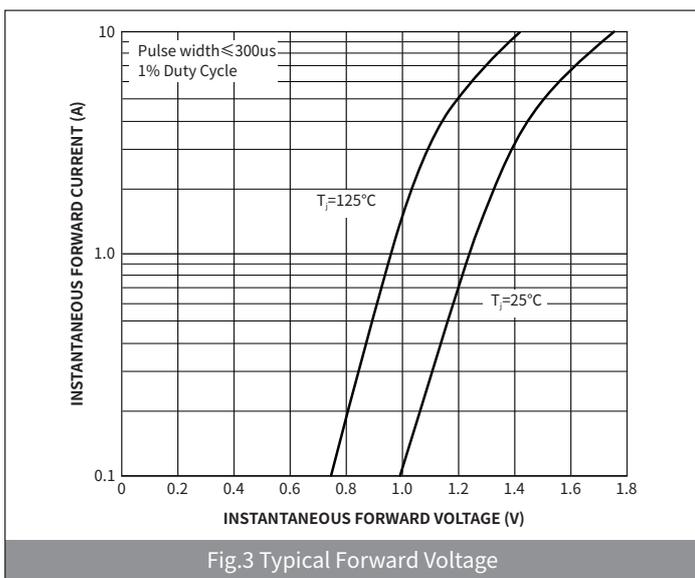
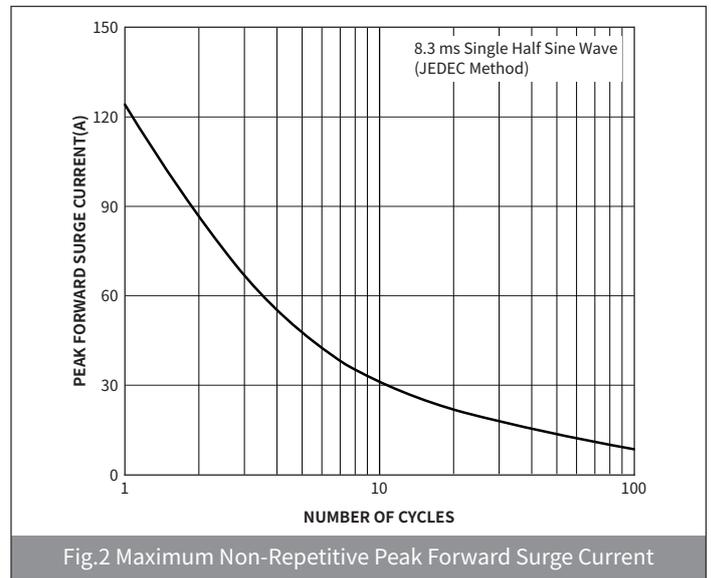
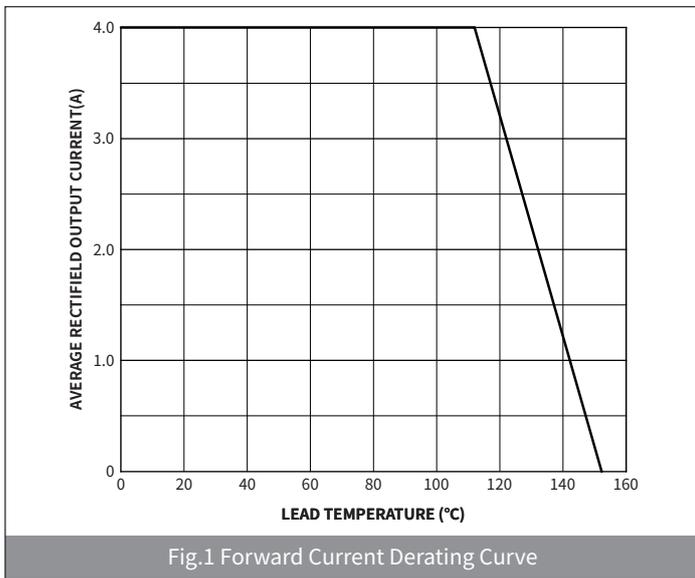
● Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	RMSB4005	RMSB401	RMSB402	RMSB404	RMSB406	RMSB408	RMSB410
Device marking code			RMSB4005	RMSB401	RMSB402	RMSB404	RMSB406	RMSB408	RMSB410
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	4.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	125						
Rating for fusing (t=8.3ms, Ta=25 °C)	I^2t	A ² S	64.8						
Storage temperature	T_{stg}	°C	-55 ~ +150						
Junction temperature	T_j	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta J-C}$	°C /W	8						
	$R_{\theta J-L}$		15						
	$R_{\theta J-A}$		25						

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	RMSB4005	RMSB401	RMSB402	RMSB404	RMSB406	RMSB408	RMSB410
Maximum instantaneous forward voltage	$I_F=2.0A$	V_F	V	1.3						
	$I_F=4.0A$			1.5						
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_J=25^\circ C$	I_{R1}	μA	5						
	$V_R=V_{DC}, T_J=125^\circ C$	I_{R2}		500						
Typical junction capacitance	4.0V DC, 1MHz	C_J	pF	35						
Maximum reverse recovery time	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	T_{RR}	nS	150			250		500	

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



RMSB4005 THRU RMSB410

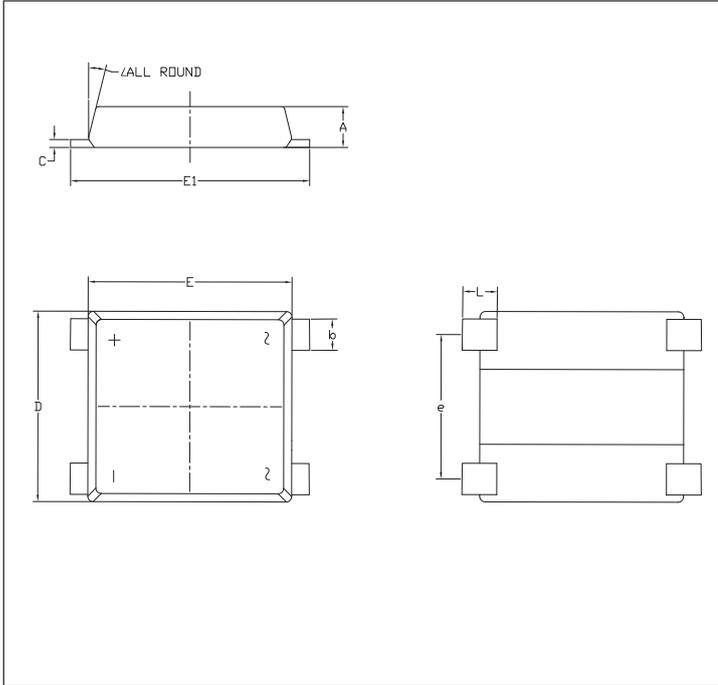
UMSB 4.0 AMP Plastic-Encapsulate Bridge Rectifier

● 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
θ	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

