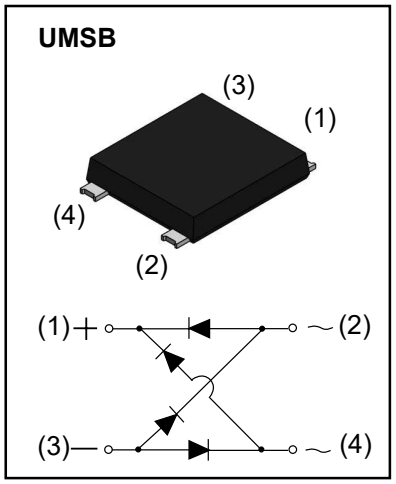
SZCJ

Shenzhen Changji Semiconductor Co., LTD.

UMSB Plastic-Encapsulate Bridge Rectifier

RMSB40M Bridge Rectifier

PRIMARY CHARACTERISTICS		
PARAMETER	**VALUE**	**UNIT**
$I_{F(AV)}$	4	A
V_{RWM}	1000	V
I_{FSM}	100	A
T_j	150	℃
V_F	1.3	V



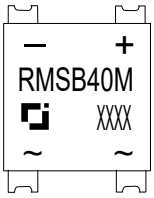
FEATURES

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

Mechanical Data

- Case: UMSB
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Polarity symbol marking on body

MARKING



RMSB40M = Device code

XXXX = Code

Limiting Values (Absolute Maximum Rating)

Symbol	Item	Unit	RMSB40M
V_{RRM}	Peak Repetitive Reverse Voltage	V	1000
V_R	DC Blocking Voltage	V	
V_{RMS}	RMS Reverse Voltage	V	700
$I_{F(AV)}$	Average Forward Rectified Current @60Hz sine wave, R-load, T_L=100℃	A	4
I_{FSM}	Non-Repetitive Surge Forward Current @8.3 ms single half sine-wave,1 cycle, Tj=25℃	A	100
I^2t	Current squared time @1ms≤t≤8.3ms,Tj=25℃, Rating of per diode	A^2S	41.5
T_{STG}	Storage Temperature range	℃	-55 to +150
T_J	Operating junction temperature	℃	-55 to +150

Electrical Characteristics (T_A=25℃ unless otherwise noted)

Symbol	Item	Unit	Test Conditions		TYP.	Max.
V_F	Maximum instantaneous forward voltage drop per diode (note 1)	V	IF=4A		1.1	1.3
I_R	Peak reverse current at rated DC blocking voltage per diode(Note 2)	μA	V_{RM}=V_{RRM}	T_j=25℃		5
				T_j=125℃		500
C_{tot}	Total capacitance per Element (Note 3)	pF	VR=4V,f=1MHz		45	
trr	reverse recovery time	ns	IF=0.5A,IR=1.0A,Irr=0.25A			500
$R_{\theta JL}$	Thermal resistance (note 4)	℃/W	Between junction and lead, With heatsink			15
$R_{\theta JA}$		℃/W	Between junction and ambient, Without heatsink			55

Notes:

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: pulse width ≤ 40 ms

(3) Per element, measured at 1.0MHz and applied reverse voltage of 4.0V DC

(4) Thermal resistance from junction to case per element. Unit mounted on 75 x 75 x 1.6mm aluminum plate heat sink.

Typical Characteristics

Figure 1. Current Derating

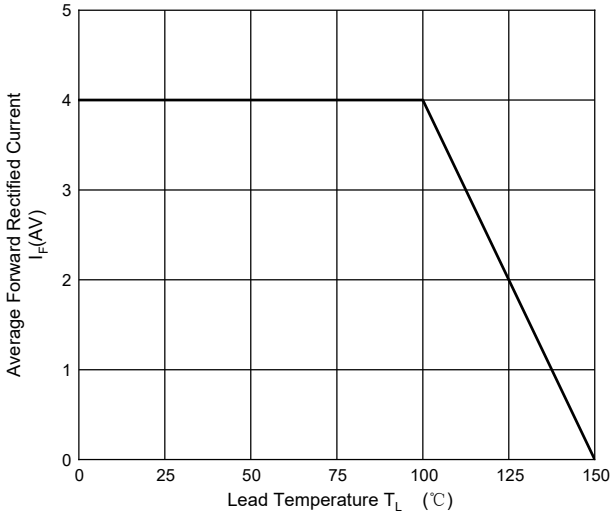


Figure 2. Maximum Non-Repetitive Forward Surge Current Uni-Directional Only

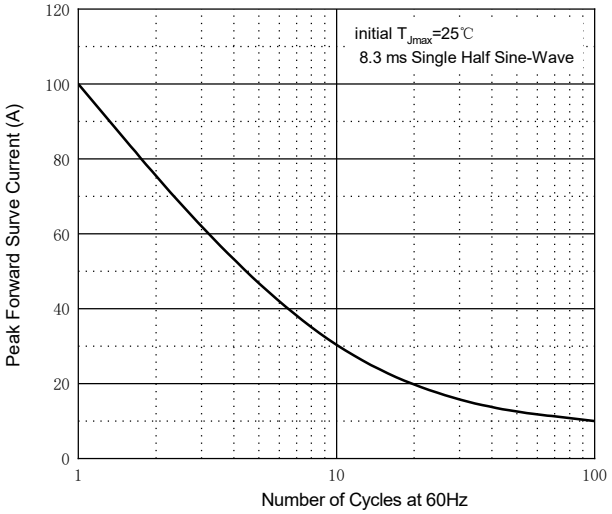


Figure 3. Forward Characteristics

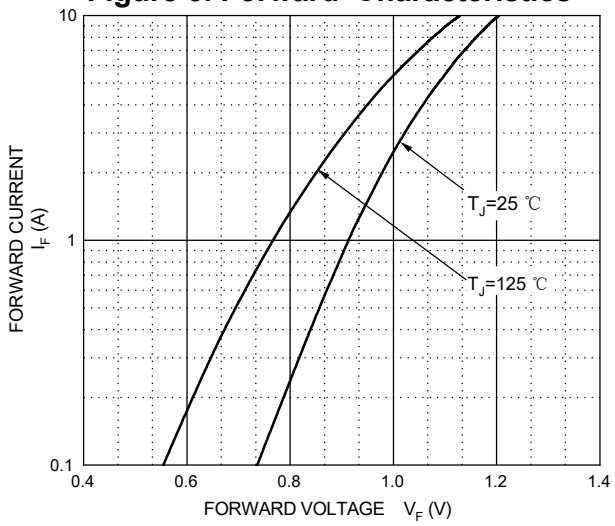
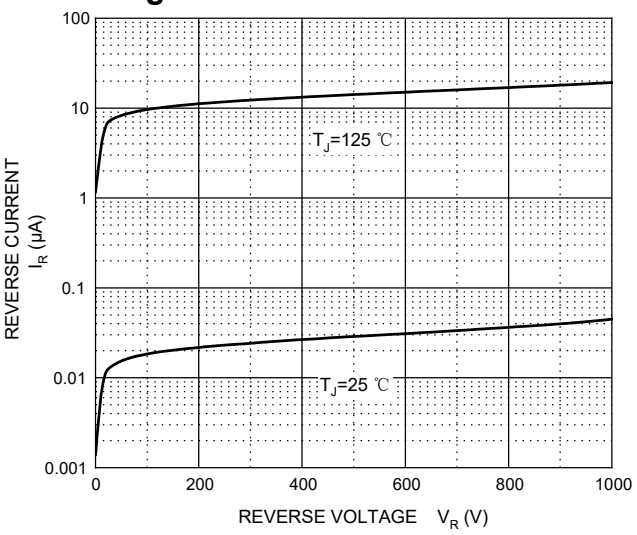
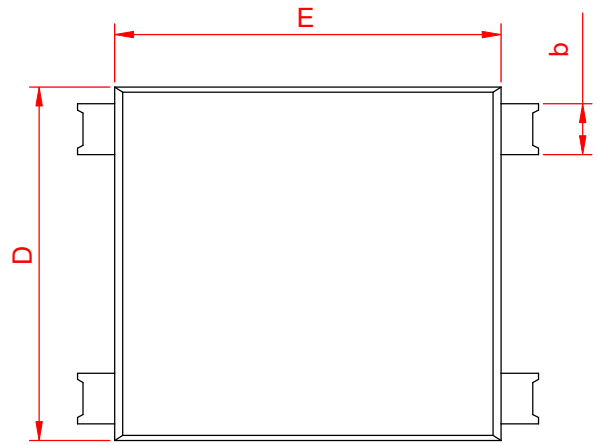
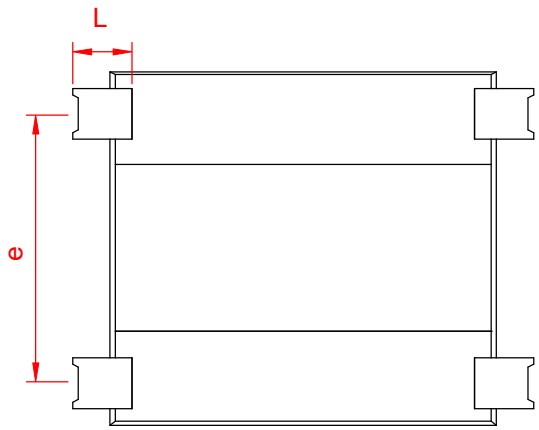


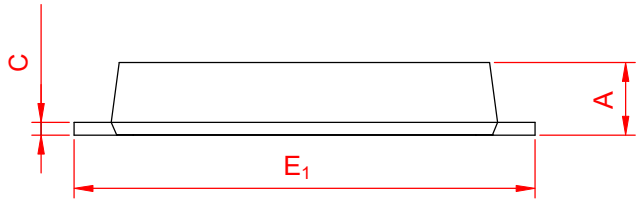
Figure 4. Reverse Characteristics



UMSB Package Outline Dimensions

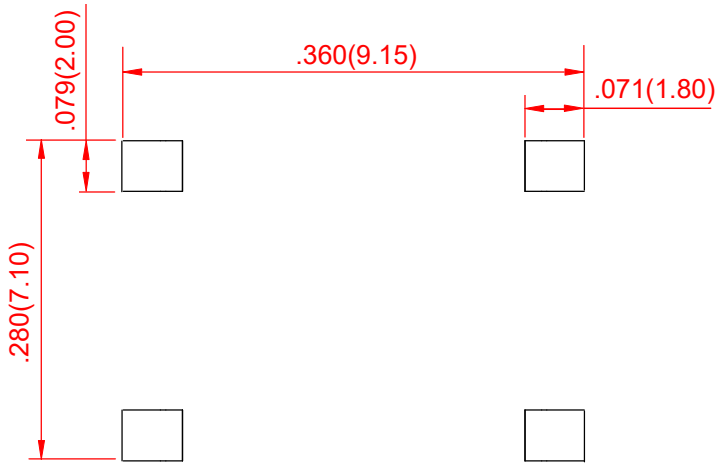






DIM	Unit:mm		Unit:inch	
	MIN	MAX	MIN	MAX
A	1.3	1.5	0.051	0.059
C	0.17	0.29	0.007	0.011
D	6.4	6.9	0.252	0.272
E	7.1	7.6	0.280	0.299
E1	8.4	8.9	0.331	0.350
L	1.0	1.6	0.039	0.063
e	4.9	5.2	0.193	0.205
b	0.95	1.15	0.037	0.045

UMSB Package Outline Dimensions



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

Dimensions in inches and (millimeters)

NOTICE

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