

MSB40B-MSB40M

Rev.A May.-2017

/ Descriptions

4.0A

UMSB

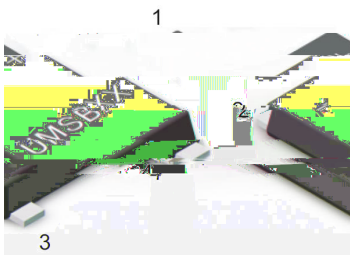
4.0A Surface Mount Glass Passivated Bridge Rectifier,UMSB thin package.

/ Features

Glass Passivated Chip Junction, High Surge Current Capability, Reverse Voltage :100 to 1000V,
Forward Current: 4.0A, Designed for Surface Mount Application. HF product.

/ Applications

General purpose.



/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating						Unit
		MSB40B	MSB40D	MSB40G	MSB40J	MSB40K	MSB40M	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current	I_o	4.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	95						A
Typical Junction Capacitance (Note1)	C_i	50						pF
Operating and Storage Temperature Range	T_j, T_{stg}	$-55\sim+150$						$^\circ\text{C}$

Note:

1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. P.C.B. mounted with 4x1.5 x1.5 (3.81x3.81cm) copper pad areas.

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Rating	Unit
Forward Voltage per element	V_F	$I_F=3.0\text{A}$	1.1	V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	$T_a=25^\circ\text{C}$	5.0	μA
		$T_a=125^\circ\text{C}$	100	

/ Electrical Characteristic Curve

Fig.1 Average Rectified Output Current Derating Curve

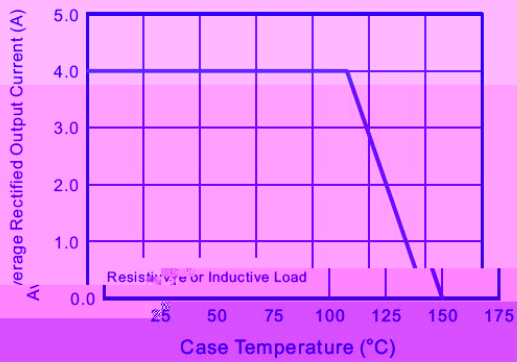


Fig.2 Typical Static Reverse Characteristics

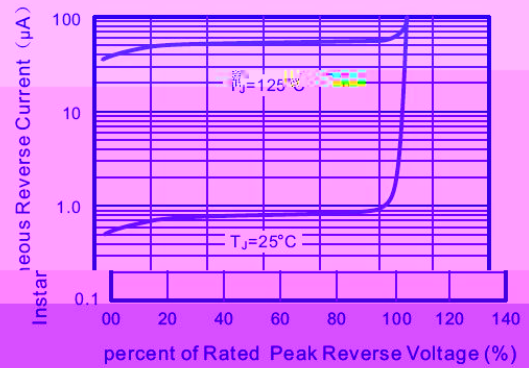


Fig.3 Typical Instantaneous Forward Characteristics

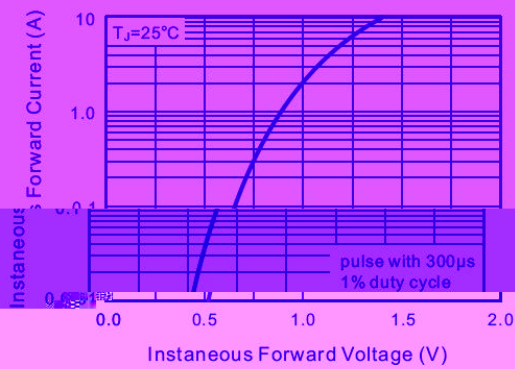


Fig.4 Typical Junction Capacitance

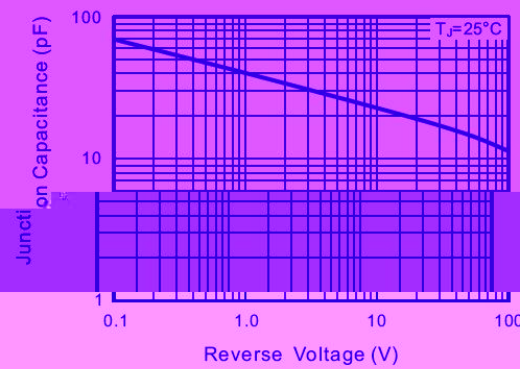
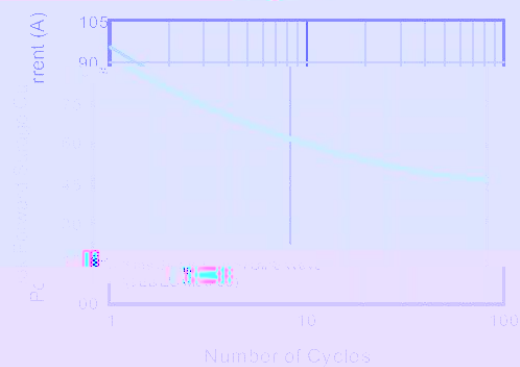
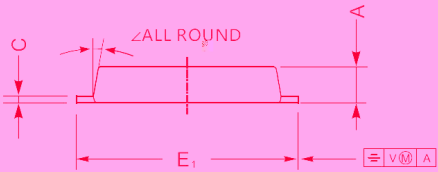
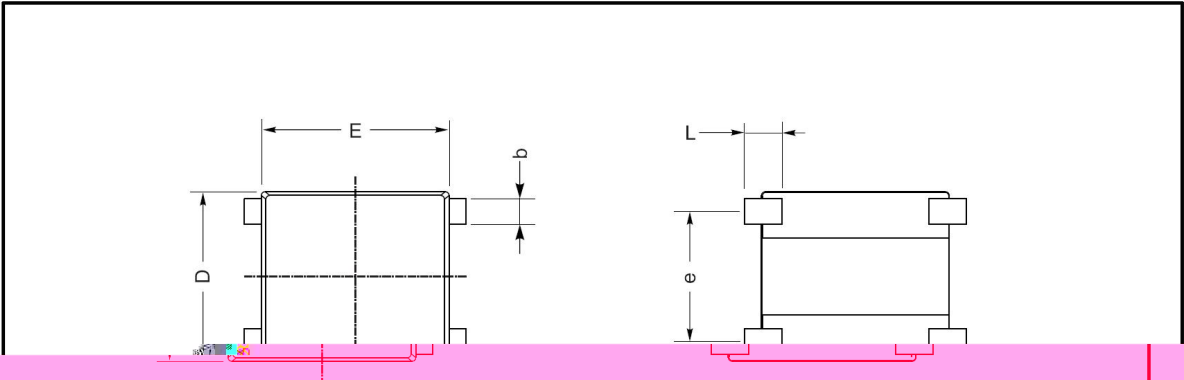


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



/ Package Dimensions

UMSB



UMSB mechanical data

UNIT	A	C	D	E	E ₁	L	e	b	∠
max	1.5	0.20	7.0	7.6	8.0	1.6			



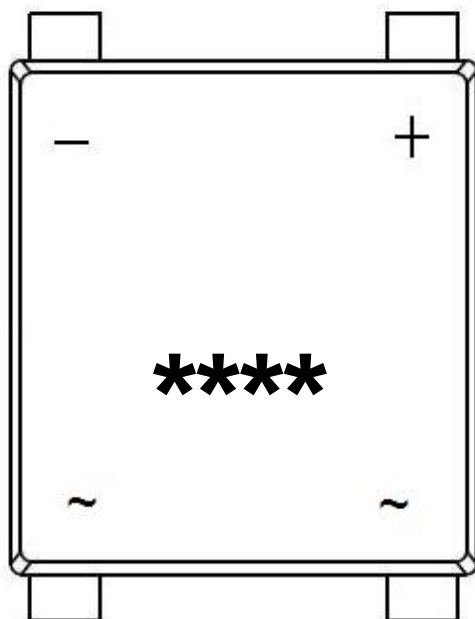
/ Marking Instructions

Marking

Type number	Marking code
MSB40B	MB40B
MSB40D	MB40D
MSB40G	MB40G
MSB40J	MB40J
MSB40K	MB40K
MSB40M	MB40M



/ Marking Instructions



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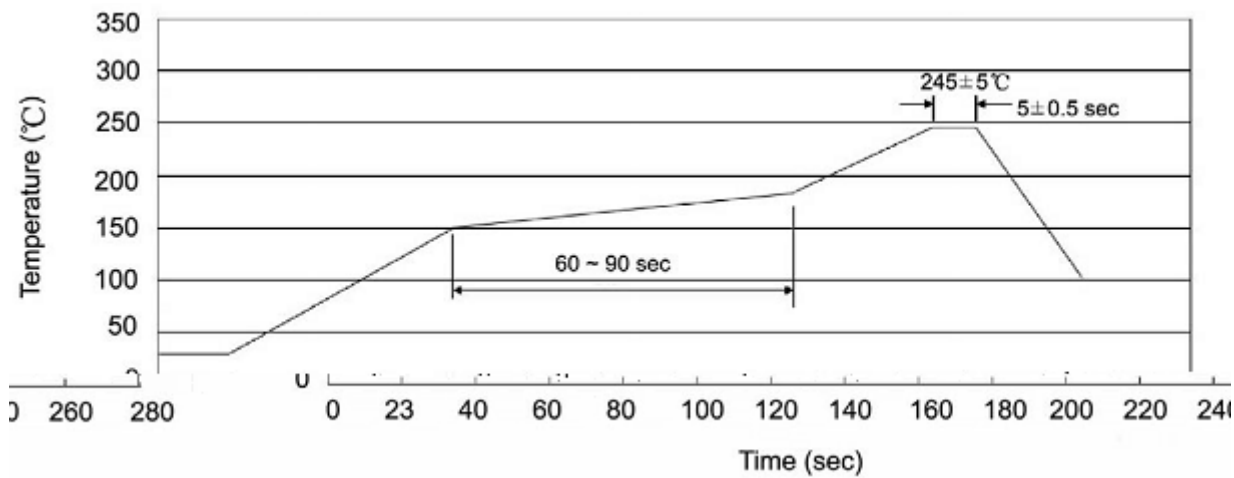
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Note:

Product Type Code

Lot No. Code The 1st * means:YM Code The last 3 * means:little Lot
No Code

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-----|-----|----|-----------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 245 | 5 | | 5 0.5sec; | 2.Peak Temp.:245 5 , Duration:5 0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260 5 10 1 sec. Temp.:260±5℃ Time:10±1 sec

/ Packaging SPEC.

/ REEL