



MB1LK THRU MB10LK

1A Surface Mount Glass Passivated Bridge Rectifier

Features

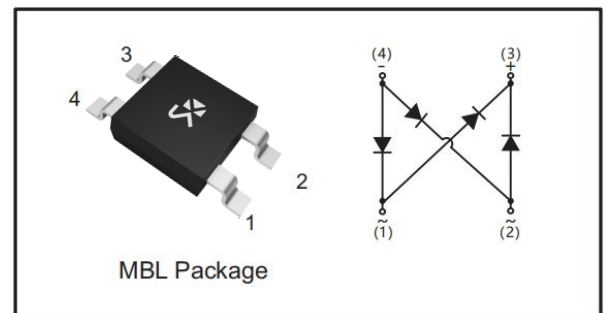
- Glass Passivated Chip Junction
- Reverse Voltage -100 to 1000V
- Forward Current -1A
- High Surge Current Capability
- Designed for Surface Mount Application

Marking

Type number	Marking code
MB1LK	MB1LK
MB2LK	MB2LK
MB4LK	MB4LK
MB6LK	MB6LK
MB8LK	MB8LK
MB10LK	MB10LK

PINNING

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter		Symbol	MB 1LK	MB 2LK	MB 4LK	MB 6LK	MB 8LK	MB 10LK	Units
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
Maximum Average Forward Rectified Current @Fig.1		I _{F(AV)}	1.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimpose on Rated Load(JEDEC Method)		I _{FSM}	35						A
Peak Forward Surge Current 1.0 ms Single Half Sine Wave Superimpose on Rated Load(JEDEC Method)		I _{FSM}	70						A
I ² t Rating for fusing(3ms≤t≤8.3ms)		I ² t	5.0						A ² S
Maximum Instantaneous Forward Voltage at 1A		V _F	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A = 25℃	I _R	5						μA
	T _A = 125℃		100						μA
Typical Junction Capacitance ⁽¹⁾		C _J	10						pF
Typical Thermal Resistance ⁽²⁾		R _{θJA}	45						℃/W
		R _{θJC}	15						
		R _{θJL}	25						
Operating and Storage Temperature Range		T _i , T _{STG}	-55~+150						℃

Note: 1. Measured at 1 MHz and applied reverse voltage of 4 V D.C

2. Mounted on glass epoxy PC board with 4×1.5"×1.5"(3.81×3.81cm)copper pad.



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Typical Characteristics

Fig.1 Average Rectified Output Current Derating Curve

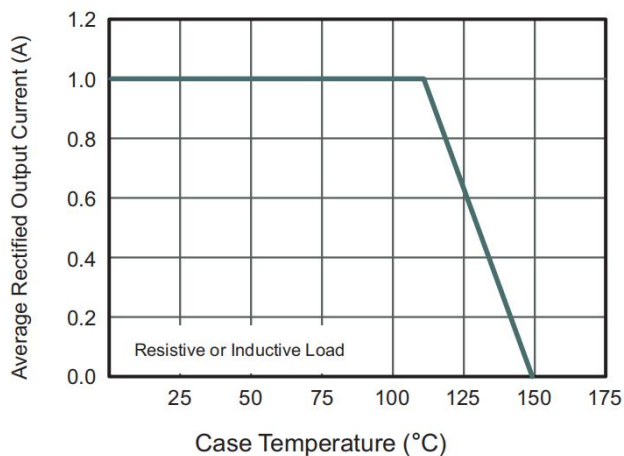


Fig.2 Typical Reverse Characteristics

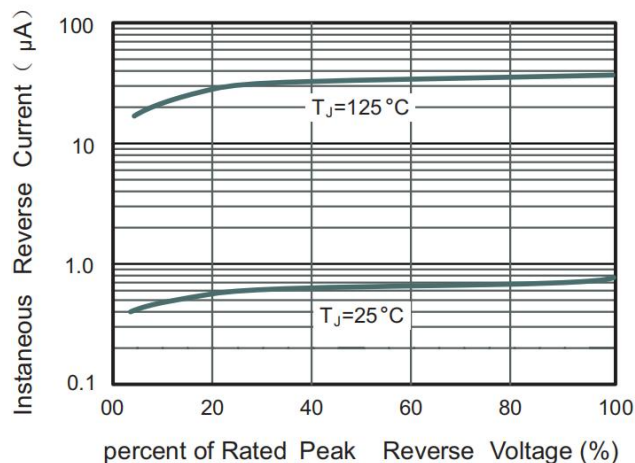


Fig.3 Typical Instantaneous Forward Characteristics

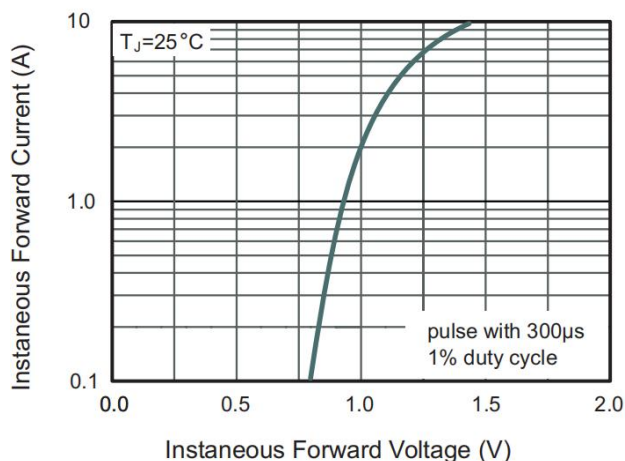


Fig.4 Typical Junction Capacitance

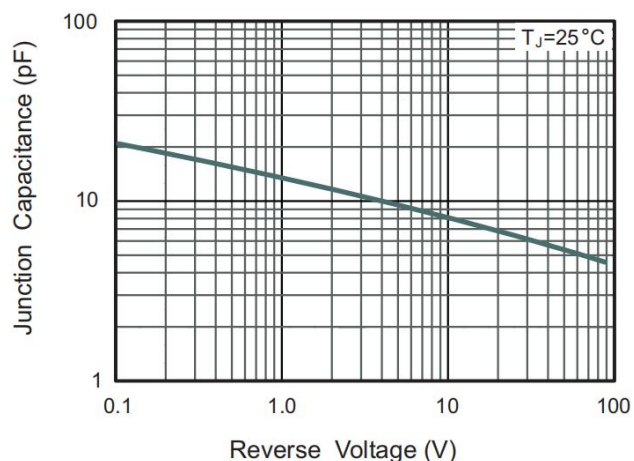
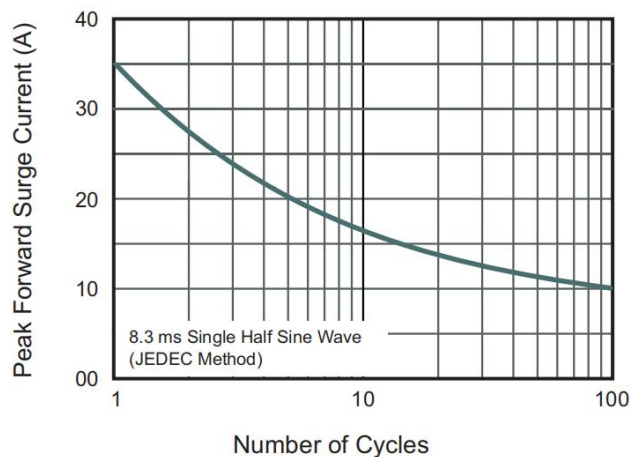


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



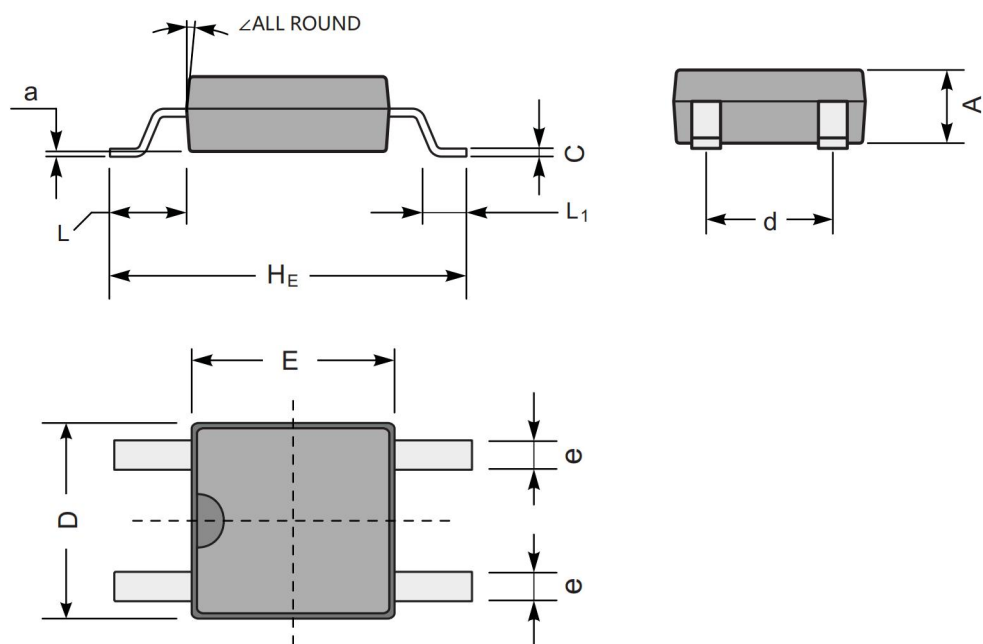


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Package Information

MBL

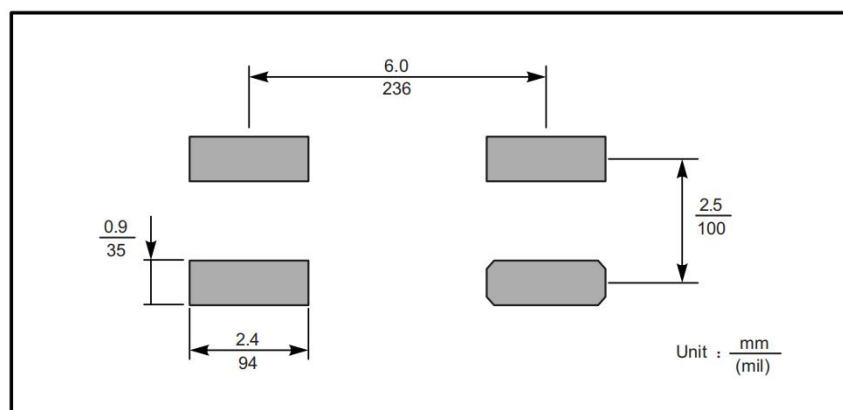
Dimensions in mm



MBL mechanical data

UNIT		A	C	D	E	H _E	d	e	L	L ₁	a	∠
mm	max	1.6	0.18	3.95	4.1	7.0	2.7	0.8	1.7	1.1	0.2	7°
	min	1.2	0.12	3.45	3.6	6.4	2.3	0.5	1.3	0.5	-	
mil	max	63	7.1	156	161	275	106	31	67	43	8	
	min	47	4.7	136	142	252	91	17	51	20	-	

The recommended mounting pad size





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