

1A Surface Mount Glass Passivated Bridge Rectifier

Features

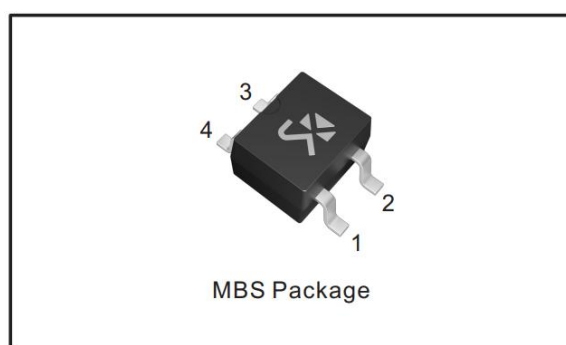
- Glass Passivated Chip Junction
- Reverse Voltage -100 to 1000V
- Forward Current -1A
- High Surge Current Capability
- Designed for Surface Mount Application

Marking

Type number	Marking code
MB1SK	MB1SK
MB2SK	MB2SK
MB4SK	MB4SK
MB6SK	MB6SK
MB8SK	MB8SK
MB10SK	MB10K

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 1SK	MB 2SK	MB 4SK	MB 6SK	MB 8SK	MB 10SK	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 at $T_A = 50^\circ\text{C}$	$I_{F(AV)}$	1.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimpose on Rated Load (JEDEC Method)	I_{FSM}	35						A
Maximum Instantaneous Forward Voltage at 1A	V_F	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	5						μA
	$T_A = 125^\circ\text{C}$	40						μA
Typical Junction Capacitance ⁽¹⁾	C_J	13						pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	85						$^\circ\text{C/W}$
	$R_{\theta JL}$	30						$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-55~+150						$^\circ\text{C}$

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

2. Mounted on glass epoxy PC board with $4 \times (5 \times 35 \text{ mm}^2)$ copper pad.

Typical Characteristics

Fig.1 Average Rectified Output Current Derating Curve

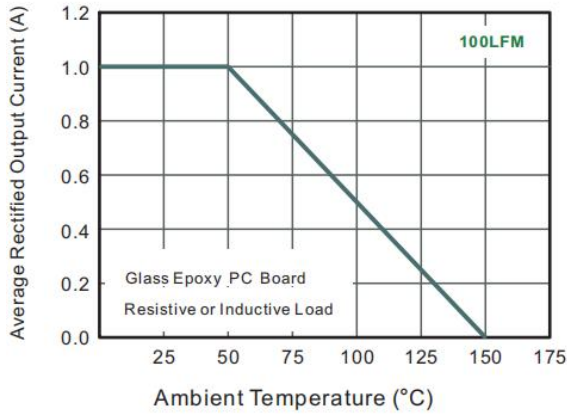


Fig.2 Typical Reverse Characteristics

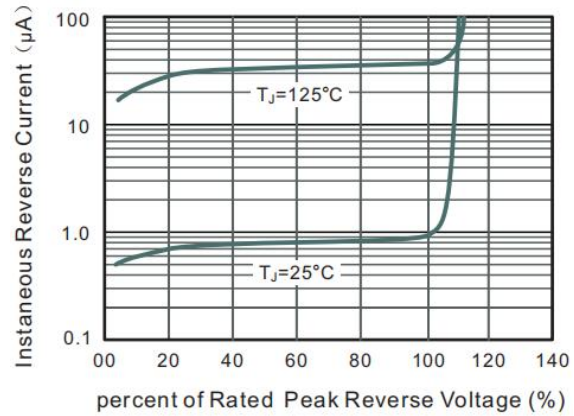


Fig.3 Typical Instantaneous Forward Characteristics

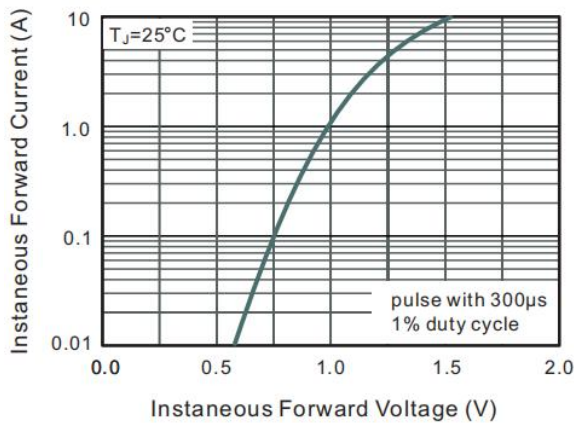


Fig.4 Typical Junction Capacitance

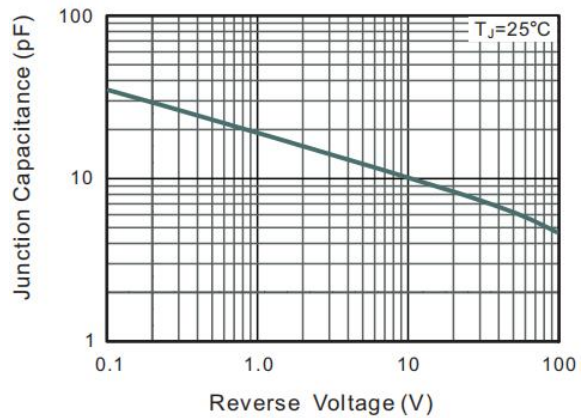
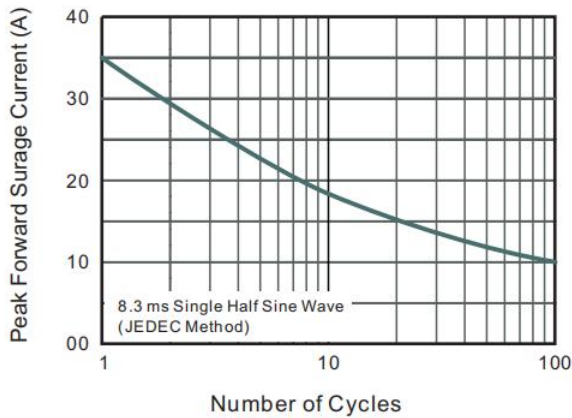


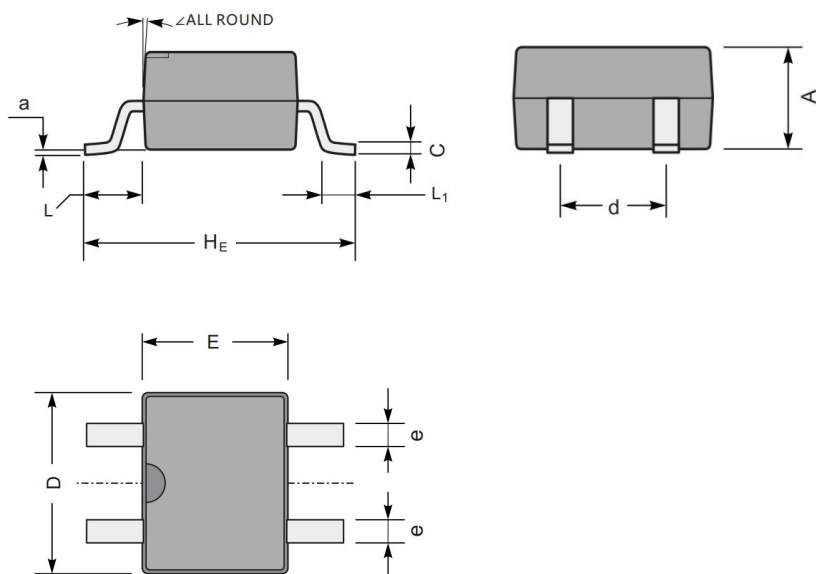
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Package Information

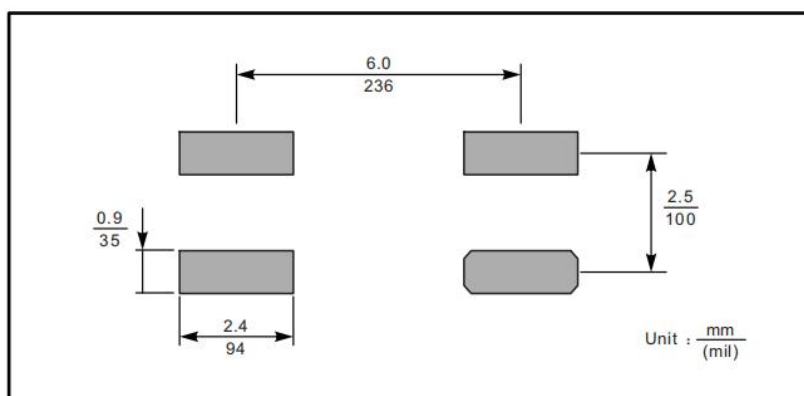
MBS

Dimensions in mm



UNIT		A	C	D	E	H_E	d	e	L	L_1	a	\angle
mm	max	2.6	0.22	5.0	4.1	7.0	2.7	0.7	1.7	1.1	0.2	7°
	min	2.2	0.15	4.5	3.6	6.4	2.3	0.5	1.3	0.5		
mil	max	102	8.7	197	161	276	106	28	67	43	8	
	min	94	5.9	177	142	252	91	20	51	20		

The recommended mounting pad size



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