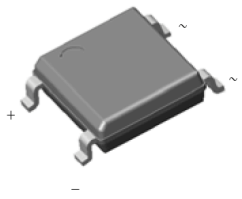
LB1SL thru LB10SL

Low Profile Miniature Single Phase Surface Mount Bridge Rectifiers

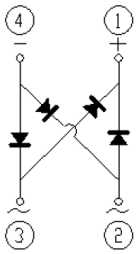
Reverse Voltage 100~1000V Output Current 1.0A

Features

- Glass passivated standard bridge rectifiers
- Moisture sensitivity: Level 1, per J-STD-020
- Solder dip 260°C, 10s
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Add suffix "E" for Halogen Free
- Halogen-free according to IEC 61249-2-21 definition



Package: ABF



Schematic Diagram

Applications

For use of general purpose AC-DC bridge rectification in power supply, charger and telecome device applications.

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	LB1SL	LB2SL	LB4SL	LB6SL	LB8SL	LB10SL	Unit
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 Output Rectified Current	$I_{O(AV)}$	1.0						A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	30						A
Rating for Fusing (t<8.3ms)	I^2t	3.7						A^2sec
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150						°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	LB1SL	LB2SL	LB4SL	LB6SL	LB8SL	LB10SL	Unit
Maximum Instantaneous Forward Voltage	I_F=1.0A	V_F	1.0						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A=25°C	I_R	10.0						μA
	T_A=125°C		100						
Typical Junction Capacitance	4.0 V, 1 MHz	C_J	10						pF

Thermal Characteristics

Parameter	Symbol	LB1SL	LB2SL	LB4SL	LB6SL	LB8SL	LB10SL	Unit
Typical Thermal Resistance(1)	$R_{\theta JA}$	80						°C/W
	$R_{\theta JL}$	25						

Notes: 1. Mounted on FR-4 P.C.B Board

Typical Electrical Characteristic Curves

Fig.1 Forward Current Derating Curve

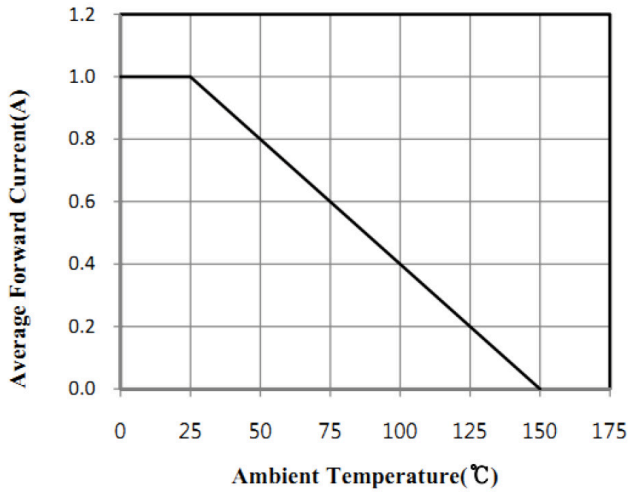


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

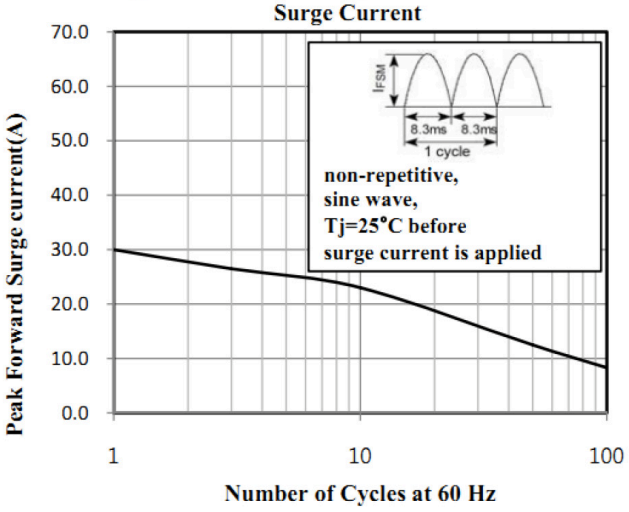


Fig.3 Typical Instantaneous Forward Characteristics

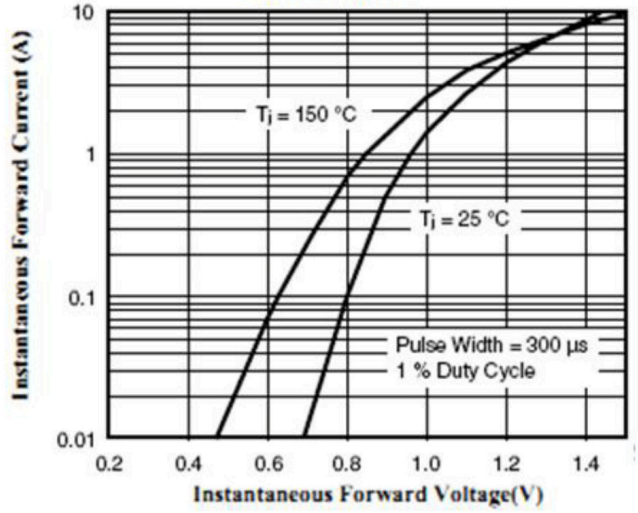


Fig.4 Forward Power Dissipation

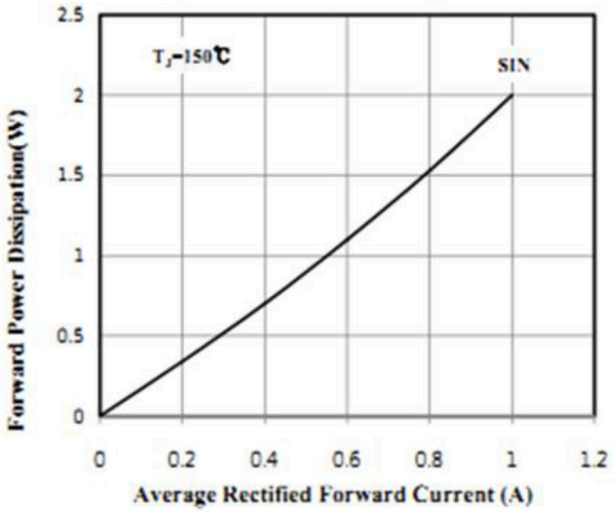
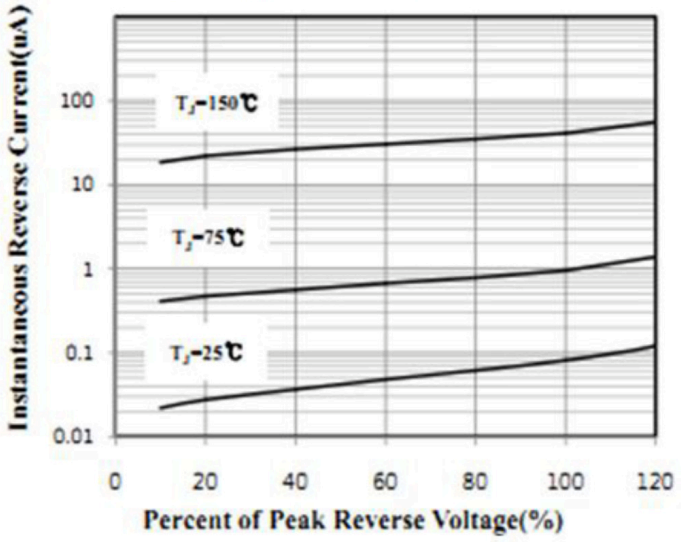
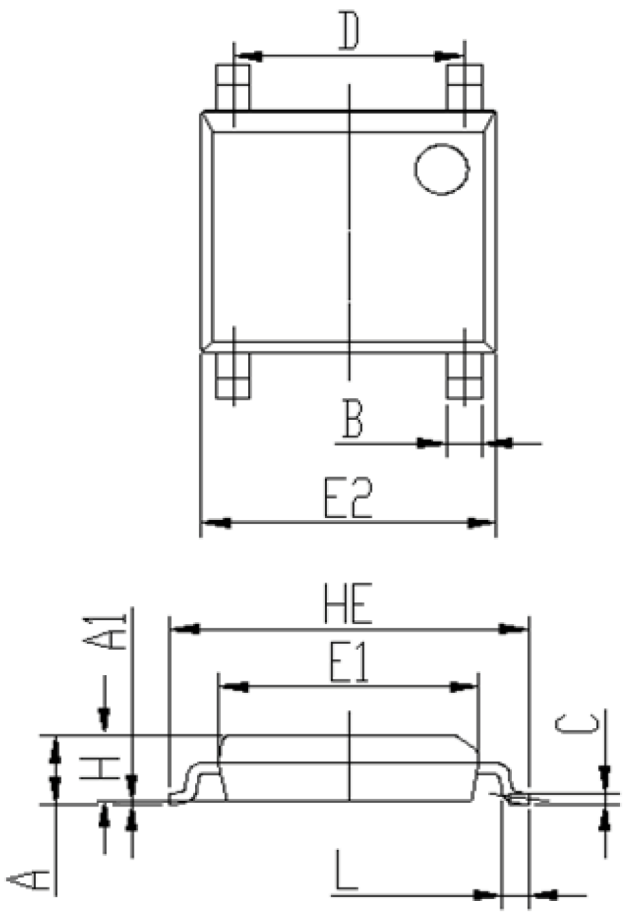


Fig.5 Typical Reverse Charateristics



Package Outline Dimensions ABF



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	1.25	1.35	0.049	0.053
A1	0.00	0.15	0.000	0.006
B	0.50	0.70	0.020	0.028
C	0.15	0.30	0.006	0.012
D	3.80	4.20	0.150	0.165
E1	4.40	4.60	0.173	0.181
E2	5.00	5.20	0.197	0.205
L	0.25	0.65	0.010	0.026
HE	6.00	6.40	0.236	0.252
H	1.20	1.30	0.047	0.051

Taping Orientation