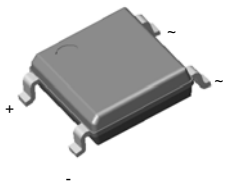
LB1SL thru LB10SL

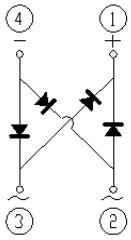
Low Profile Miniature Single Phase Surface Mount Bridge Rectifiers
Reverse Voltage 100~1000V Output Current 1.0A

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 T_A=125°C	I_R	10.0 100						μA
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

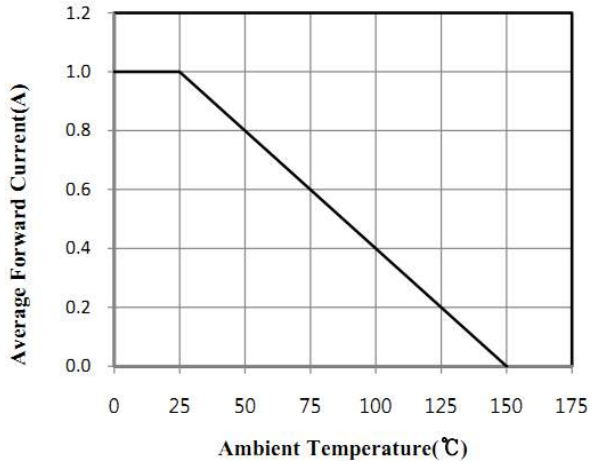


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

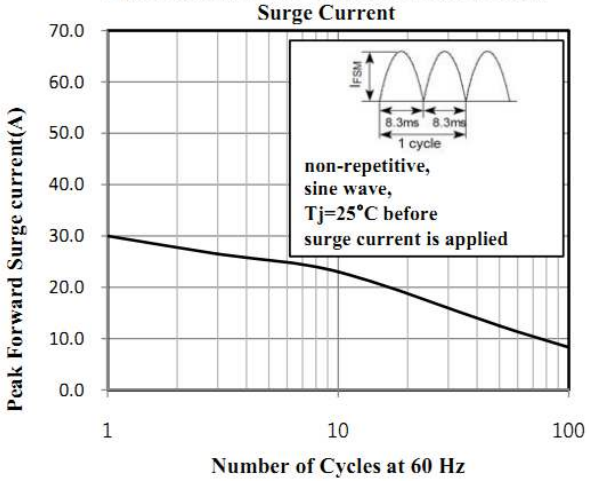


Fig.3 Typical Instantaneous Forward Characteristics

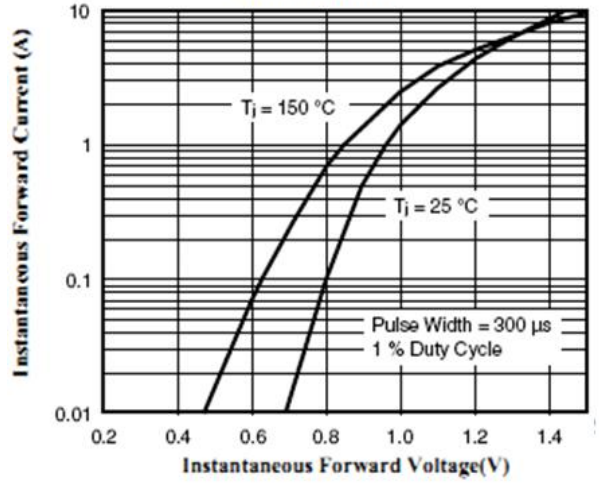


Fig.4 Forward Power Dissipation

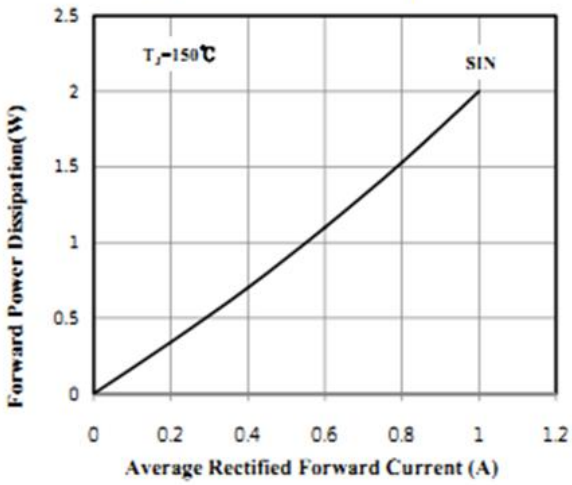
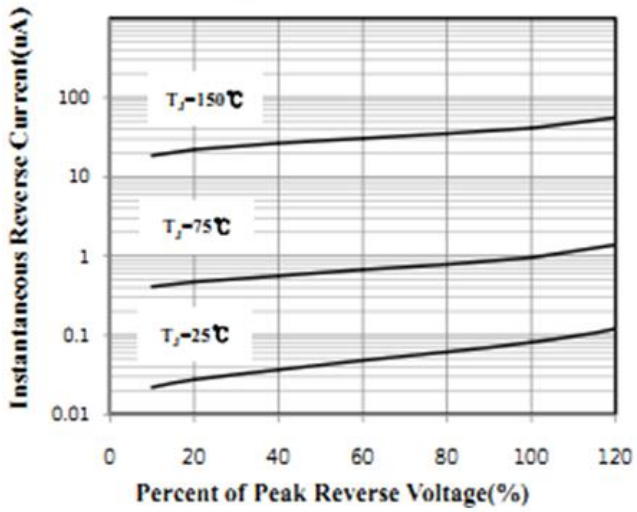


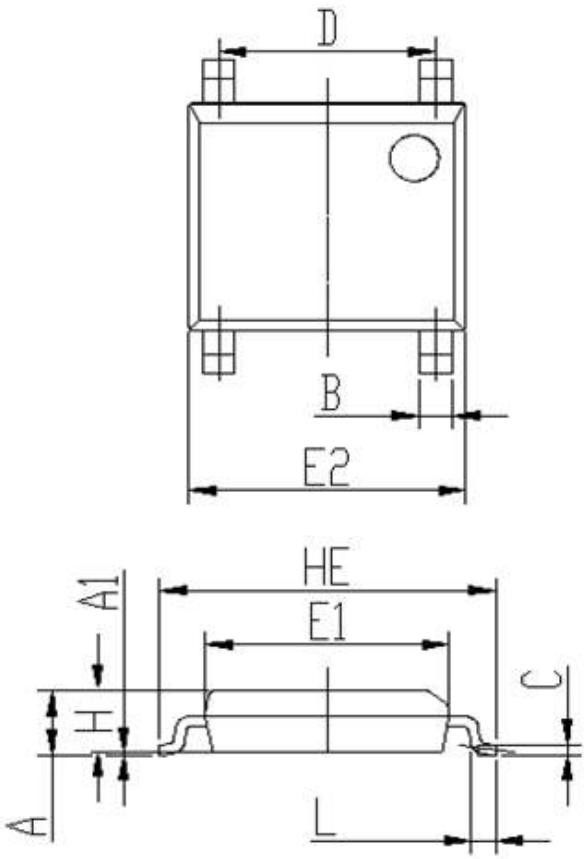
Fig.5 Typical Reverse Charateristics



LB1SL thru LB10SL

Low Profile Miniature Single Phase Surface Mount Bridge Rectifiers
Reverse Voltage 100~1000V Output Current 1.0A

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