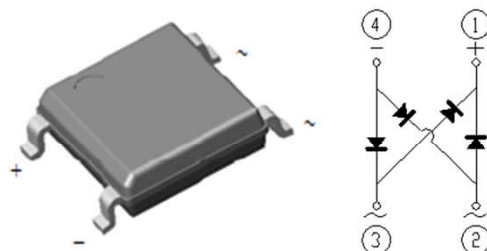


Features

- Case:ABF
- Glass passivated standard bridge rectifiers
- Ideal for automated placement
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

Classification 94V-0

- Halogen-free according to IEC 61249-2-21 definition



Typical Applications

For use of general purpose AC to DC bridge rectification in power supply, charger, office appliance, home appliance and telecom device.

Maximum Ratings (TA = 25 °C unless otherwise noted)

Parameter	Symbol	LB151SL	LB152SL	LB154SL	LB156SL	LB158SL	LB1510SL	Unit
Maximum repetitive peak reverse voltage	VRRM	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	100	200	400	600	800	1000	V
Maximum average output rectified current	Io(AV)	1.5						A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	50						A
Rating for fusing(t<8.3ms)	I ² t	10.0						A ² sec
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150						°C

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

Parameter	Test Conditions	Symbol	LB151SL	LB152SL	LB154SL	LB156SL	LB158SL	LB1510SL	Unit
Maximum instantaneous forward voltage	IF=1.5A TA=25°C	V _F	1.1						Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C TA=125°C	I _R	10.0 100						µA
Typical junction capacitance	4.0 V, 1 MHz	C _J	10						pF

Thermal Characteristics

Parameter	Symbol	LB151SL	LB152SL	LB154SL	LB156SL	LB158SL	LB1510SL	Unit
Typical thermal resistance ⁽¹⁾	R _{θJA}	80						°C/W
	R _{θJL}	25						

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

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

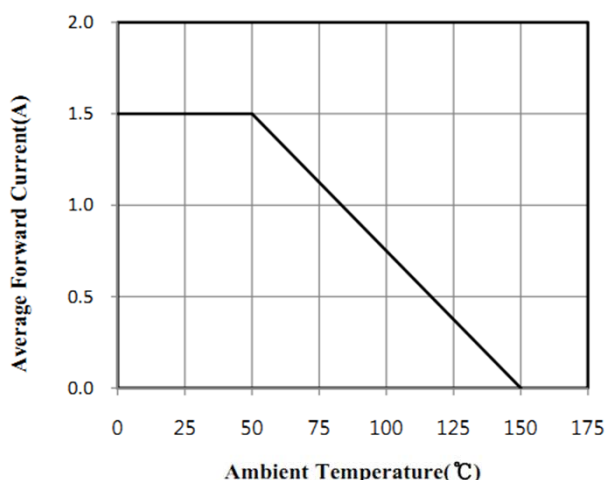


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

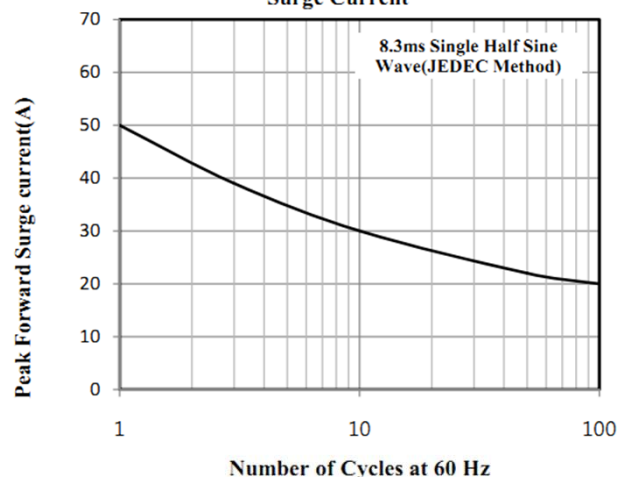


Fig.3 Typical Instantaneous Forward Characteristics

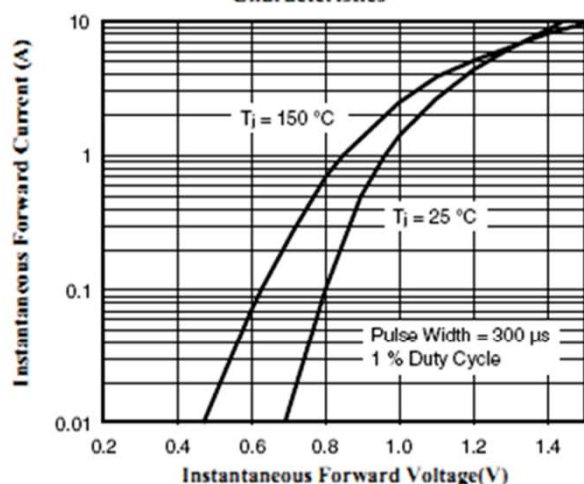


Fig.4 Forward Power Dissipation

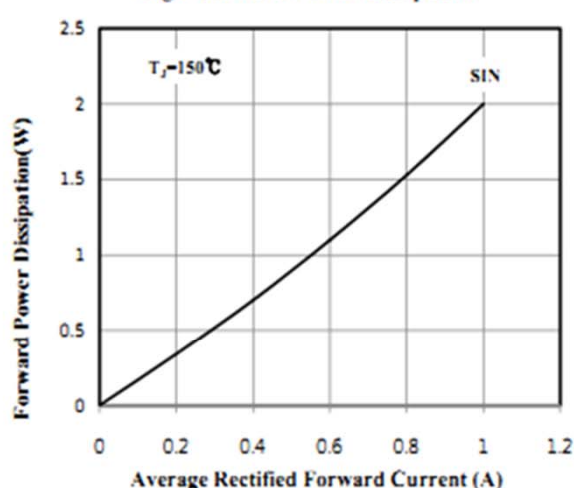
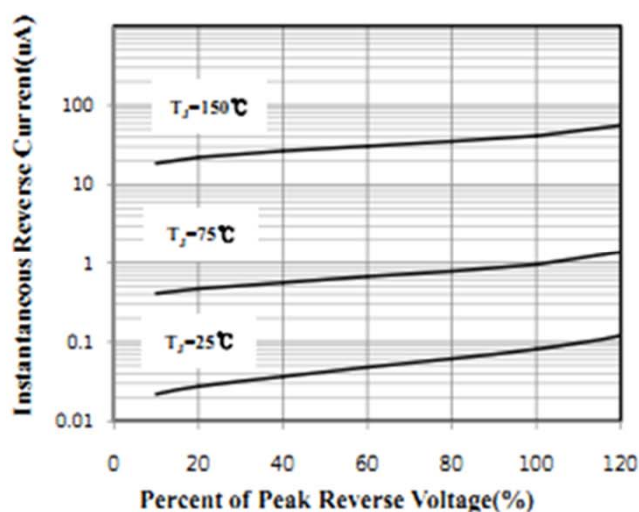
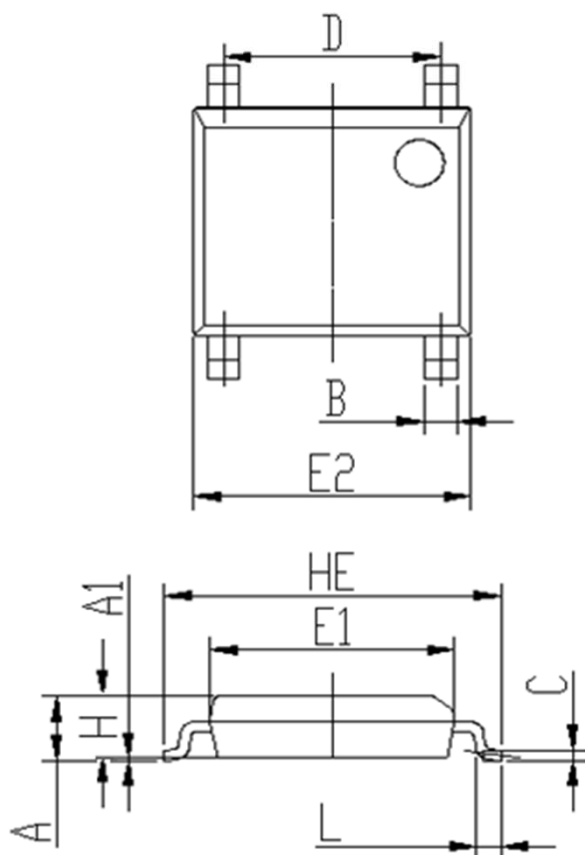


Fig.5 Typical Reverse Characteristics

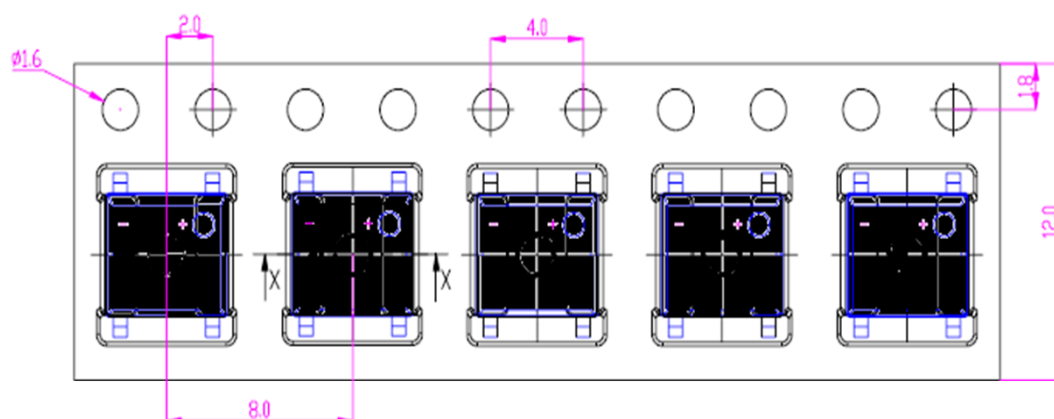


Package Outline Dimensions

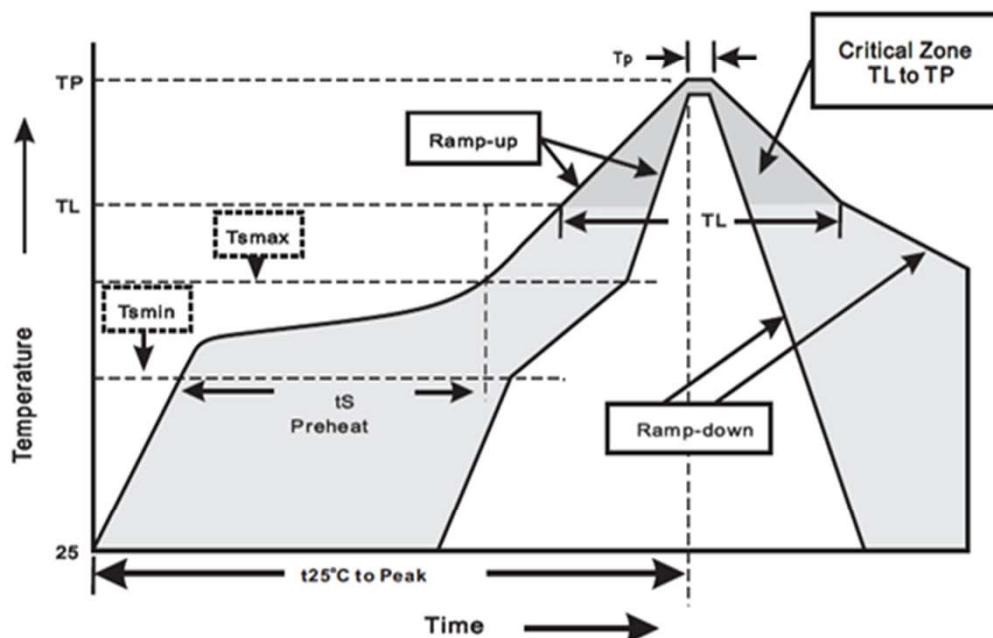


DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	1.25	1.35	0.049	0.053
A1	0.00	0.15	0.000	0.006
B	0.50	0.70	0.020	0.028
C	0.15	0.30	0.006	0.012
D	3.80	4.20	0.150	0.165
E1	4.40	4.60	0.173	0.181
E2	5.00	5.20	0.197	0.205
L	0.25	0.65	0.010	0.026
HE	6.00	6.40	0.236	0.252
H	1.20	1.30	0.047	0.051

TAPING ORIENTATION



Soldering Parameters



Reflow Soldering		Sn-Pb Eutectic Assembly	Pb-Free assembly
Pre Heat	- Temperature Min ($T_s(\min)$)	100°C	150°C
	- Temperature Max ($T_s(\max)$)	150°C	200°C
	- Time (min to max) (ts)	60 – 120 secs	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max	3°C/second max
TS(max) to T_L - Ramp-up Rate		3°C/second max	3°C/second max
Reflow	- Temperature (T_L) (Liquidus)	183°C	217°C
	- Time (min to max) (ts)	60 – 150 seconds	60 – 150 seconds
Peak Temperature (T_p)		240+0/-5 °C	240+0/-5°C
Time within 5°C of actual peak Temperature (t_p)		10 – 30 seconds	20 – 40 seconds
Ramp-down Rate		6°C/second max	6°C/second max
Time 25°C to peak Temperature (T_p)		6 minutes Max.	8 minutes Max.
Do not exceed		260°C	260°C

Wave Soldering	
Peak Temperature :	260+0/-5°C
Dipping Time :	10 seconds
Soldering :	1 time



LB151SL thru LB1510SL

Low Profile Miniature Single Phase Surface Mount Bridge Rectifiers
Reverse Voltage 100~1000V Output Current 1.5A

Disclaimers

These materials are intended as a reference to assist our customers in the selection of the Suzhou Good-Ark product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to Suzhou Good-Ark Electronics Co., Ltd. or a third party.

Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials.

All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Suzhou Good-Ark Electronics Co., Ltd. without notice due to product improvements or other reasons. It is therefore recommended that customers contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized Suzhou Good-Ark Electronics Co., Ltd. for the latest product information before purchasing a product listed herein. The information described here may contain technical inaccuracies or typographical errors. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability, or other loss rising from these inaccuracies or errors. Please also pay attention to information published by Suzhou Good-Ark Electronics Co., Ltd. by various means, including our website home page.
(<http://www.goodark.com>)

When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithms, Please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.

The prior written approval of Suzhou Good-Ark Electronics Co., Ltd. is necessary to reprint or reproduce in whole or in part these materials.

Please contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized distributor for further details on these materials or the products contained herein.