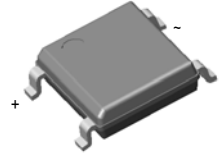


LBR151S thru LBR1510S

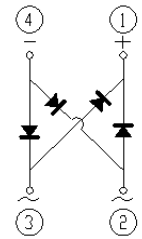
Low Profile Miniature Single Phase Surface Mount Bridge Rectifiers
 Reverse Voltage 100~1000V Output Current 1.5A

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 telecom device applications.

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	LBR151S	LBR152S	LBR154S	LBR156S	LBR158S	LBR1510S	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	$I_{O(AV)}$	1.5						A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	50						A
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	10.0						A^2sec
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150						$^\circ\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Test Conditions	Symbol	LBR151S	LBR152S	LBR154S	LBR156S	LBR158S	LBR1510S	Unit
Maximum Instantaneous Forward Voltage	$I_F=1.5\text{A}$	V_F	1.3						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	I_R	5.0						μA
	$T_A=125^\circ\text{C}$		500						
Typical Junction Capacitance	4.0 V, 1 MHz	C_J	15						pF
Typical Reverse Recovery Time	$I_F=0.5\text{A}, I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$	t_{rr}	500						ns

Thermal Characteristics

Parameter	Symbol	LBR151S	LBR152S	LBR154S	LBR156S	LBR158S	LBR1510S	Unit
Typical Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	80						$^\circ\text{C/W}$
	$R_{\theta JL}$	25						

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

Typical Electrical Characteristic Curves

Fig.1 Forward Current Derating Curve

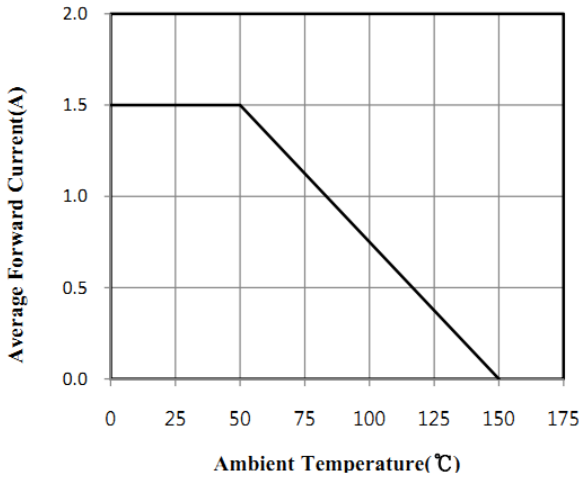


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

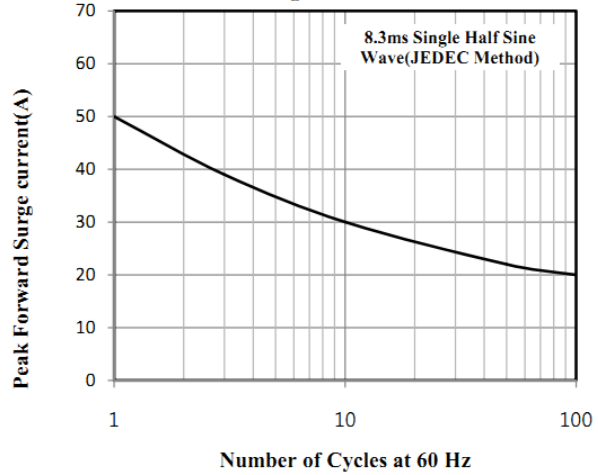


Fig.3 Typical Instantaneous Forward Characteristics

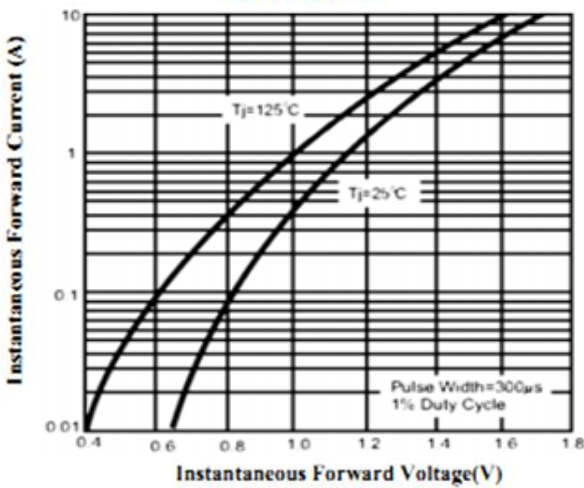


Fig.4 Typical Junction Capacitance

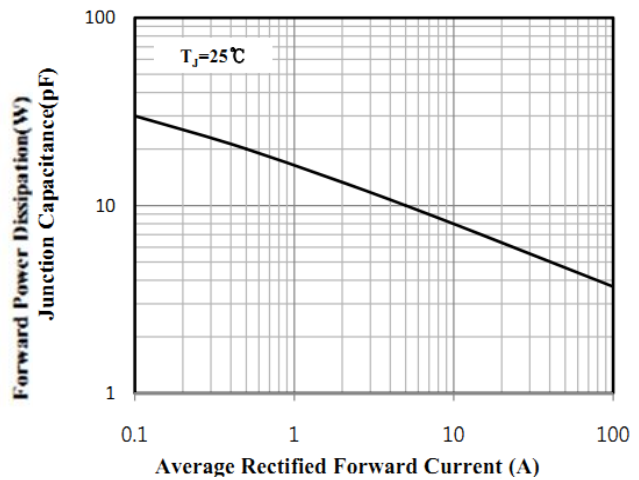
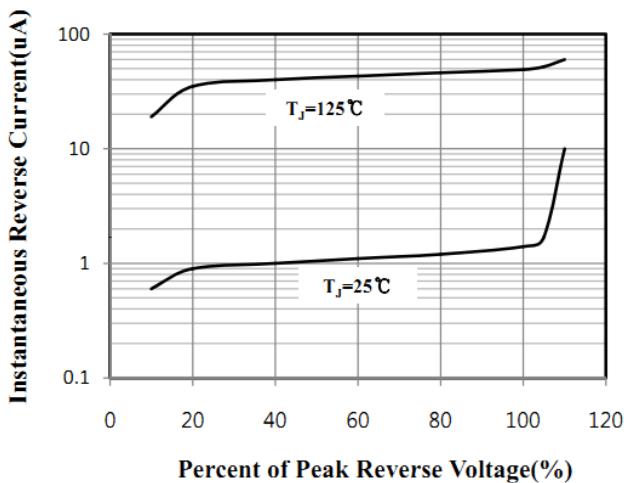


Fig.5 Typical Reverse Characteristics

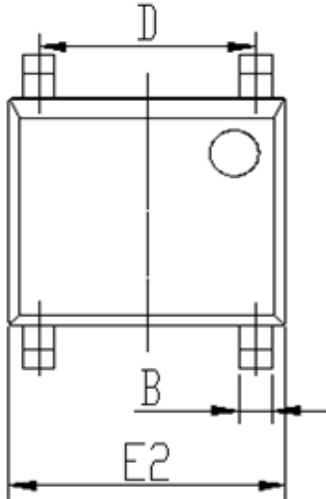


LBR151S thru LBR1510S

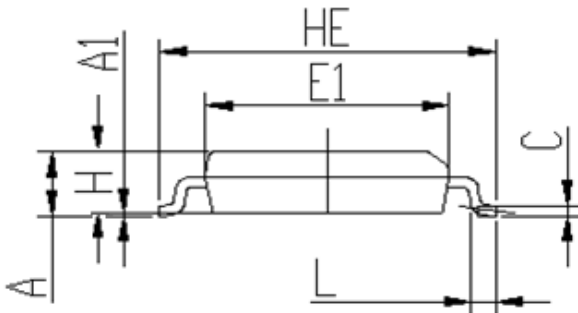
Low Profile Miniature Single Phase Surface Mount Bridge Rectifiers
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Package Outline Dimensions

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

