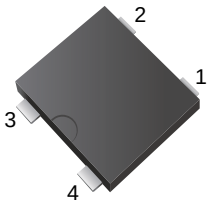
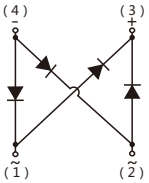
LTB20-12

Surface Mount Bridge Rectifier



Features

- Reverse Voltage 2000 V
- Forward Current 1.2A
- High Surge Current Capability
- Designed for Surface Mount Application
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

- Case:LTB
- Terminal:Leads solderable per MIL-STD-750 Method 2026

Ordering Information

Part Number	Marking	Shipping	Reel
LTB20-12	LTB20	5000PCS Tape&Reel	13 inchs

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

Parameter	Symbol	LTB20-12	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	2000	V
Maximum RMS voltage	V_{RMS}	1400	V
Maximum DC Blocking Voltage	V_{DC}	2000	V
Average Rectified Output Current at T_c = 125 °C	I_O	1.2	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30	A
Maximum Forward Voltage at 1.2A	V_F	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T_A=25 °C @T_A=125 °C	I_R	5 150	μA
Typical Junction Capacitance (Note1)	C_J	20	pF
Operating and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150	°C

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

Characteristic Curves

Fig.1 Average Rectified Output Current Derating Curve

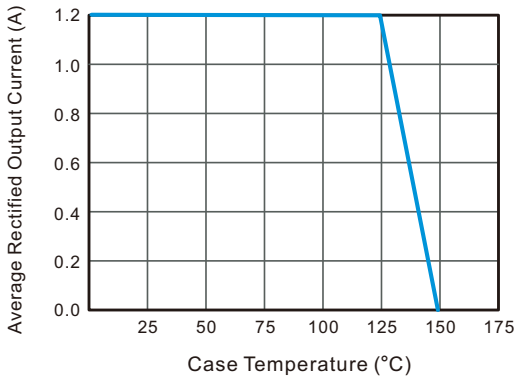


Fig.2 Typical Reverse Characteristics

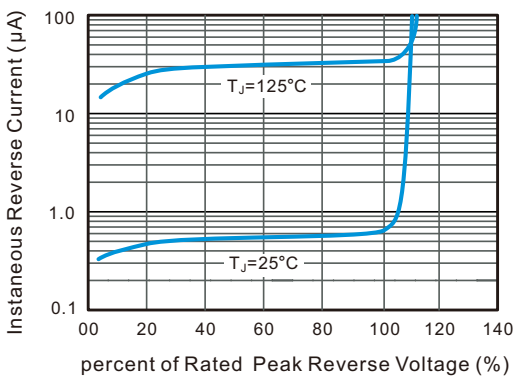


Fig.3 Typical Instaneous Forward Characteristics

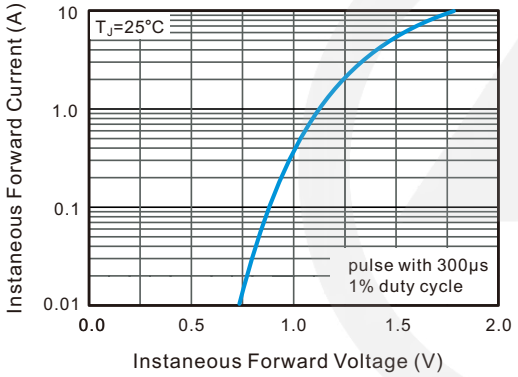


Fig.4 Typical Junction Capacitance

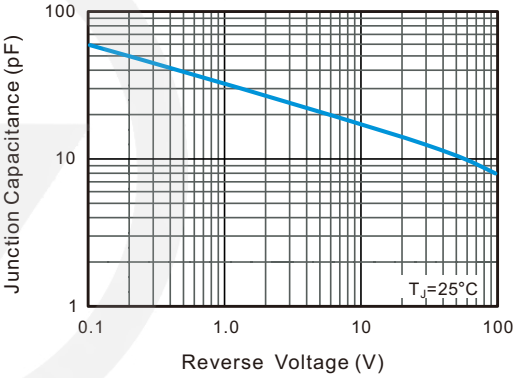
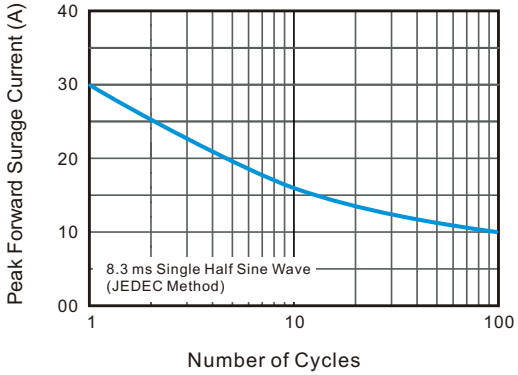
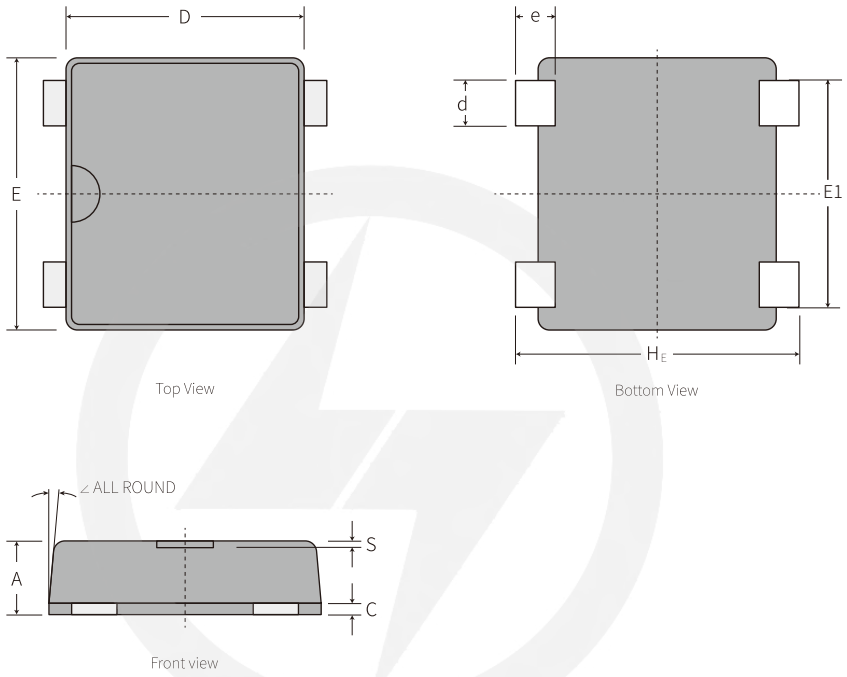


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Package Outline

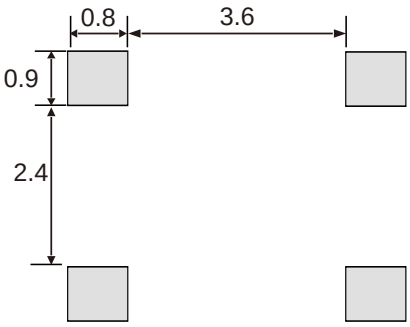
LTB Unit：mm



UNIT		A	C	D	E	H_E	S	d	e	E1	∠
mm	max	1.50	0.30	4.40	5.00	5.20	0.20	1.00	0.90	4.20	5°
	min	1.10	0.10	4.00	4.60	4.80	0.10	0.60	0.50	3.80	

Suggested Pad Layout

LTB Unit：mm

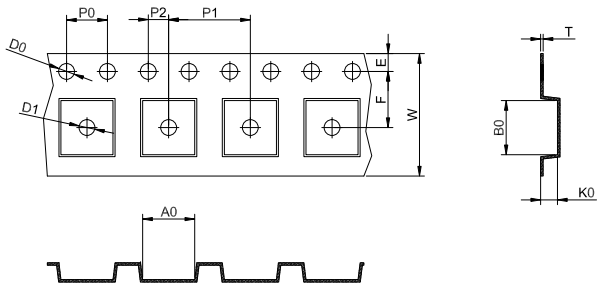


Note:

1. Controlling dimension:in millimeters.
2. General tolerance:±0.05mm
3. The pad layout is for reference purpose only.

Carrier Tape Dimensions

Unit：mm

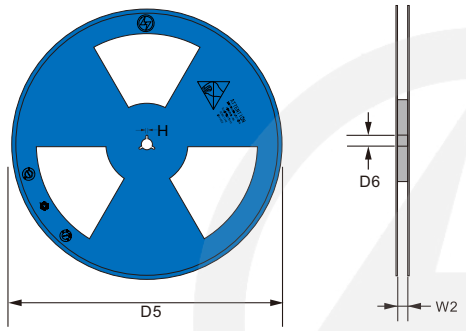


Symbol	Spec	Symbol	Spec
W	12.00±0.10	P1	8.00±0.10
E	1.75±0.10	P2	2.00±0.05
F	5.50±0.05	T	0.25±0.02
D0	1.55±0.05	A0	5.10±0.10
D1	1.55±0.10	B0	5.30±0.10
P0	4.00±0.10	K0	1.65±0.05

Reel Dimensions

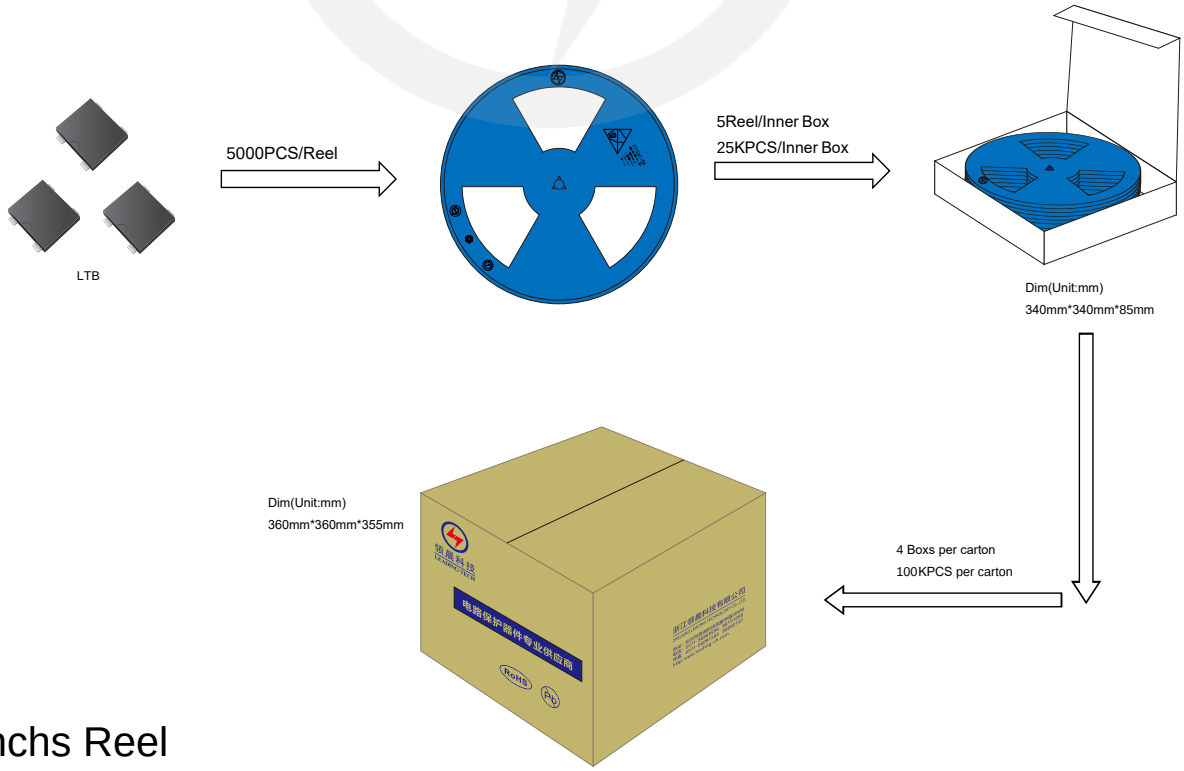
Unit：mm

13” Reel



D5	Φ330.0±2.0
D6	Φ13.5±0.5
H	2.5±1.0
W2	12±2.0
Quantity: 5000PCS	

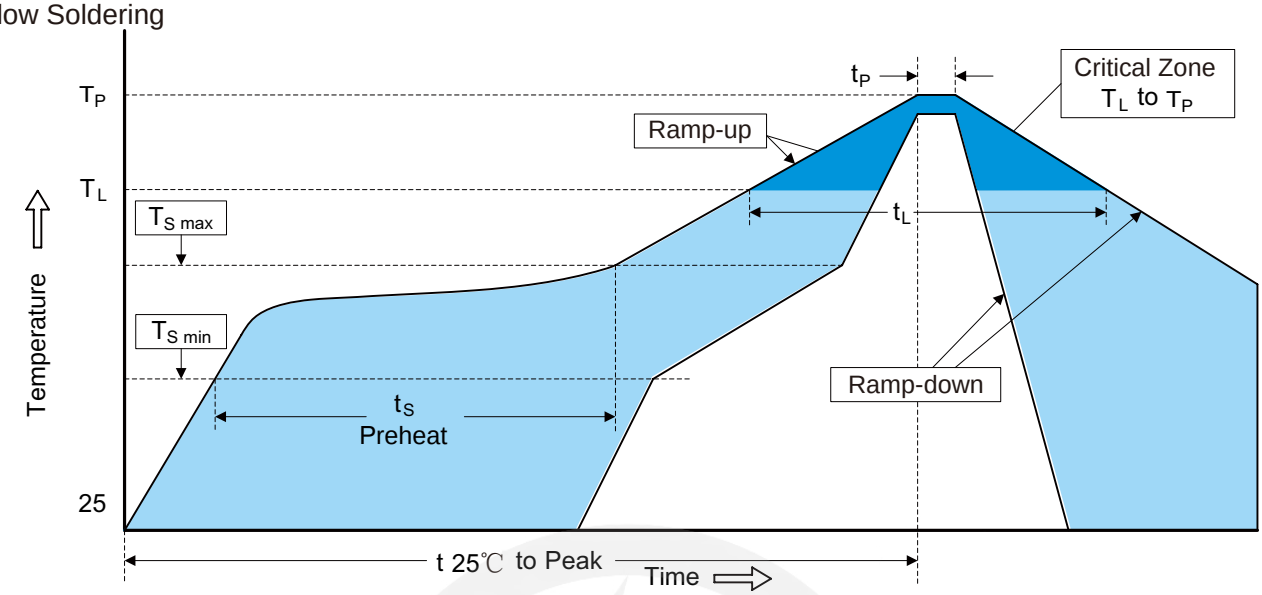
Packaging



13 inchs Reel

Recommended Soldering Conditions

Reflow Soldering



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3℃/second max.
Preheat -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_S)	 150℃ 200℃ 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	 3℃/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	 217℃ 60-150 seconds
Peak Temperature (T_P)	260℃
Time within 5℃ of actual Peak Temperature (t_P)	20-40 seconds
Ramp-down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8 minutes max.

Important Notice and Disclaimer

Leading-Tech reverses the right to make changes to this document and its products and specifications at any time without notice.

Customers should obtain and confirm the latest product information and specifications before final design,purchase or use.

Leading-Tech makes no warranty,representation or guarantee regarding the suitability of its products for any particular purpose,not does Leading-Tech assume any liability for application assistance or customer product design.

Leading-Tech does not warrant or accept any liability with products which are purchase or used for anyunintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Leading-Tech.

Leading-Tech products are not authorized for use as critical components in life support devices or systems without express written approval of Leading-tech.

Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision content	Revision Reason	Revision Person	Note
01	2024.3.17	2024.3.17	1.0	New File	/	Ding	
02	2025.06.27	2025.06.27	1.1	Update packaging information	/	Ding	
03	2025.07.30	2025.07.30	1.2	Update Suggested Pad Layout	/	Ding	