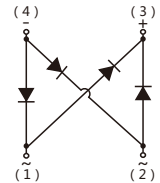
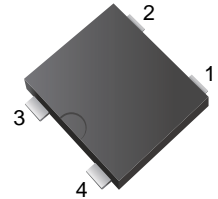


Surface Mount Bridge Rectifier

Features

- Reverse Voltage 40 to 200 V
- Forward Current 1 A
- 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	Shipping	Reel
LTB14S THRU LTB120S	5000PCS Tape&Reel	13 inches



Maximum Ratings and Electrical Characteristics

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

Parameter	Symbol	LTB14S	LTB16S	LTB18S	LTB110S	LTB115S	LTB120S	Unit
	Marking	LTB14S	LTB16S	LTB18S	LTB110S	LTB115S	LTB120S	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current at $T_c = 100^\circ\text{C}$	$I_{F(AV)}$	1						A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30						A
Max Instantaneous Forward Voltage at 1 A	V_F	0.55	0.70	0.85		0.90		V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	I_R	0.3 10		0.2 5		0.1 2		mA
Typical Junction Capacitance (Note1)	C_J	110	80					pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	100						$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-55 ~ +125						$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ +150						$^\circ\text{C}$

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

(2) Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81cm×3.81cm) copper pad.



Characteristic Curves

FIG.1 FORWARD CURRENT DERATING CURVE

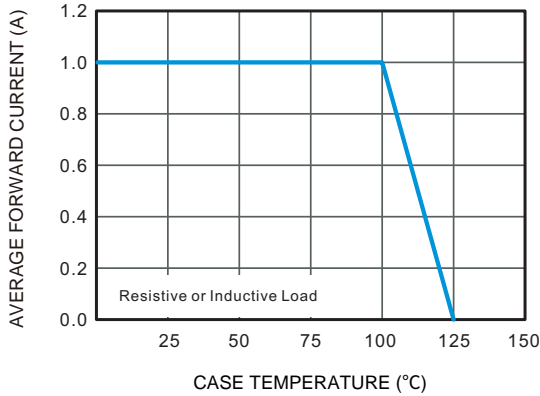


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

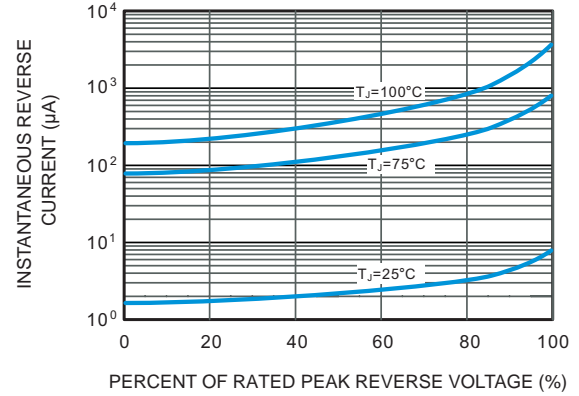


FIG. 3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

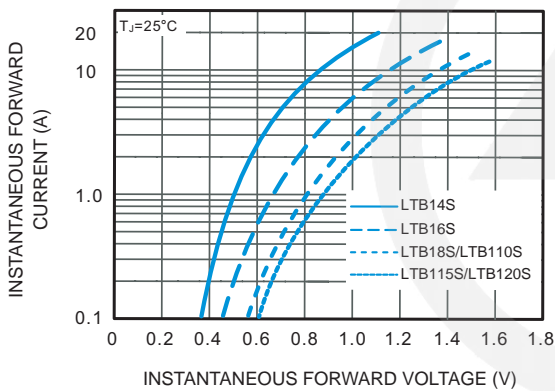


FIG. 4 TYPICAL JUNCTION CAPACITANCE

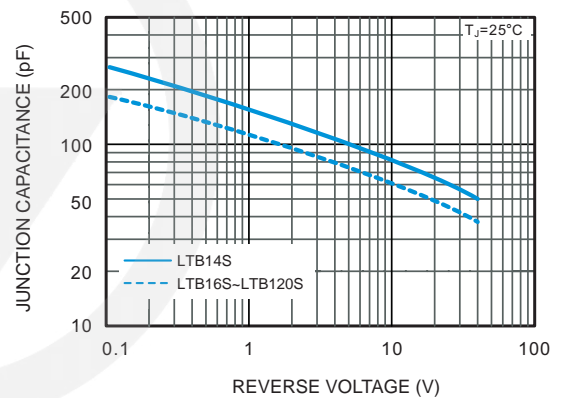


FIG. 2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

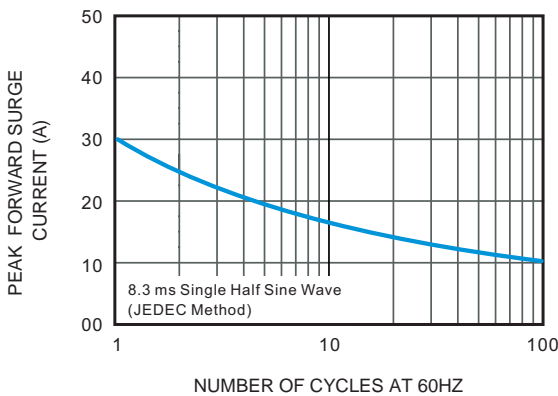
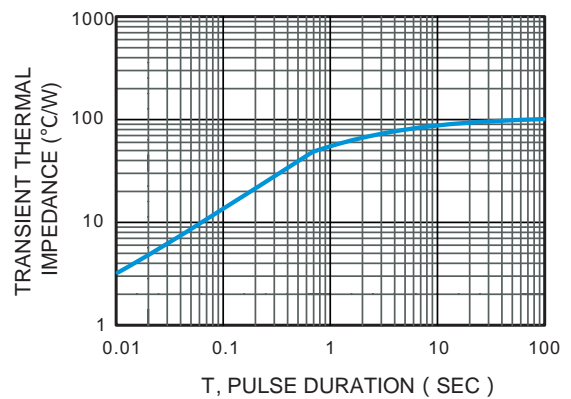
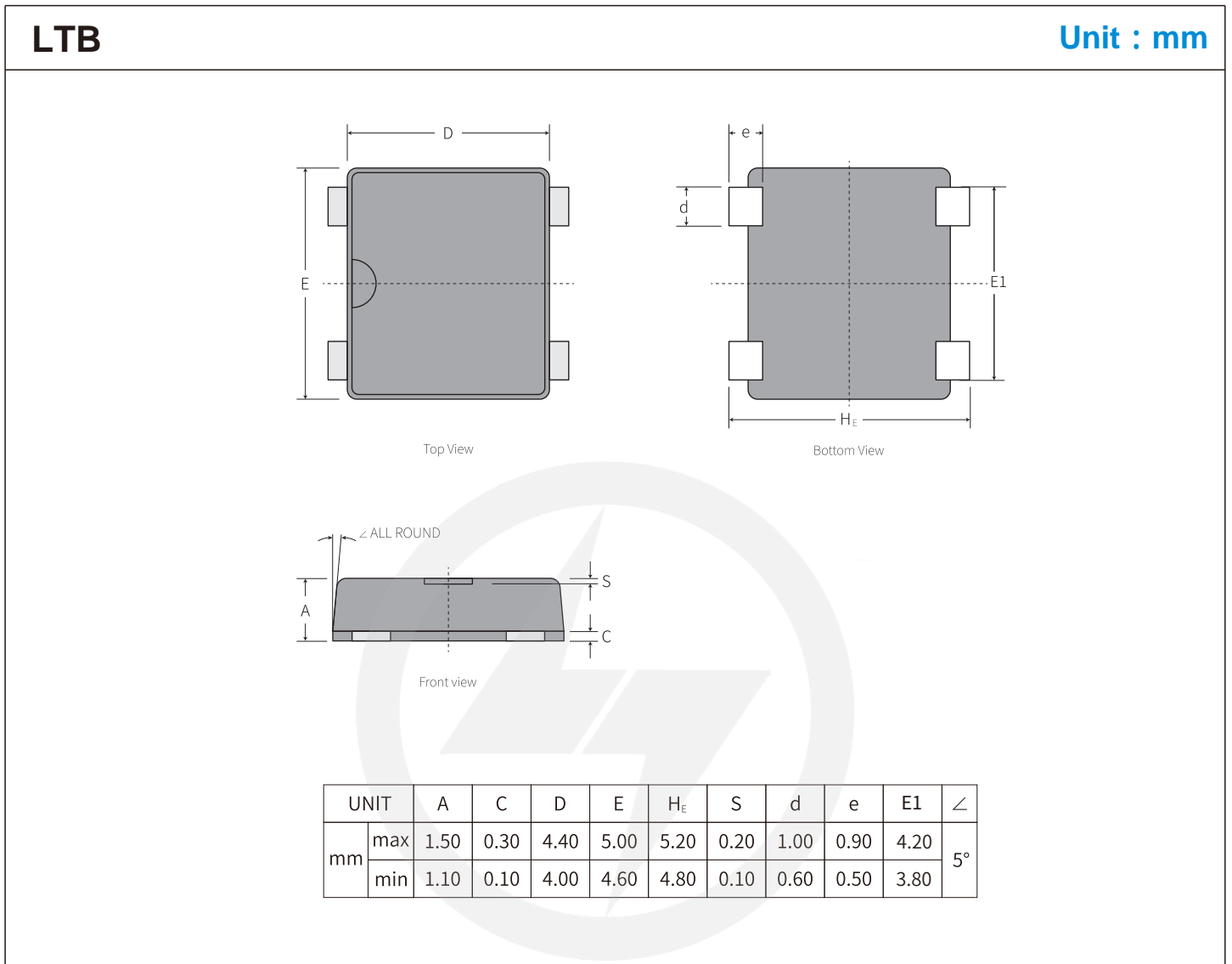


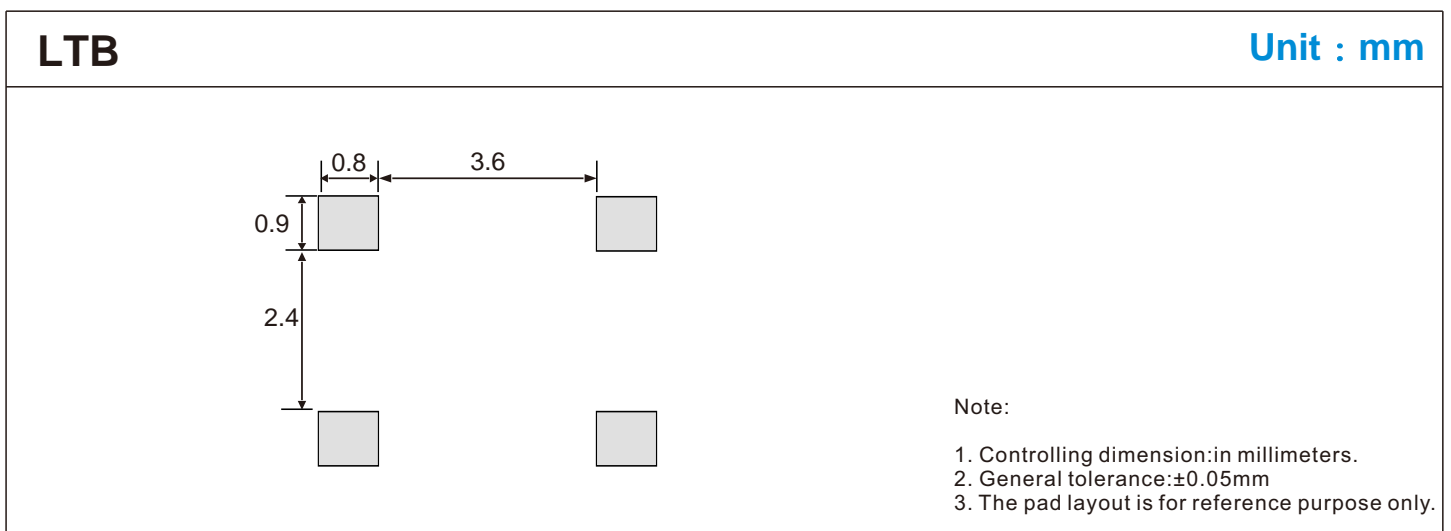
FIG.6 TYPICAL TRANSIENT THERMAL IMPEDANCE



Package Outline

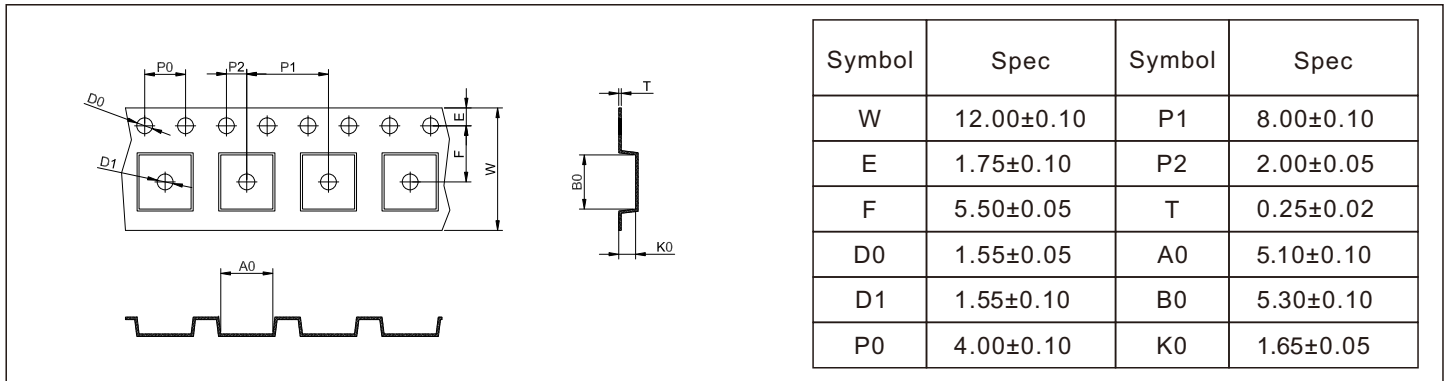


Suggested Pad Layout



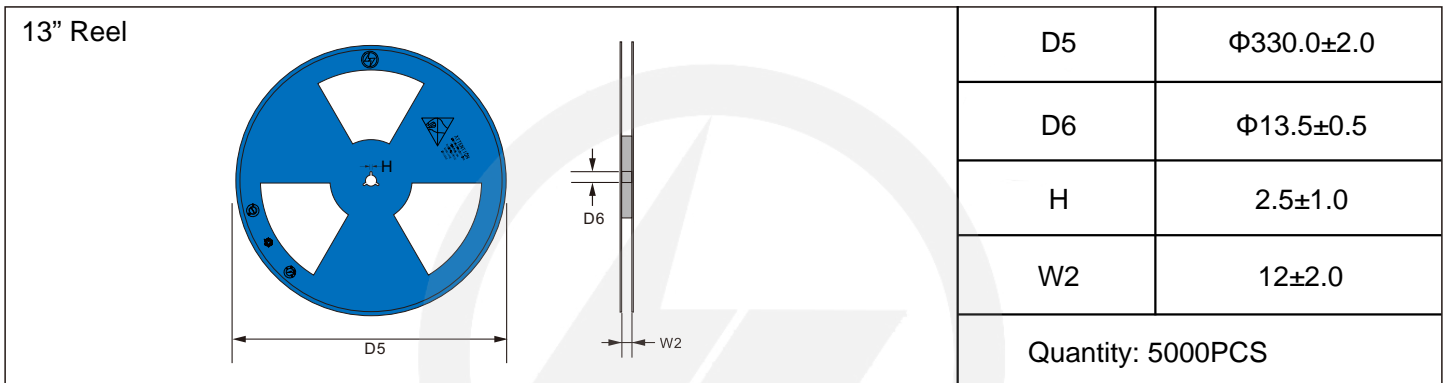
Carrier Tape Dimensions

Unit : mm

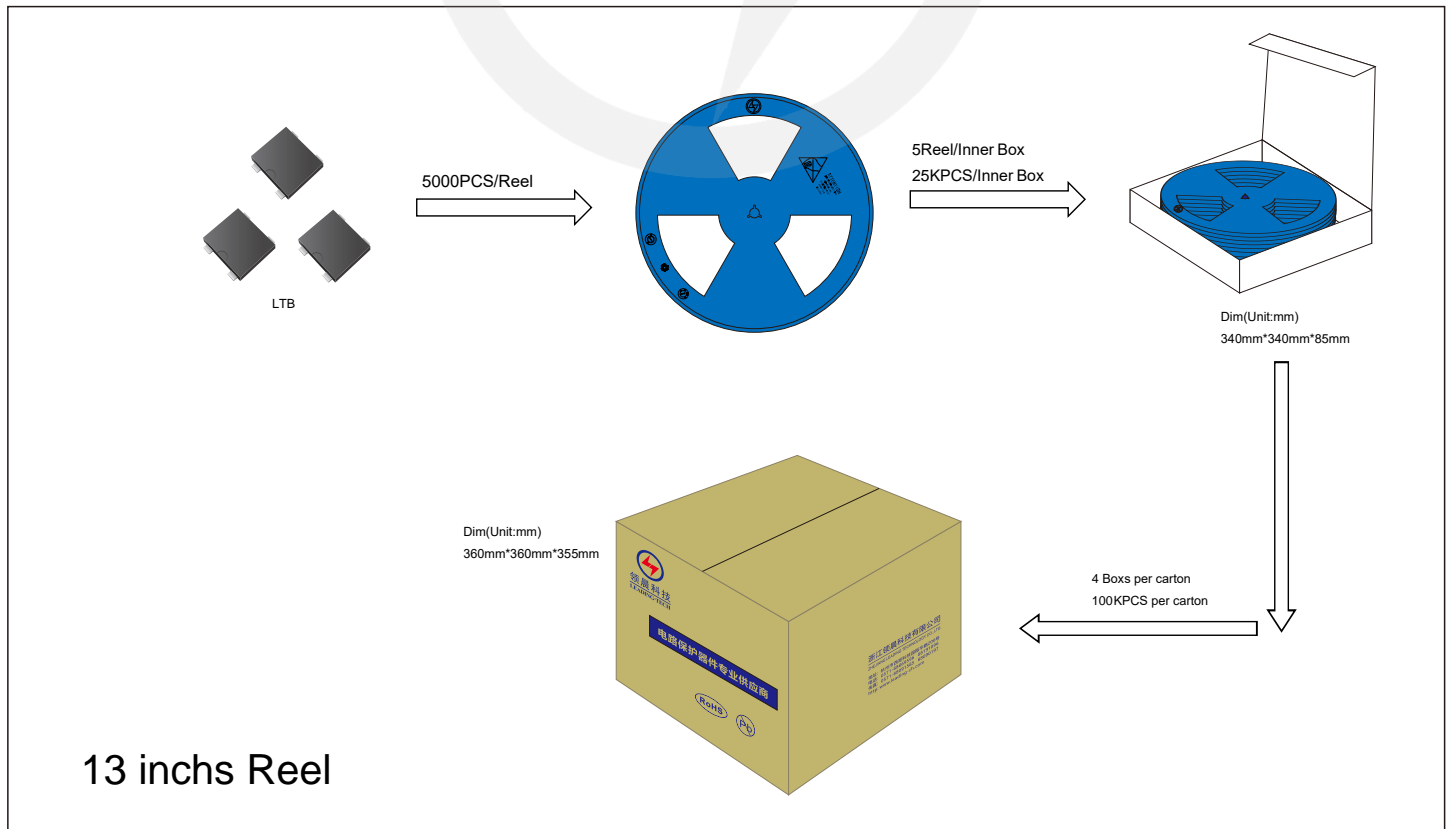


Reel Dimensions

Unit : mm



Packaging





Recommended Soldering Conditions



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T _L to T _P)	3°C/second max.
Preheat	
-Temperature Min (T _{S min})	150°C
-Temperature Max (T _{S max})	200°C
-Time (min to max) (t _s)	60-180 seconds
T _{S max} to T _L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T _L)	217°C
-Time (t _L)	60-150 seconds
Peak Temperature (T _P)	260°C
Time within 5°C of actual Peak Temperature (t _p)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

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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	2025.06.21	2025.06.21	1.1	Update packaging information	/	Ding	
03	2025.07.15	2025.07.15	1.2	Revise IFSM=30A	/	Ding	
04	2025.07.30	2025.07.30	1.3	Update Suggested Pad Layout	/	Ding	