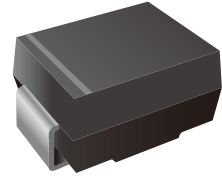


## Surface Mount Schottky Barrier Rectifier

### Features

- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- Lead free in comply with EU RoHS 2011/65/EU directives



### Mechanical Data

- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Mounting Position: Any
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.1g

### Ordering Information

Part Number	Shipping	Reel
LT22B THRU LT220B-TR3	3000PCS 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	LT22B	LT24B	LT26B	LT28B	LT210B	LT215B	LT220B	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	40	60	80	100	150	200	V
Maximum RMS voltage	$V_{RMS}$	14	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	20	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current at $T_L$ (see fig.1)	$I_{(AV)}$	2.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	50							A
Max Instantaneous Forward Voltage at 2 A	$V_F$	0.55		0.70	0.85			0.95	V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	$I_R$	0.5					0.2		mA
		10			5.0		2.0		
Typical Junction Capacitance (Note1)	$C_j$	220			180				pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	75							$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_j$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150							$^\circ\text{C}$

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

( 2 ) PCB mounted with 2.0" x 2.0" (5cm x 5cm) copper pad areas.



Characteristics Curves

FIG. 1 FORWARD CURRENT DERATING CURVE

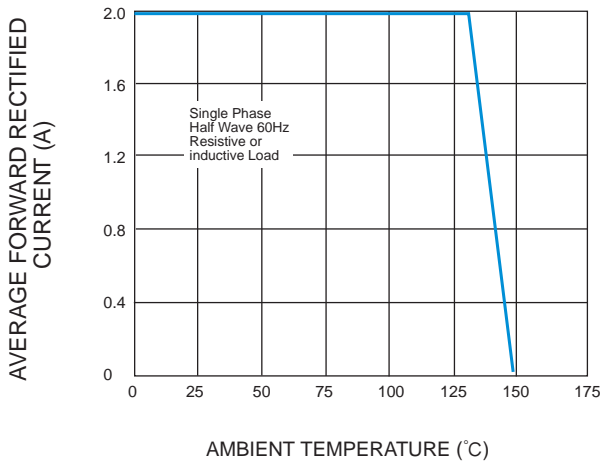


FIG. 2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

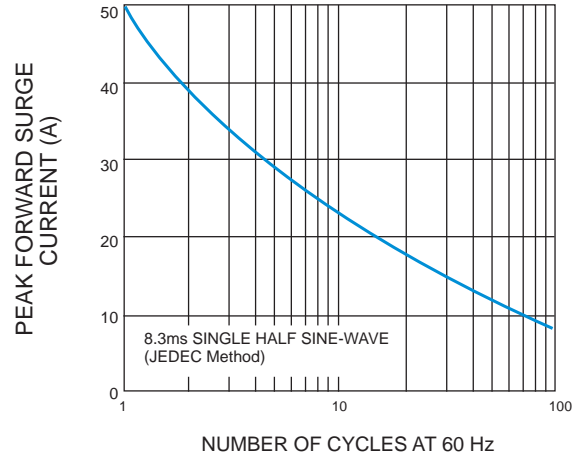


FIG. 3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

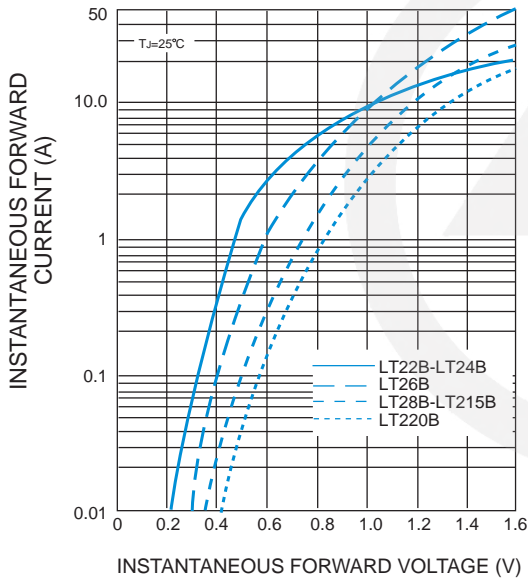


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

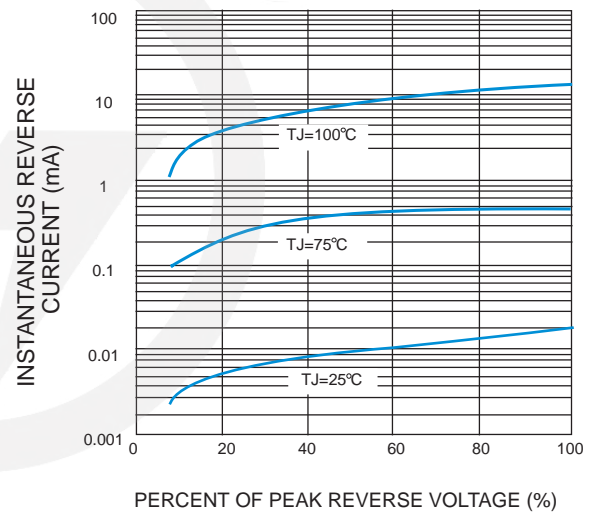


FIG. 5 TYPICAL JUNCTION CAPACITANCE

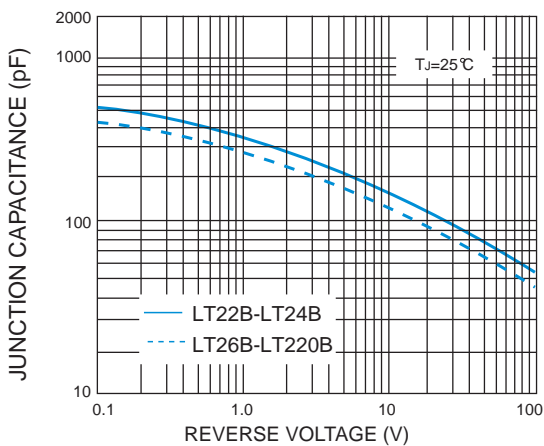
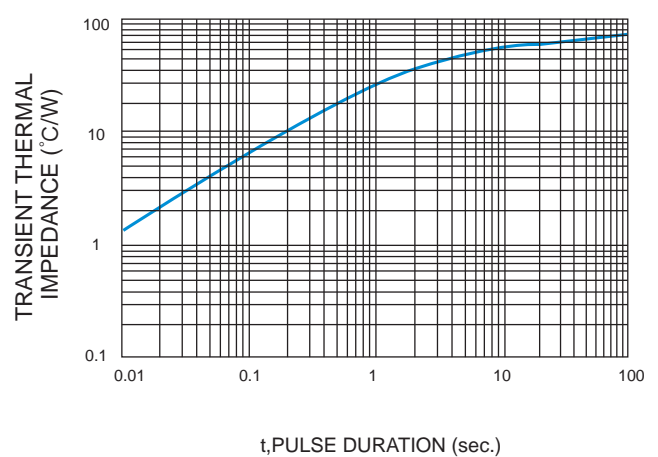
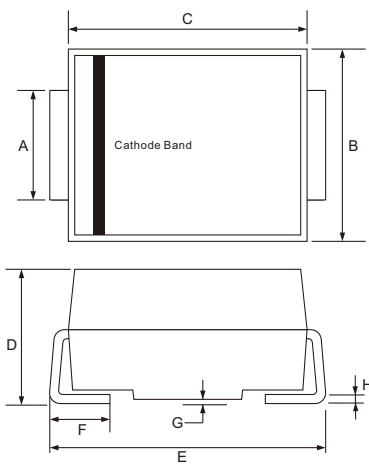


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE



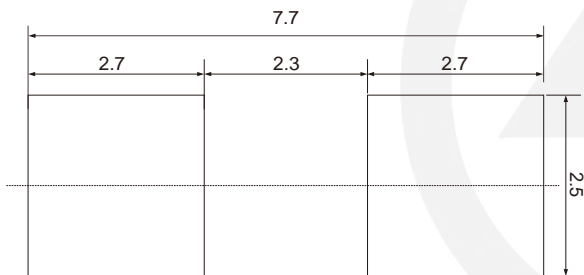
## SMB Package Outline



Unit: mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.90	2.20
B	3.30	3.94
C	4.05	4.75
D	2.13	2.65
E	5.08	5.59
F	0.76	1.52
G	0.203 TYP.	
H	0.15	0.31

## SMB Suggested Pad Layout



**Note:**

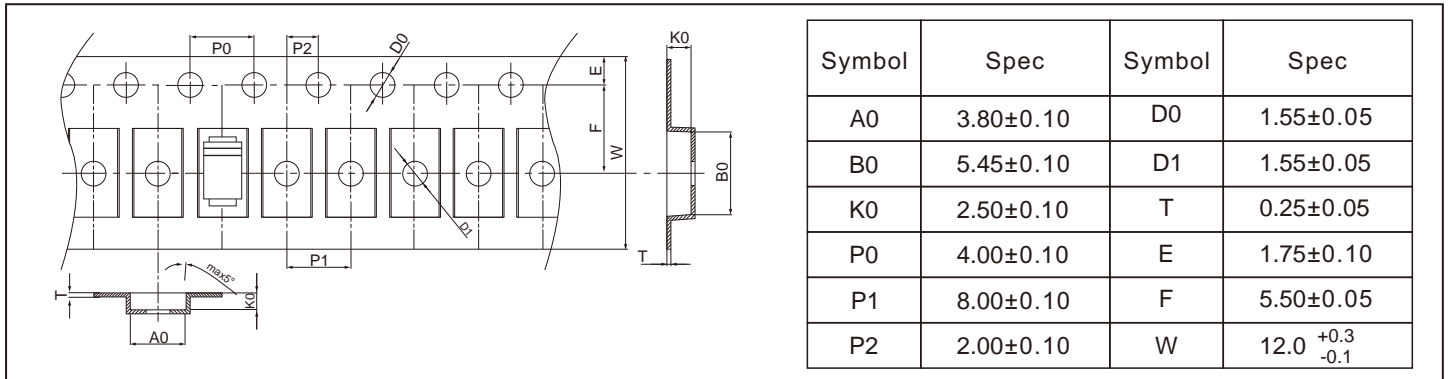
1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$
3. The pad layout is for reference purpose only.

## Marking

Type number	Marking code
LT22B	SS22
LT24B	SS24
LT26B	SS26
LT28B	SS28
LT210B	SS210
LT215B	SS215
LT220B	SS220

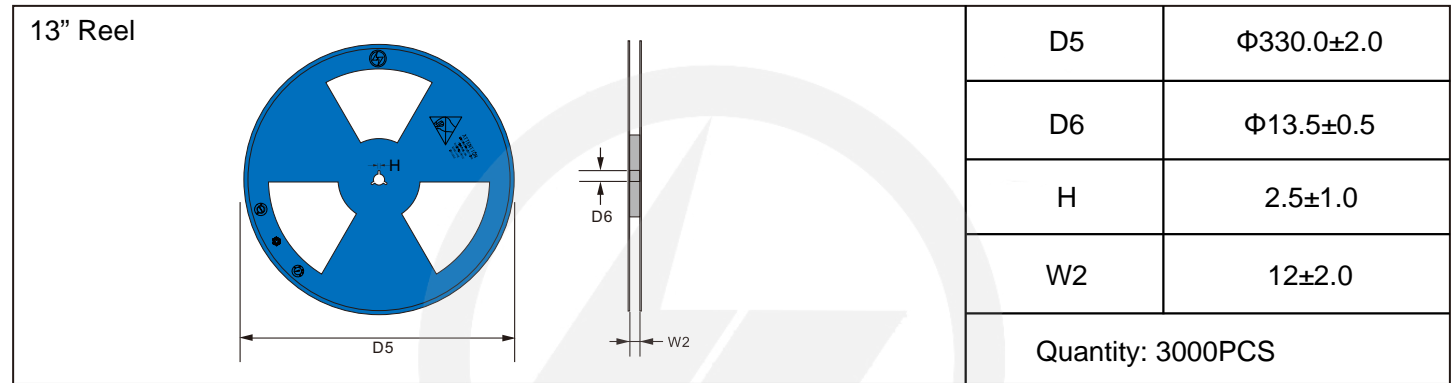
## Carrier Tape Dimensions

Unit : mm

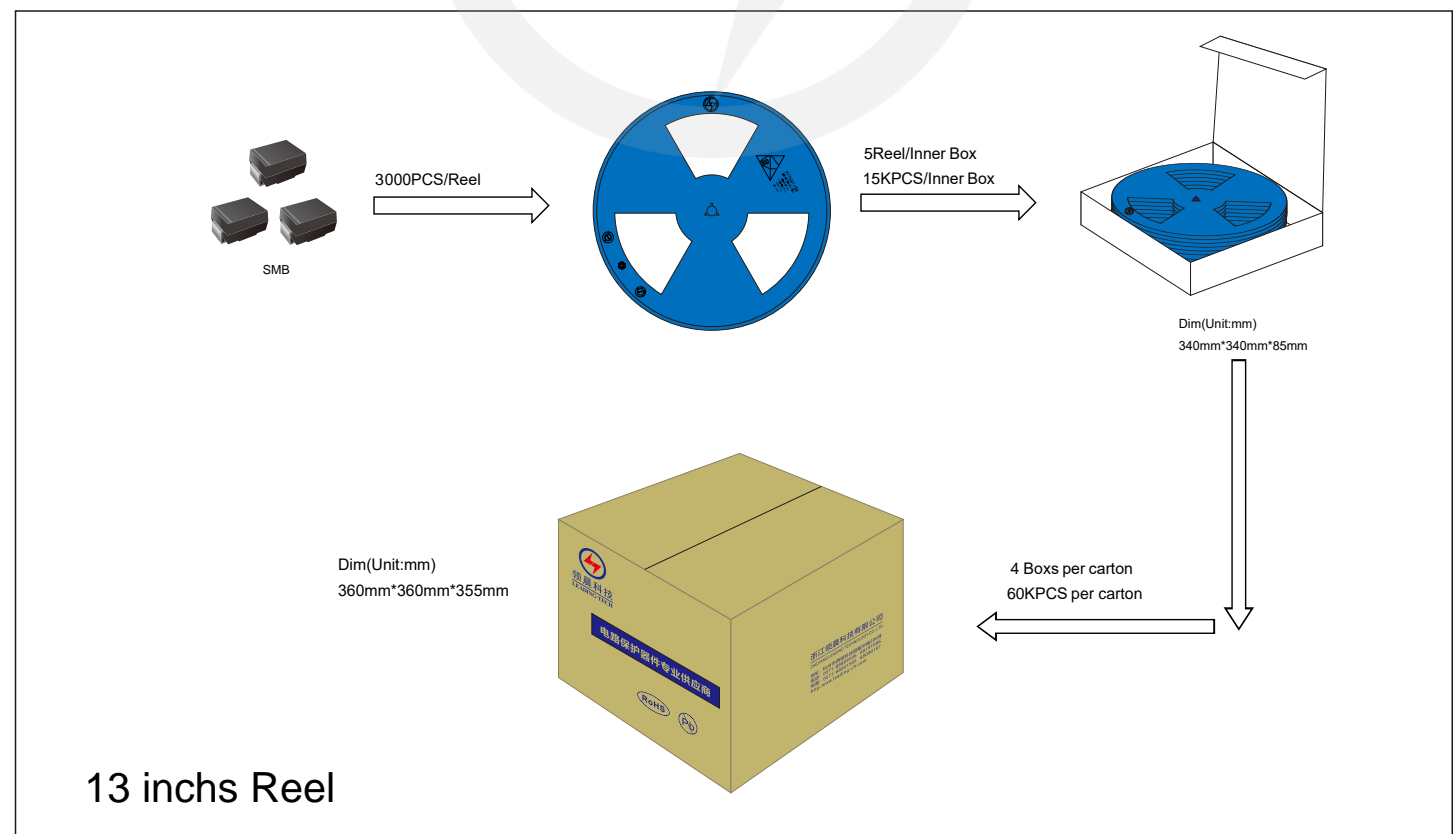


## Reel Dimensions

Unit : mm



## Packaging





Recommended Soldering Conditions



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T <sub>L</sub> to T <sub>P</sub> )	3°C/second max.
Preheat	
-Temperature Min (T <sub>S min</sub> )	150°C
-Temperature Max (T <sub>S max</sub> )	200°C
-Time (min to max) (t <sub>s</sub> )	60-180 seconds
T <sub>S max</sub> to T <sub>L</sub>	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T <sub>L</sub> )	217°C
-Time (t <sub>L</sub> )	60-150 seconds
Peak Temperature (T <sub>P</sub> )	260°C
Time within 5°C of actual Peak Temperature (t <sub>p</sub> )	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	2024.04.18	2024.04.18	3.0	New file	/	Ding	