

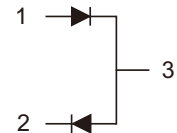
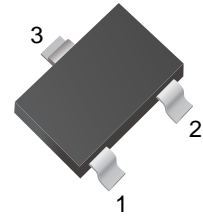
Dual Series Schottky Barrier Diode

Features

- Extremely Fast Switching Speed
- Lead free in comply with EU RoHS 2011/65/EU directives

Ordering Information

Part Number	Marking	Shipping	Reel
LTS54B8-TR3	B8 or KL8	3000PCS Tape&Reel	7 inches
LTS54B8-TR12	B8 or KL8	12000PCS Tape&Reel	13 inches



Maximum Ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Limit	Unit
Reverse Voltage	V_R	30	Vdc
Forward Current	I_F	200	mAdc

Thermal Characteristics

Parameter	Symbol	Limit	Unit
Total Device Dissipation, FR-5 Board (Note 1) @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	200 2.0	mW mW/ $^\circ\text{C}$
Thermal Resistance, Junction-to-Ambient(Note 1)	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$
Junction and Storage temperature	T_J, T_{stg}	$-55 \sim +125$	$^\circ\text{C}$

1. FR-5 = $1.0 \times 0.75 \times 0.062$ in.

Electrical Characteristics ($T_a=25^\circ\text{C}$)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage ($I_R = 10\mu\text{A}$)	V_{BR}	30			V
Reverse Voltage Leakage Current ($V_R = 25\text{V}$)	I_R		0.5	2	μA
Diode Capacitance ($V_R = 1.0\text{V}$, $f = 1.0\text{MHz}$)	C_T			10	pF
Forward Voltage ($I_F = 0.1\text{mA}$) ($I_F = 1\text{mA}$) ($I_F = 10\text{mA}$) ($I_F = 30\text{mA}$) ($I_F = 100\text{mA}$)	V_F		0.22 0.29 0.35 0.41 0.52	0.24 0.32 0.4 0.5 1	V
Reverse Recovery Time ($I_F = I_R = 10\text{mAdc}$, $I_{R(REC)} = 1.0\text{mAdc}$)	t_{rr}			5	ns
Repetitive Peak Forward Current	I_{FRM}			300	mA
Non-Repetitive Peak Forward Current ($t < 1.0\text{s}$)	I_{FSM}			600	mA



Electrical Characteristics Curves

Fig.1 Forward Characteristics

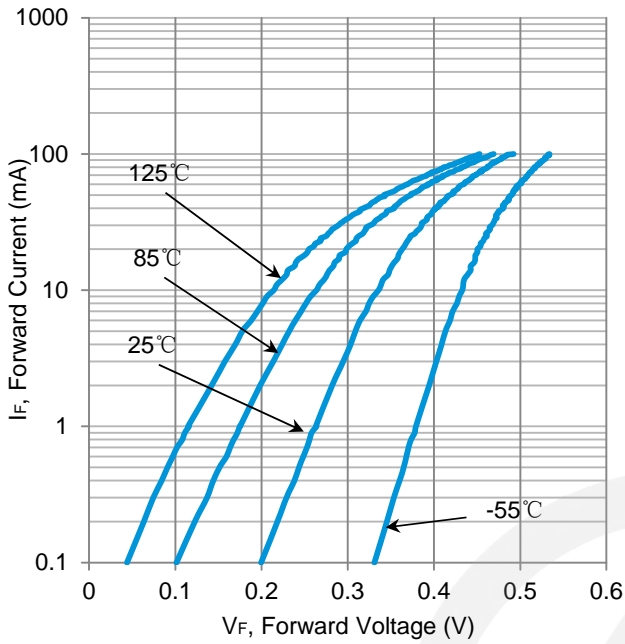


Fig.2 Reverse Characteristics

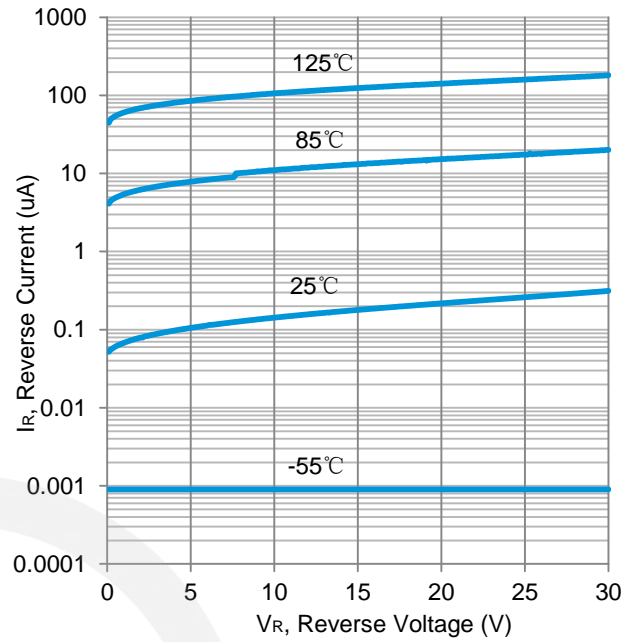
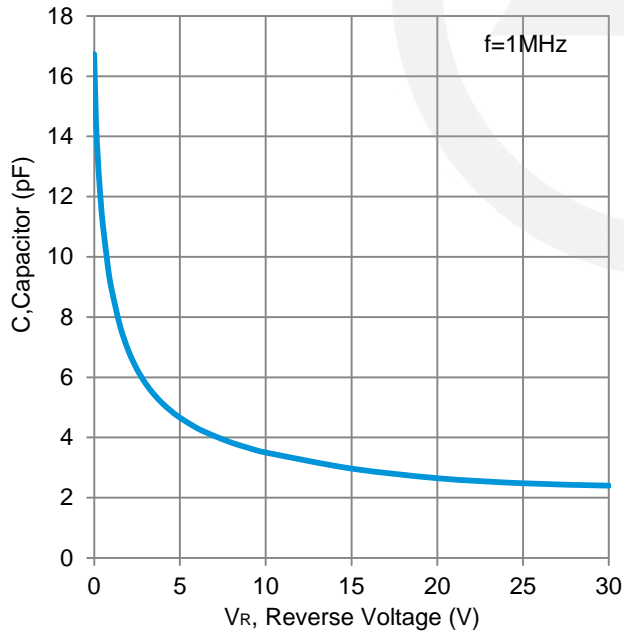
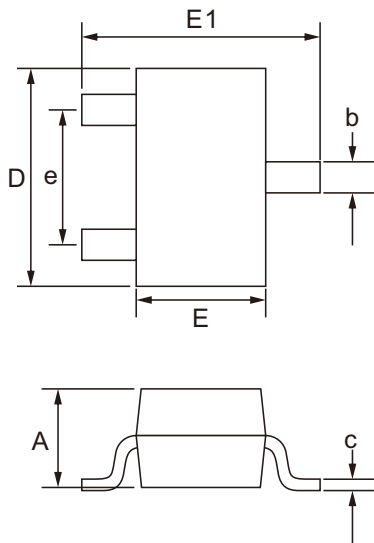


Fig.3 Capacitor Characteristics



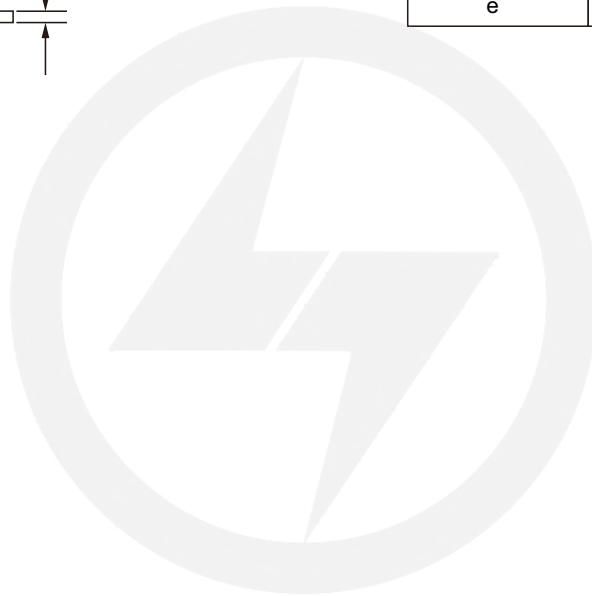


SOT-323 Package Outline



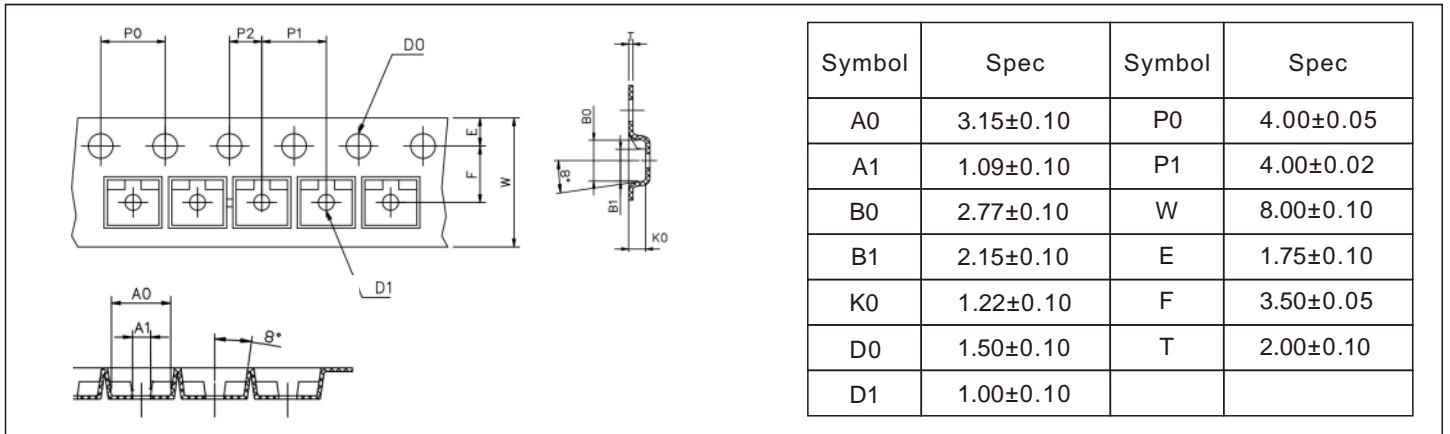
Unit: mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.800	1.000
b	0.200	0.400
D	1.800	2.200
E	1.150	1.350
E1	2.150	2.450
C	0.080	0.250
e	1.200	1.400



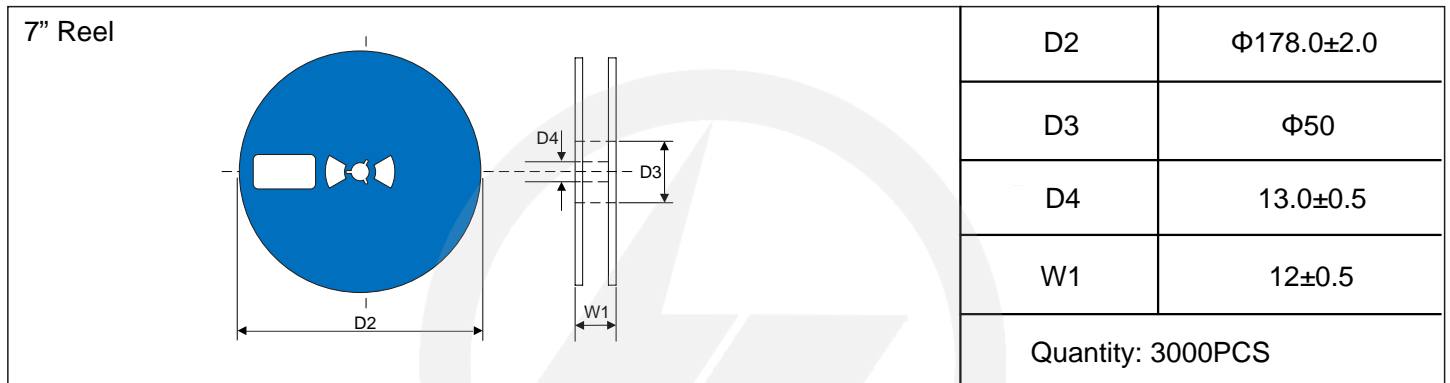
Carrier Tape Dimensions

Unit : mm



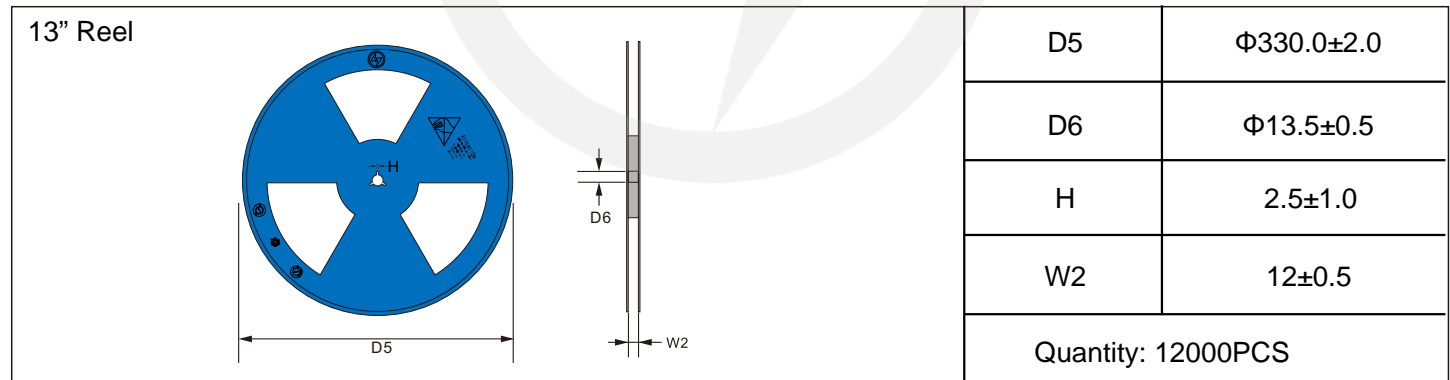
Reel Dimensions

Unit : mm

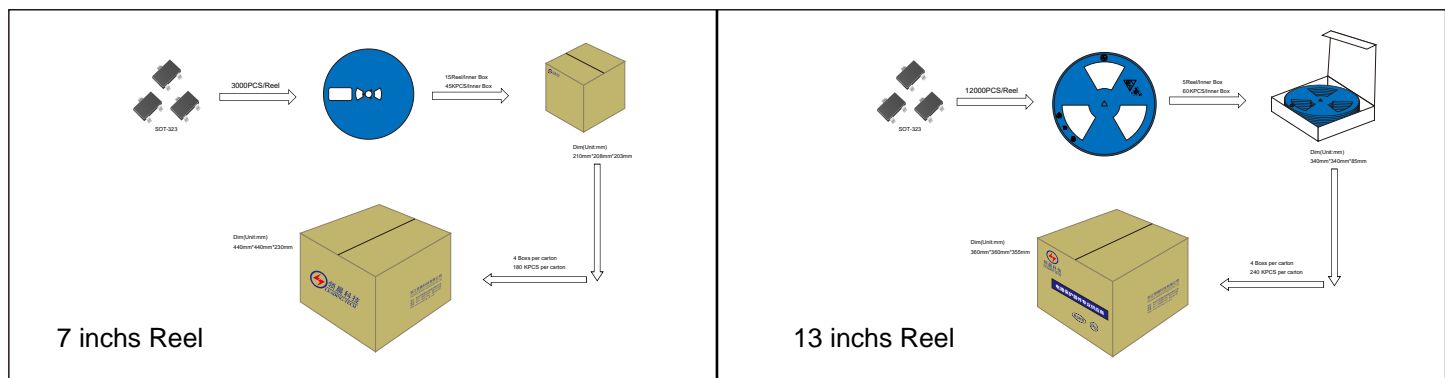


Reel Dimensions

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	2024.3.12	2024.3.12	3.0	New File	/	Ding	
02	2025.06.16	2025.06.16	3.1	Update packaging information	/	Ding	