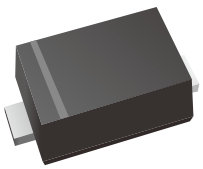
Schottky Barrier Diode

Features



- Lead free in comply with EU RoHS 2011/65/EU directives
- Extremely fast switching speed
- Extremely low forward voltage 0.6 V (max) @ IF = 200mA
- Low reverse current

Mechanical Data

- Case:SOD-523
- Polarity: Color band denotes cathode end
- Approx. Weight: 1.4mg

Applications

- Low current rectification and high speed switching

Ordering Information

Part Number	Marking	Shipping	Reel
LTS5J-TR3	5J or B or S1	3000PCS Tape&Reel	7 inchs
LTS5J-TR10	5J or B or S1	10000PCS Tape&Reel	7 inchs

Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limit	Unit
DC reverse voltage	VR	30	V
Mean rectifying current	IO	200	mA
Peak forward surge current	IFSM	1	A
Power Dissipation	Pd	150	mW
Junction temperature	Tj	-40~+125	°C
Storage temperature	Tstg	-50~+150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	667	°C/W

Electrical Characteristics (Ta =25°C unless otherwise specified)

Parameter	Symbol	Min	Typ.	Max	Unit
Forward voltage (IF =200mA)	VF	-	-	0.6	V
Reverse current (VR =10V)	IR	-	-	1	μA

Electrical characteristics Curves

Fig.1 Forward Characteristics

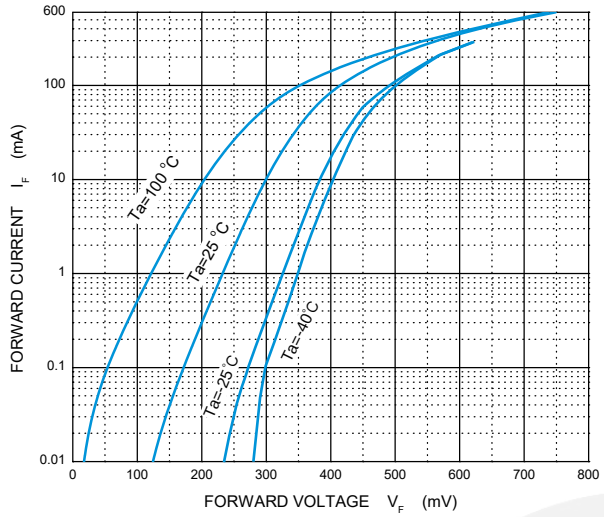


Fig.2 Reverse Characteristics

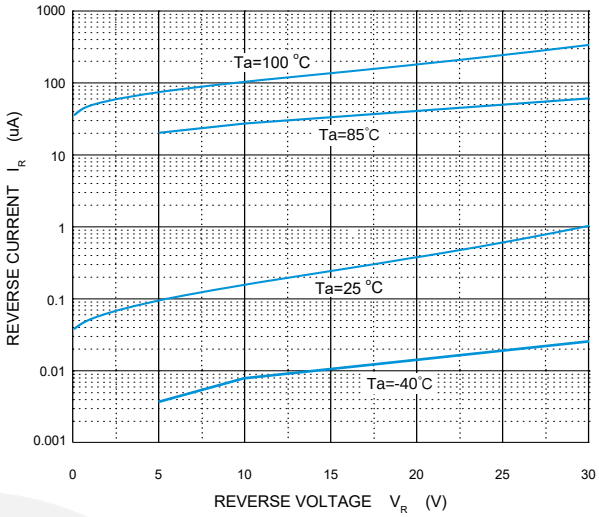


Fig.3 Capacitance Characteristics

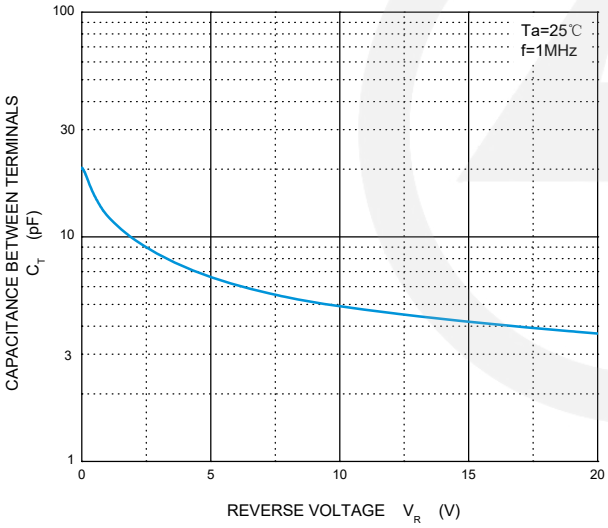
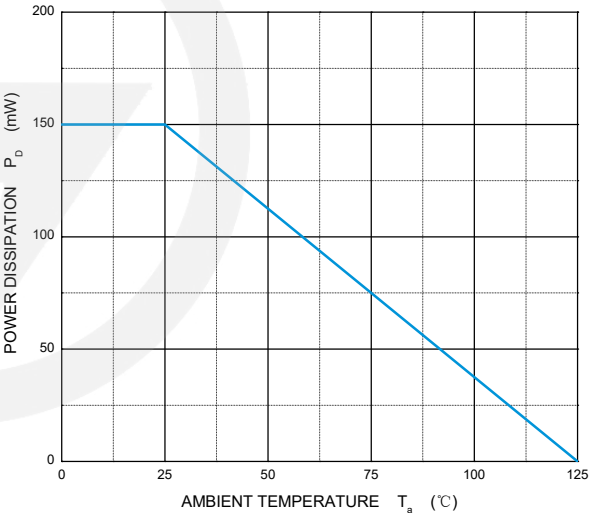
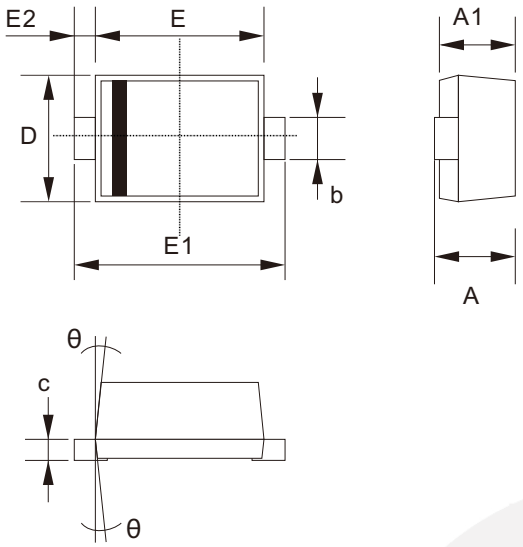


Fig.4 Power Derating Curve



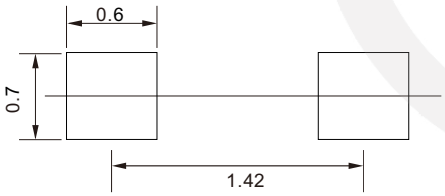
SOD-523 Package Outline



Unit: mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.500	0.770
A1	0.500	0.700
b	0.250	0.380
c	0.070	0.200
D	0.700	0.900
E	1.100	1.300
E1	1.500	1.700
E2	0.200 REF	
θ	7° REF	

SOD-523 Suggested Pad Layout

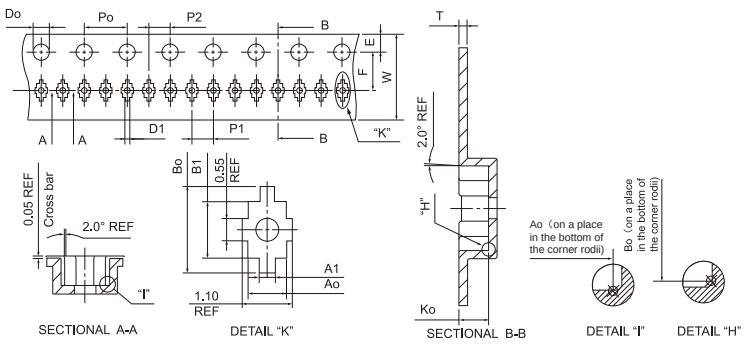


Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

LTS5J

Carrier Tape Dimensions

Unit：mm

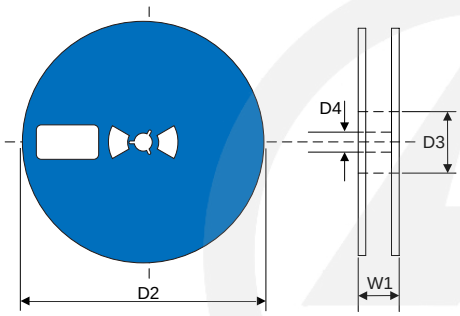


Symbol	Spec	Symbol	Spec
A0	0.90±0.05	P0	4.00±0.10
A1	0.39±0.05	P1	2.00±0.05
B0	1.95±0.10	P2	2.00±0.05
B1	1.30±0.05	D0	1.50 $^{+0.10}_{0}$
K0	0.69±0.05	D1	0.50±0.05
10P0	40.0±0.10	F	3.50±0.05
T	0.18±0.02	W	8.00 $^{+0.30}_{-0.10}$
E	1.75±0.10		

Reel Dimensions

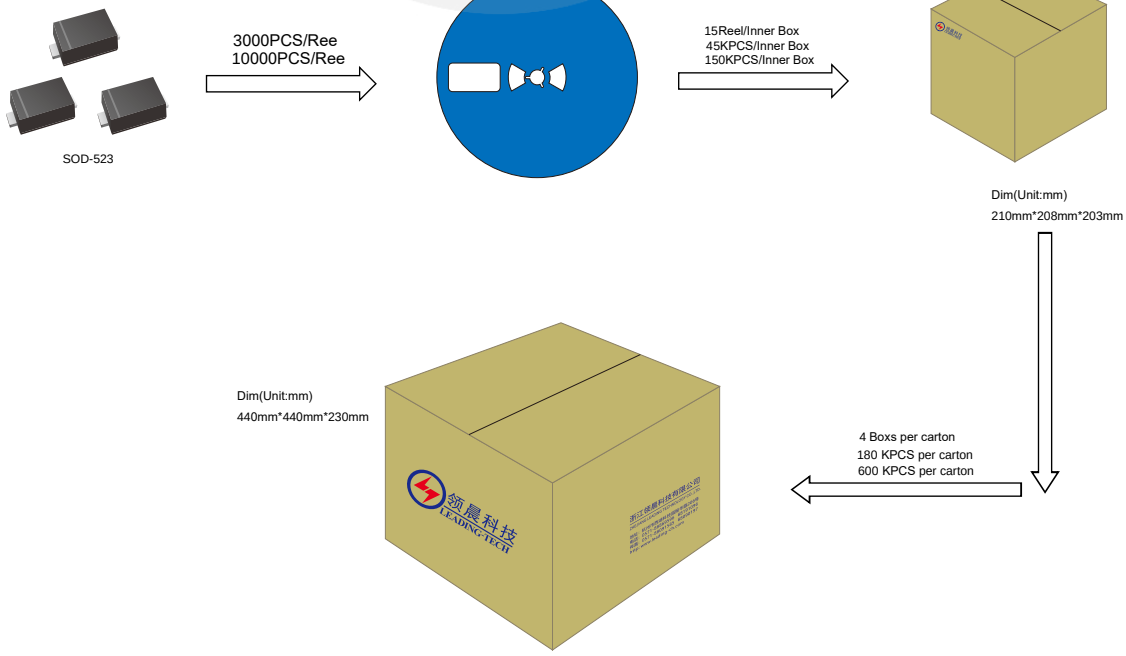
Unit：mm

7” Reel



D2	Φ178.0±2.0
D3	Φ50.0
D4	13.0±0.5
W1	12±0.5
Quantity: 3000/10000PCS	

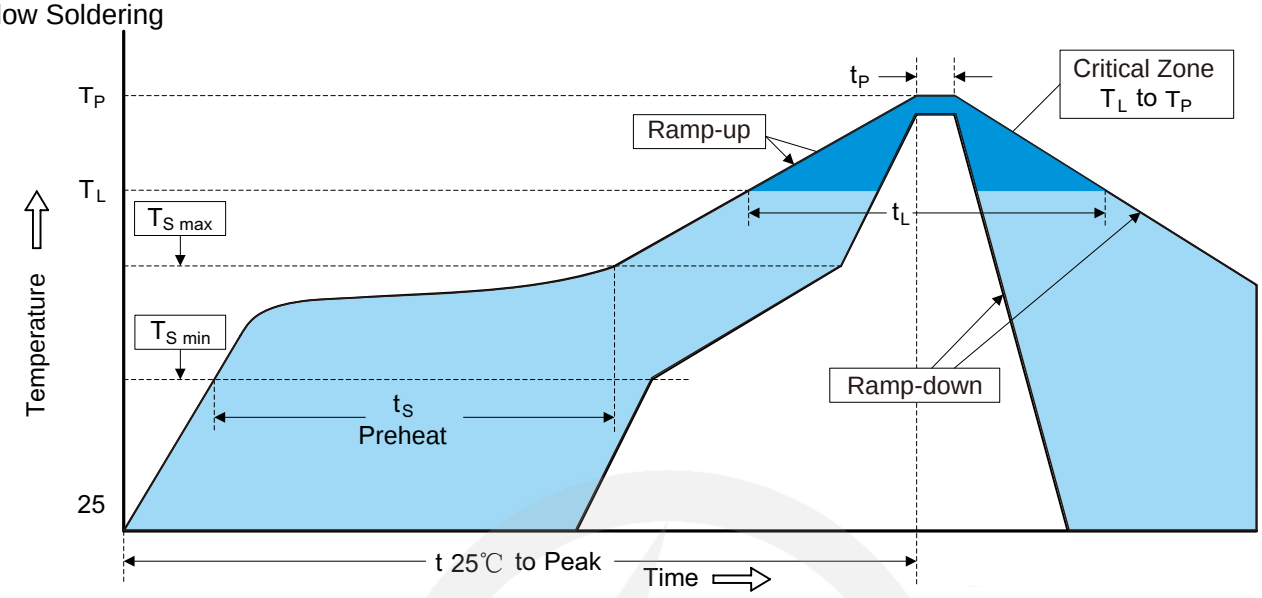
Packaging



7 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.

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Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision Content	Revision Reason	Revision Person	Note
01	2024.04.05	2024.04.05	3.0	New file	/	Ding	
02	2025.08.04	2025.08.04	3.1	Modify junction temperature parameters	/	Ding	
03	2026.02.03	2026.02.03	3.2	Modify V_F and I_R curves	/	Ding	