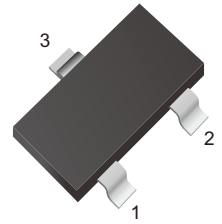


Switching Diode

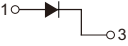


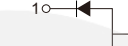
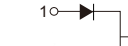
Features

- Fast Switching Speed
- Power Dissipation of 350mW
- High Stability and High Reliability
- Low reverse leakage
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

- Case: SOT-23
- Approx. Weight: 8.1mg

LT4148D1	LT4148D4	LT4148D5	LT4148D6	LT4148D7
				
MARKING:5H	MARKING:D4	MARKING:D5	MARKING:D6	MARKING:D7

Ordering Information

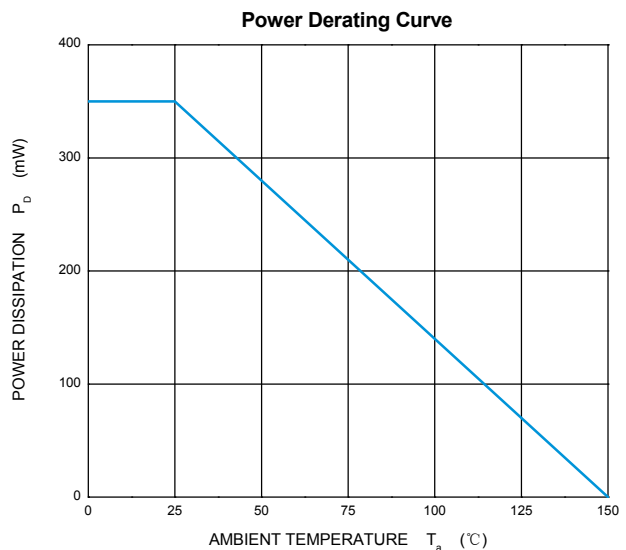
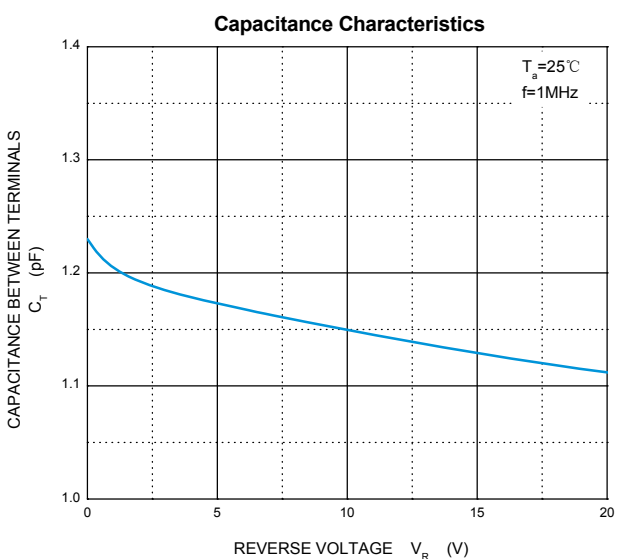
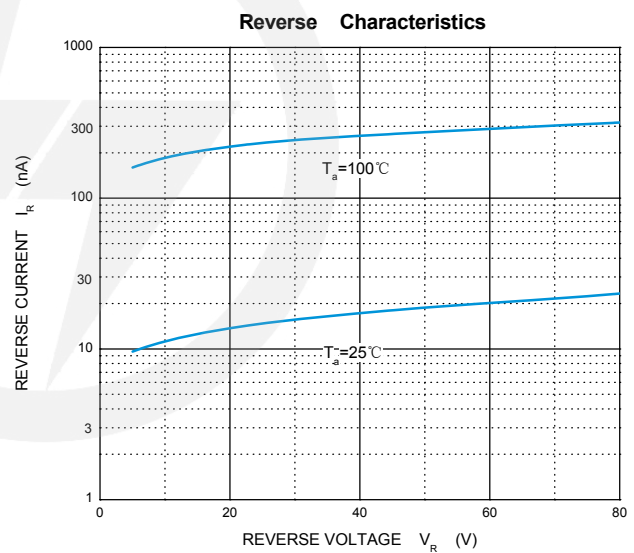
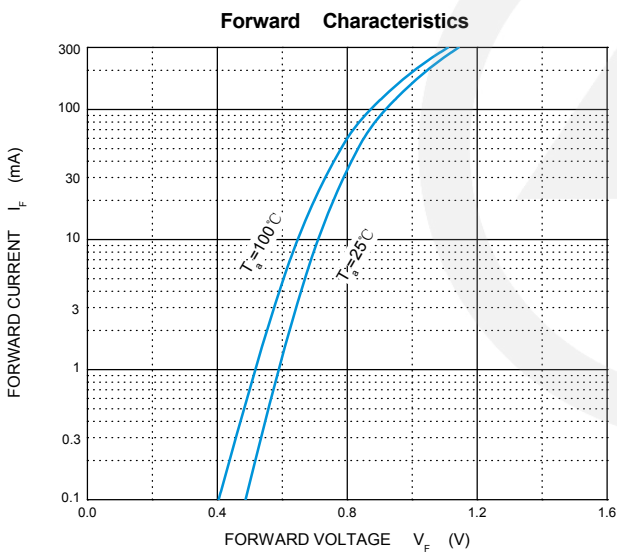
Part Number	Shipping	Reel
LT4148D1/D4/D5/D6/D7-TR3	3000PCS Tape&Reel	7 inches
LT4148D1/D4/D5/D6/D7-TR12	12000PCS Tape&Reel	13 inches

Maximum Ratings at 25 °C

Parameter	Symbol	Limit	Unit
Reverse Voltage	V_R	75	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Average Rectified Output Current	I_O	200	mA
Non-Repetitive Peak Forward Surge Current @ t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_D	350	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	357	°C/W
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150	°C

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

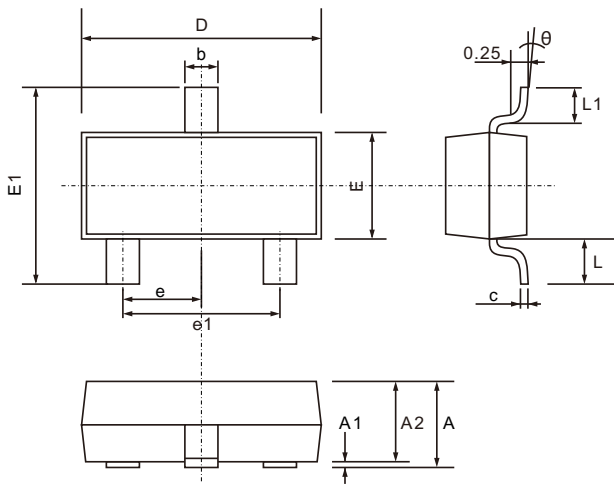
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	75			V	$I_R=100\mu\text{A}$
Forward voltage	V_F			1	V	$I_F=10\text{mA}$
Reverse current	I_{R1}			5	μA	$V_R=75\text{V}$
	I_{R2}			25	nA	$V_R=25\text{V}$
Capacitance between terminals	C_T			4	pF	$V_R=0\text{V}, f=1\text{MHz}$
Reverse recovery time	t_{rr}			4	ns	$I_F=I_R=10\text{mA}, V_R=6\text{V}, I_{rr}=0.1I_R, R_L=100\Omega$

Ratings and characteristics Curves




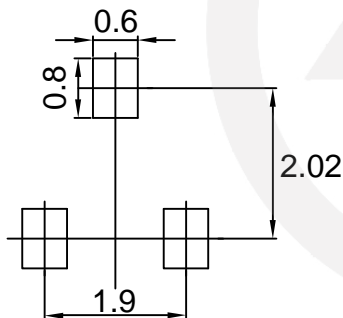
SOT-23 Package Outline

Unit: mm



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.200
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.200
D	2.700	3.100
E	1.200	1.400
E1	2.200	2.600
e	0.950 TYP.	
e1	1.750	2.050
L	0.550 TYP.	
L1	0.300	0.500
θ	0°	8°

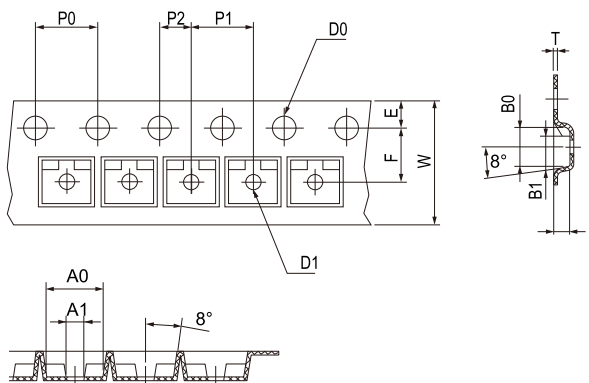
SOT-23 Suggested Pad Layout



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

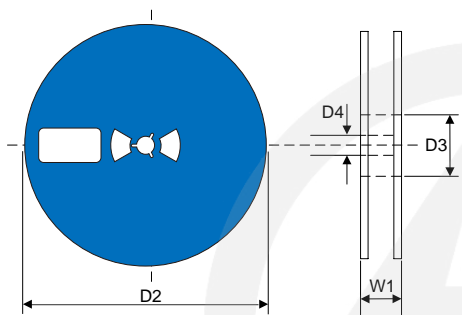
Carrier Tape Dimensions

Unit : mm

			
Symbol	Spec	Symbol	Spec
A0	3.15±0.10	P0	4.00±0.05
A1	1.09±0.10	P1	4.00±0.02
B0	2.77±0.10	W	8.00±0.10
B1	2.15±0.10	E	1.75±0.10
K0	1.22±0.10	F	3.50±0.05
D0	1.50±0.10	T	2.00±0.10
D1	1.00±0.10		

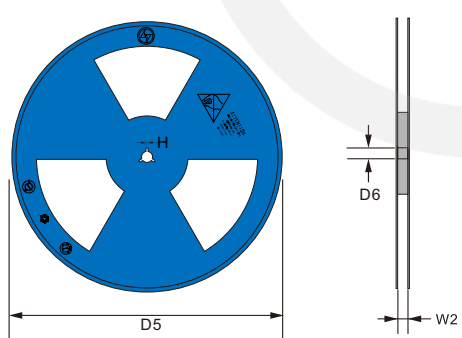
Reel Dimensions

Unit : mm

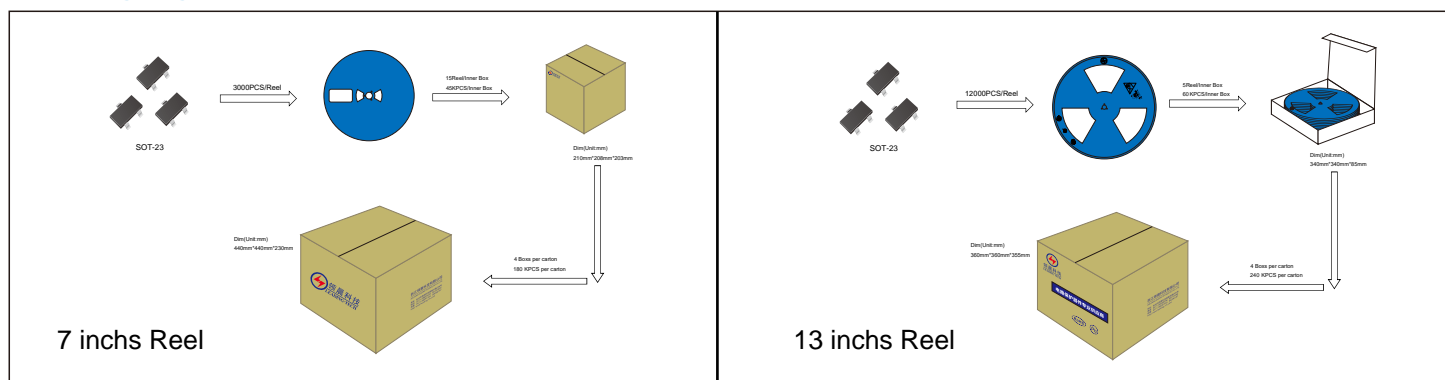
7" Reel 	D2	Φ178.0±2.0
	D3	Φ50
	D4	13.0±0.5
	W1	12±0.5
	Quantity: 3000PCS	

Reel Dimensions

Unit : mm

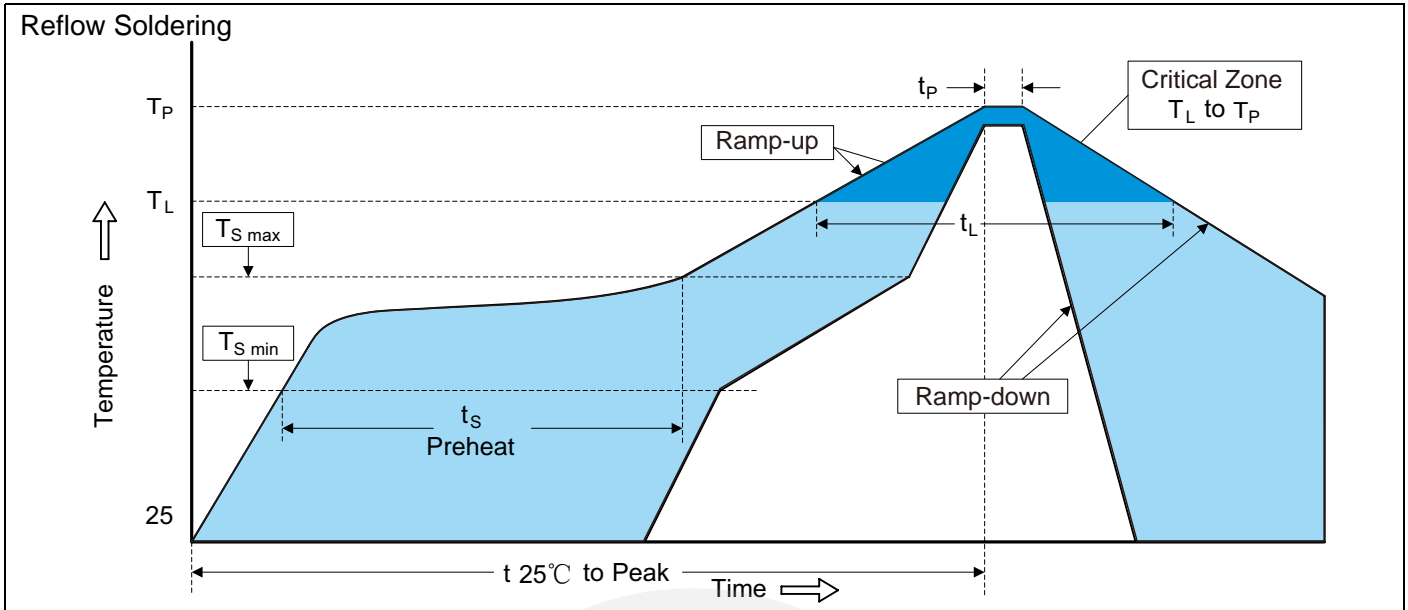
13" Reel 	D5	Φ330.0±2.0
	D6	Φ13.5±0.5
	H	2.5±1.0
	W2	12±2.0
	Quantity: 12000PCS	

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}) -Temperature Max (T _{S max}) -Time (min to max) (t _S)	150°C 200°C 60-180 seconds
T _{S max} to T _L -Ramp-up Rate	3°C/second max.
Time maintained above: -Temperature (T _L) -Time (t _L)	217°C 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	2024.03.01	2024.03.01	3.0	New file	/	Ding	
02	2025.06.17	2025.06.17	3.1	Update packaging information	/	Ding	
03	2026.03.04	2026.03.04	3.2	Package outline E1(max)=2.6mm	/	Ding	