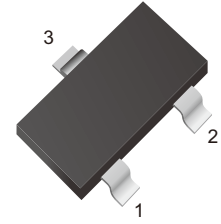


Switching Diodes

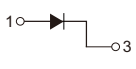
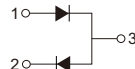
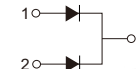
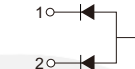
Features

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

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

LTS70	LTS70-04	LTS70-05	LTS70-06
			
MARKING:7A	MARKING:7SE	MARKING:7CC	MARKING:7CA

Ordering Information

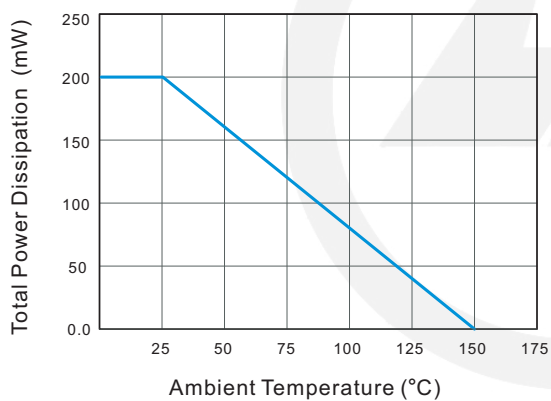
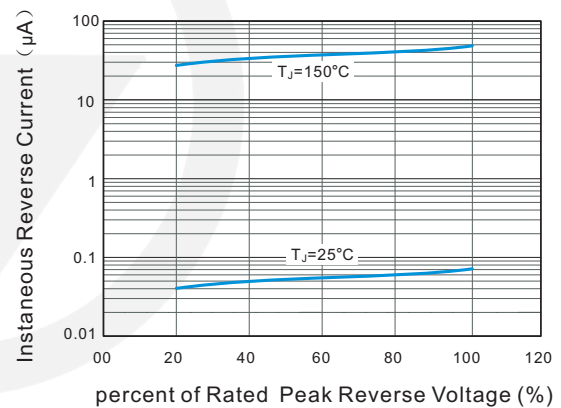
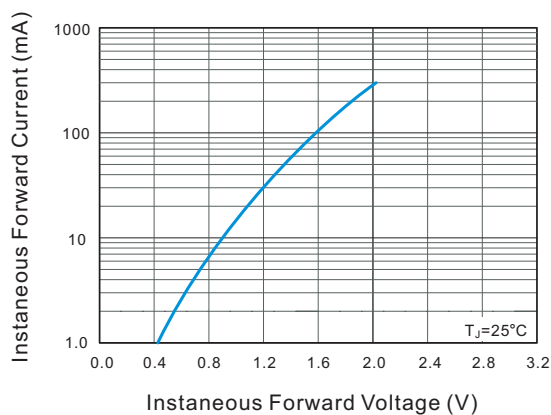
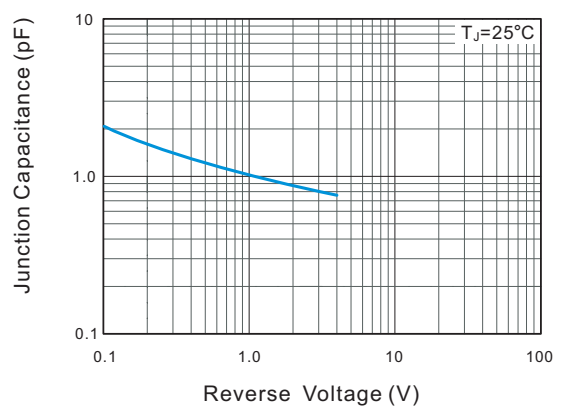
Part Number	Shipping	Reel
LTS70-04-05-06-TR3	3000PCS Tape&Reel	7 inches
LTS70-04-05-06-TR12	12000PCS Tape&Reel	13 inches

Maximum Ratings (Ta=25 unless otherwise noted)

Parameter	Symbol	LTS70	Units
DC Voltage	V_R	70	V
Average Rectified Forward Current	I_F	70	mA
Non-Repetitive Peak Forward Surge Current @ t = 8.3ms	I_{FSM}	100	mA
Power Dissipation	P_D	200	mW
Typical Thermal Resistance (1)	R_{thJA}	500	°C/W
Junction Temperature	T_j	125	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C

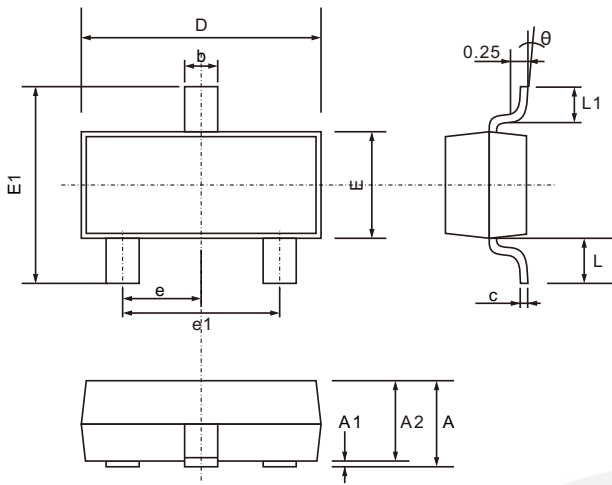
Electrical Characteristics ($T_a=25$ unless otherwise Specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=10\mu A$	70		V
Forward voltage	V_F	$I_F=1mA$		0.41	V
		$I_F=15mA$		1	V
Reverse current	I_R	$V_R=50V$		100	nA
Capacitance between terminals	C_T	$V_R=0V, f=1MHz$		2	pF
Reverse recovery time	t_{rr}	$I_F=I_R=10mA,$ $I_{rr}=0.1XI_R, R_L=100\Omega$		5	ns

Characteristics Curves
Fig.1 Power Derating Curve

Fig.2 Typical Reverse Characteristics

Fig.3 Typical Instantaneous Forward Characteristics

Fig.4 Typical Junction Capacitance


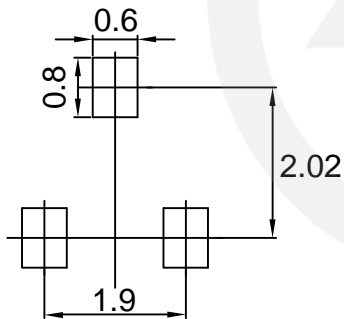
SOT-23 Package Outline

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°

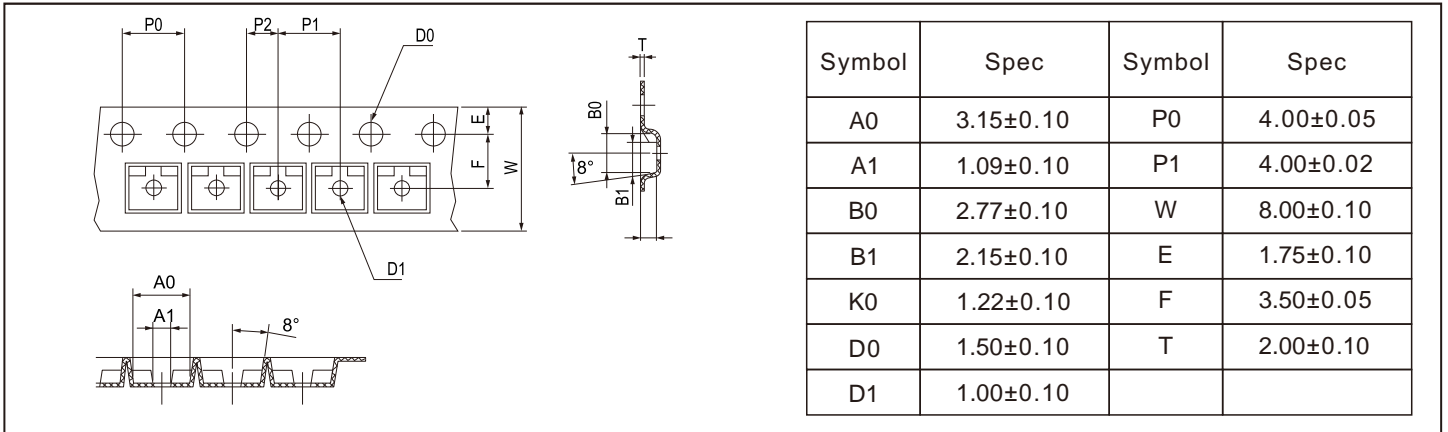
SOT-23 Suggested Pad Layout



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

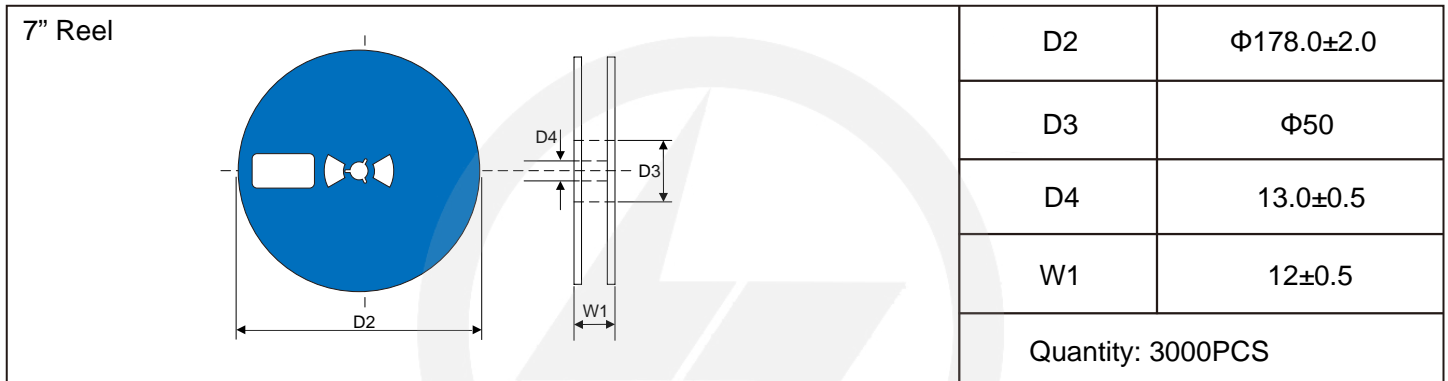
Carrier Tape Dimensions

Unit : mm



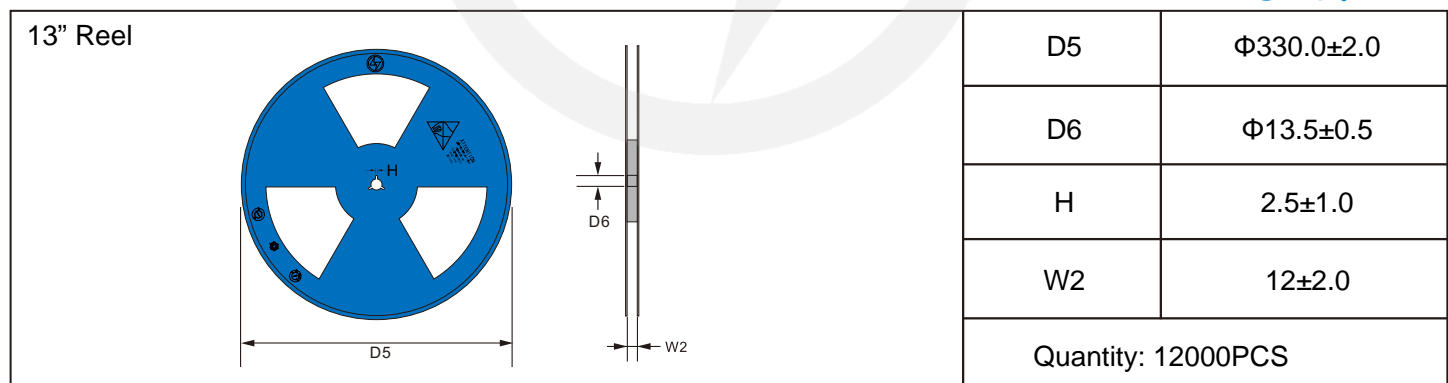
Reel Dimensions

Unit : mm

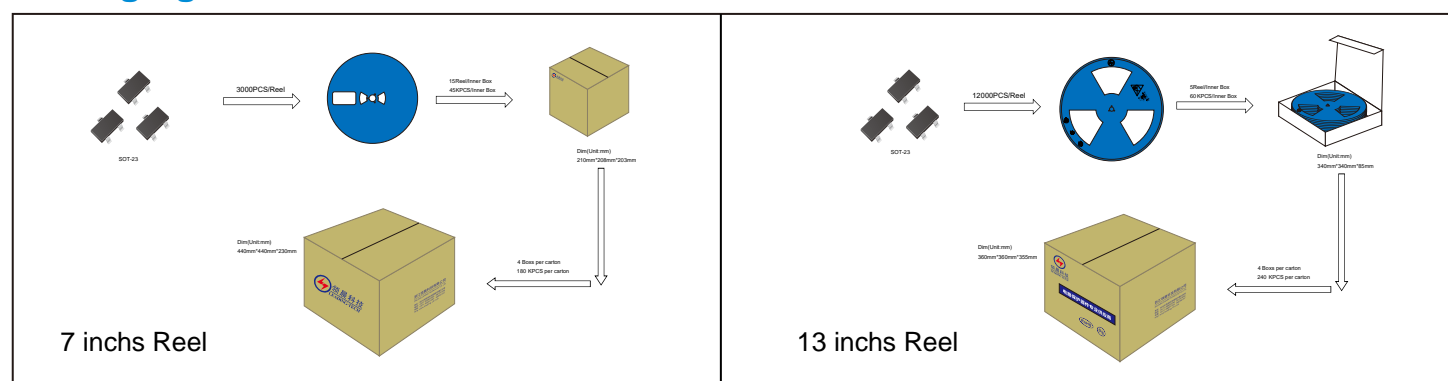


Reel Dimensions

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	2024.09.26	2024.09.26	3.0	New file	/	Ding	
02	2025.06.11	2025.06.11	3.1	Update packaging information	/	Ding	
03	2026.03.04	2026.03.04	3.2	Package outline E1(max)=2.6mm	/	Ding	