

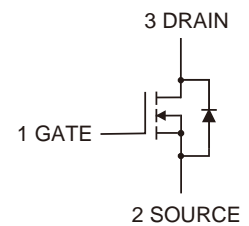
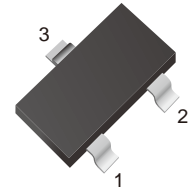
N-Channel Mosfet

Features

- $V_{DS} = 30V$, $I_D = 4A$
- $R_{DS(ON)} < 50m\Omega$ ($V_{GS} = 2.5V$)
- $R_{DS(ON)} < 40m\Omega$ ($V_{GS} = 4.5V$)
- $R_{DS(ON)} < 35m\Omega$ ($V_{GS} = 10V$)
- High Power and Current Handling Capability
- Lead Free Product is Acquired
- Surface Mount Package
- Lead free in comply with EU RoHS 2011/65/EU directives

Machanical Data

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



Ordering Information

Part Number	Marking	Shipping	Reel
LTM3400NR-TR3	ROC	3000PCS Tape&Reel	7 inches
LTM3400NR-TR12	ROC	12000PCS Tape&Reel	13 inches

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

Symbol	Parameter	Value	Units
V_{DS}	Drain-source Voltage	30	V
V_{GS}	Gate-source Voltage	± 12	V
I_D	Continuous Drain Current	4	A
I_{DM}	Pulsed Drain Current (note 1)	30	A
PD	Power Dissipation	400	mW
T_J, T_{STG}	Operating And Storage Temperature Range	-55 to 150	$^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	313	$^\circ\text{C/W}$

Electrical Characteristics (Ta = 25 °C)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
$V_{(BR)DSS}$	Drain-source Breakdown Voltage	$V_{GS}=0V, I_D=250\mu A$	30	33		V
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=30V, V_{GS}=0V$			1	μA
I_{GSS}	Gate-body Leakage Current	$V_{DS}=0V, V_{GS}=\pm 12V$			± 100	nA
$V_{GS(th)}$	Gate-Threshold Voltage (note 2)	$V_{DS}=V_{GS}, I_D=250\mu A$	0.7	0.9	1.4	V
$R_{DS(on)}$	Drain-source On- Resistance (note 2)	$V_{GS}=10V, I_D=2.9A$ $V_{GS}=4.5V, I_D=2.9A$ $V_{GS}=2.5V, I_D=4A$		28 31 45	35 40 50	m Ω
g_{FS}	Forward Transconductance	$V_{DS}=5V, I_D=4.5A$	8			S

Dynamic Characteristics

C_{iss}	Input Capacitance	$V_{DS}=15V$ $V_{GS}=0V$ $f=1MHz$		825	1155	pF
C_{oss}	Output Capacitance			108	120	
C_{rss}	Reverse Transfer Capacitance			84	100	
Q_g	Total Gate Charge	$V_{DS}=15V, I_D=4A$ $V_{GS}=4.5V$		9.5		nC
Q_{gS}	Gate-Source Charge			1.5		
Q_{gd}	Gate-Drain("Miller") Charge			3		

Switching Characteristics

$t_{d(on)}$	Turn-on Delay Time	$V_{DD}=15V, I_D=2.9A,$ $V_{GS}=10V, R_{GEN}=3\Omega$		3.3		ns
t_r	Turn-on Rise Time			4.8		
$t_{d(off)}$	Turn-off Delay Time			26		
t_f	Turn-off Fall Time			4		

Drain-Source Diode Characteristics and Maximum Ratings

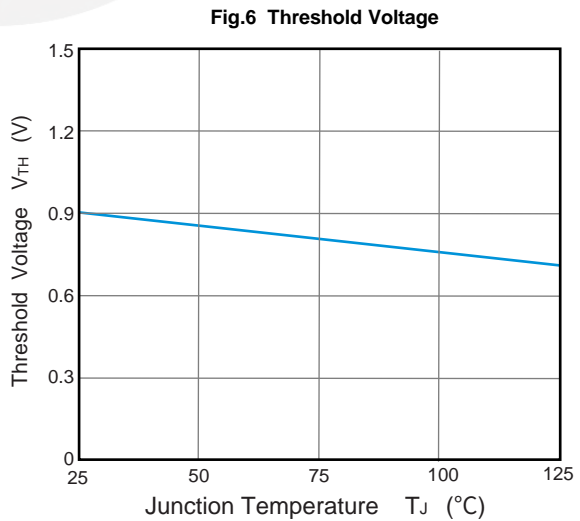
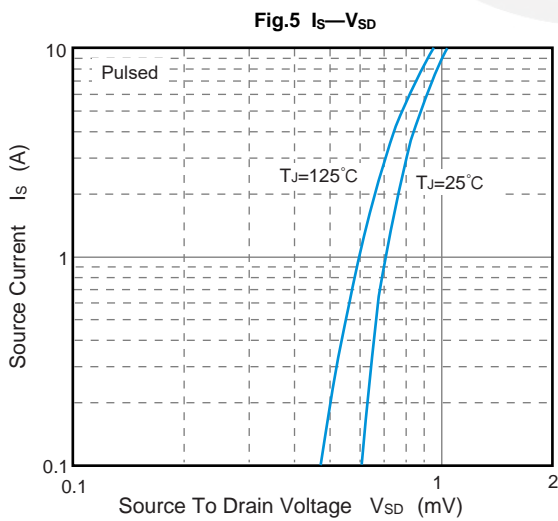
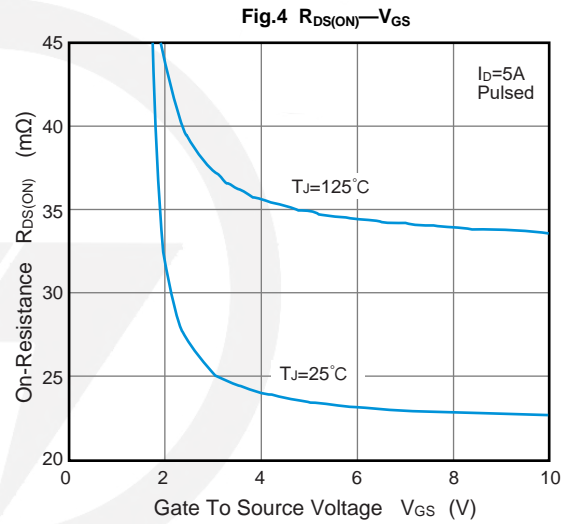
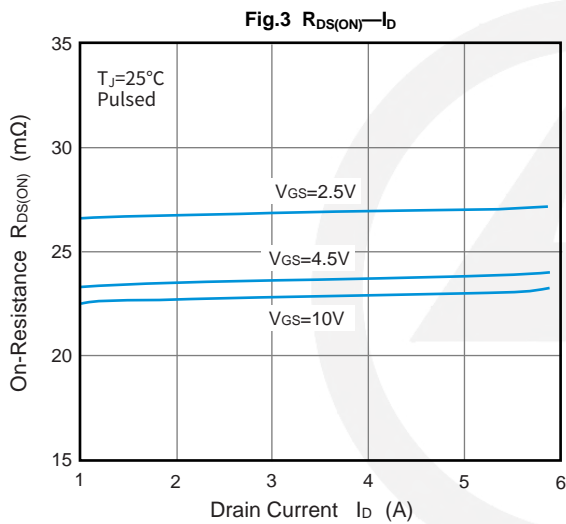
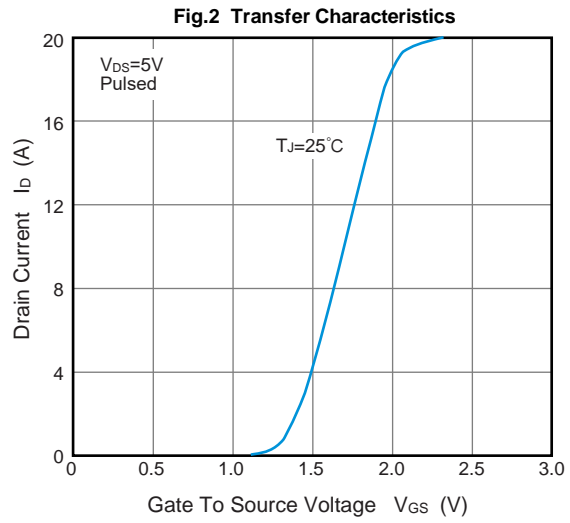
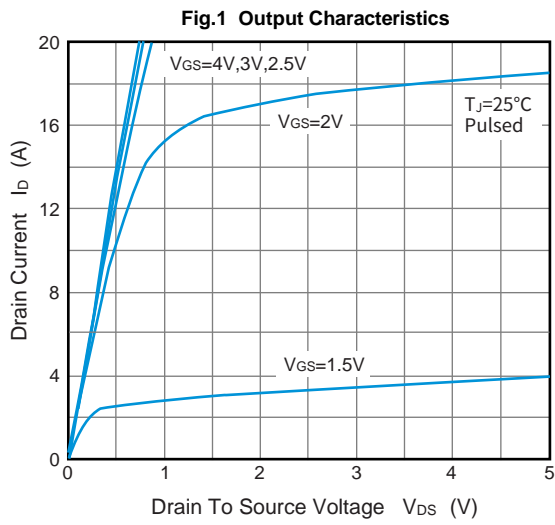
I_S	Maximum Continuous Drain to Source Diode Forward Current			4	A	
I_{SM}	Maximum Pulsed Drain to Source Diode Forward Current			30	A	
V_{SD}	Drain to Source Diode Forward Voltage	$V_{GS}=0V, I_S=1A$		0.75	1.2	V

Notes:

1. Repetitive Rating: Pulse Width Limited by Maximum Junction Temperature
2. Pulse Test : Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$.

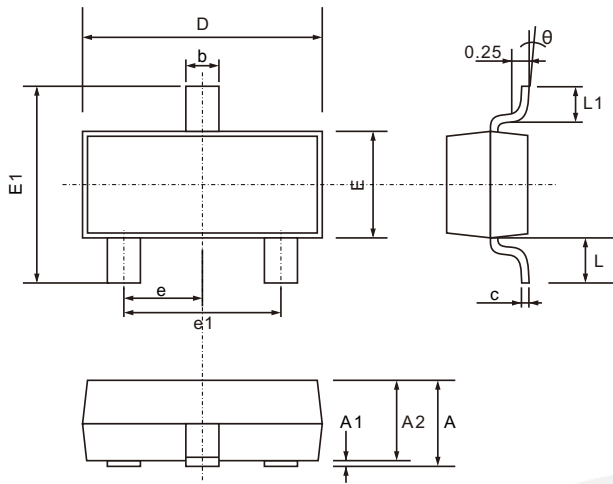


Characteristics Curves



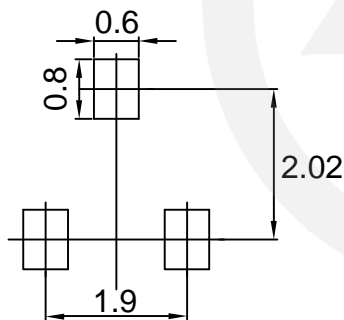
SOT-23 Package Outline

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°

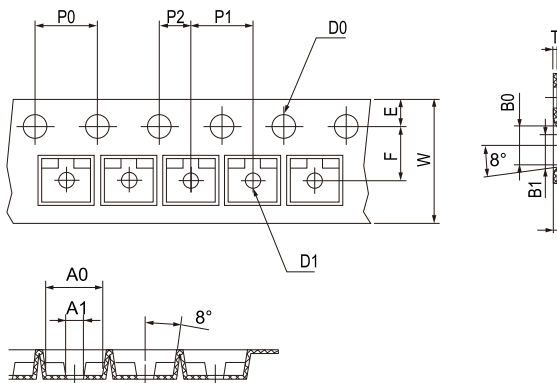
SOT-23 Suggested Pad Layout



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

Carrier Tape Dimensions

Unit : mm



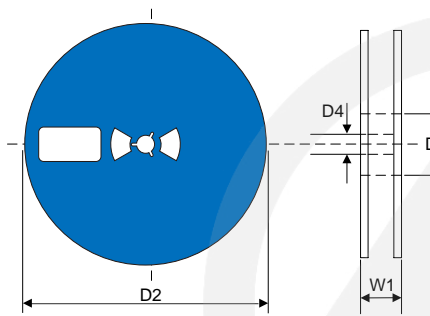
The diagram shows a top view and a side view of the carrier tape. The top view labels dimensions P0, P2, P1, D0, D1, E, F, and W. The side view labels dimensions B0, B1, and T. A detail view shows a cross-section of the tape with dimensions A0, A1, and an 8-degree angle.

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



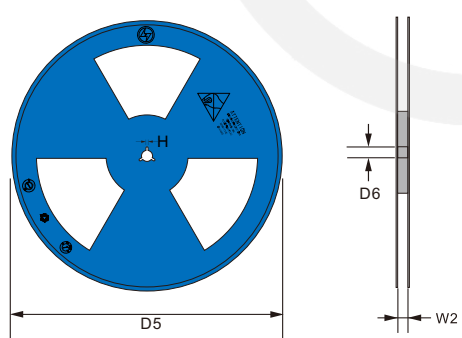
The diagram shows a top view of a 7-inch reel with diameter D2 and a side view with dimensions D4, D3, and W1.

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

Reel Dimensions

Unit : mm

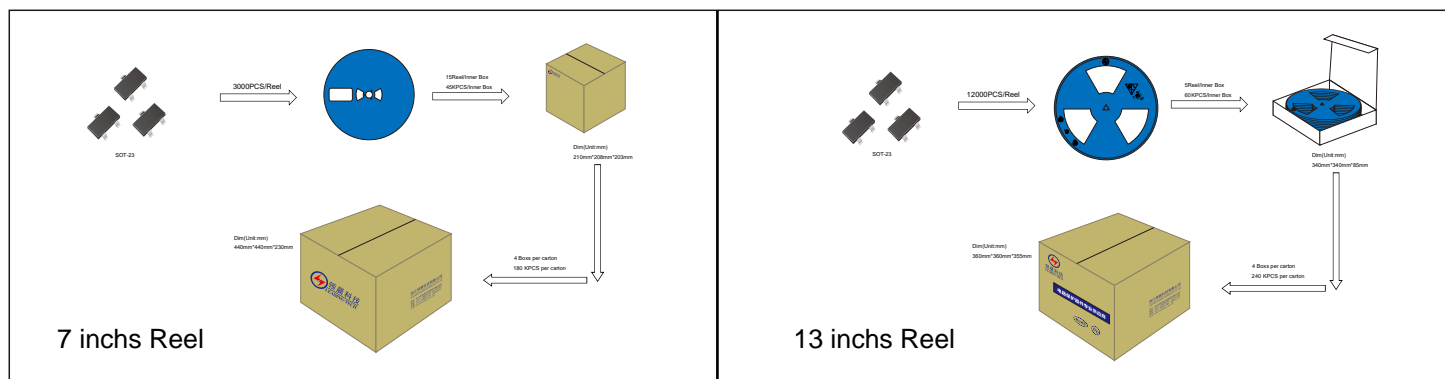
13" Reel



The diagram shows a top view of a 13-inch reel with diameter D5 and a side view with dimensions D6, H, and W2.

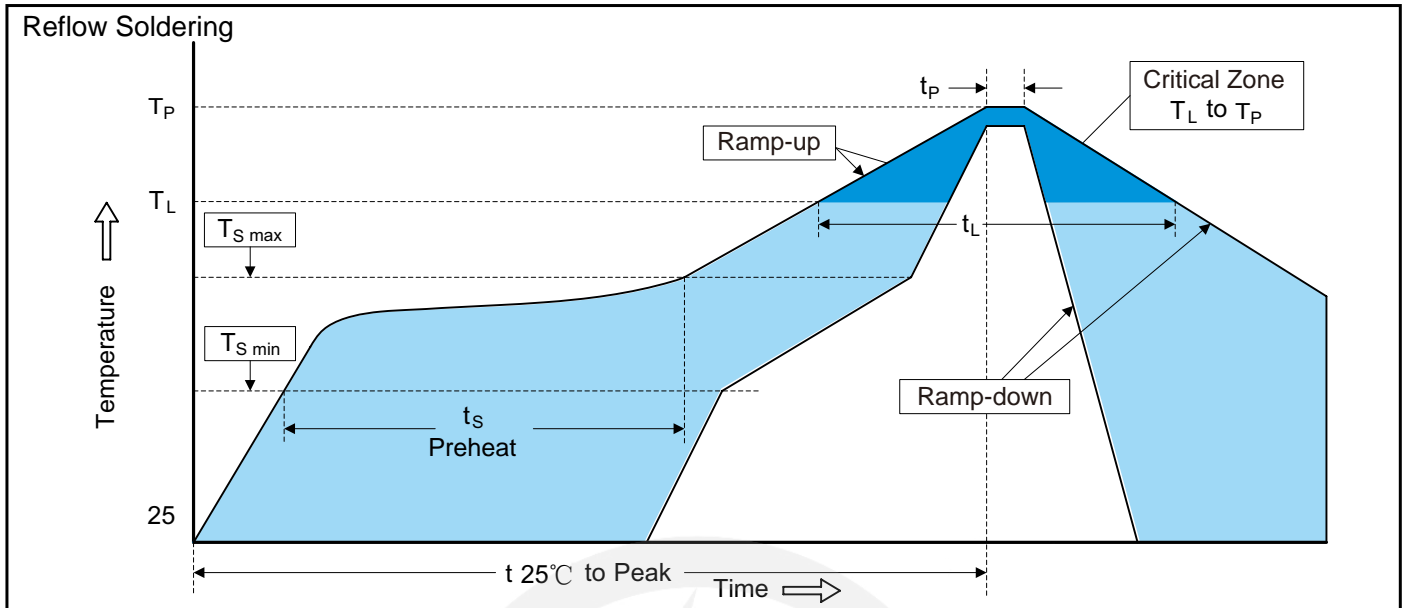
D5	Φ330.0±2.0
D6	Φ13.5±0.5
H	2.5±1.0
W2	12±2.0
Quantity: 12000PCS	

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})	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	2025.09.20	2025.09.20	3.0	New file	/	Ding	