



SOT-23-3L Plastic-Encapsulate MOSFETS

LJ3401

P-Channel Enhancement Mode Field Effect Transistor

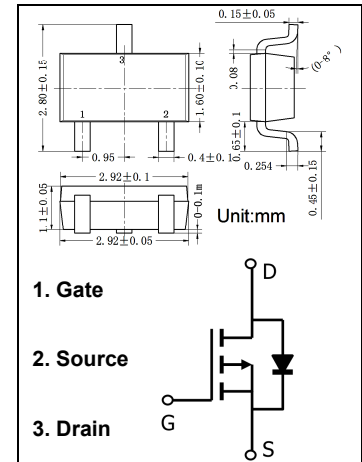
Features

- High dense cell design for extremely low $R_{DS(ON)}$
- Exceptional on-resistance and maximum DC current capability
- Fully Characterized Capacitance and Avalanche Voltage and Current

Applications

- Load Switch for Portable Devices
- DC/DC Converter

Marking: 3401



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

Symbol	Parameter	Value	Unit
V_{DS}	Drain-Source voltage	-30	V
V_{GS}	Gate-Source voltage	± 12	
I_D	Continuous Drain Current	-4.2	A
P_D	Power Dissipation	450	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient ($t < 5s$)	313	$^{\circ}\text{C/W}$
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	-55~+150	$^{\circ}\text{C}$

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

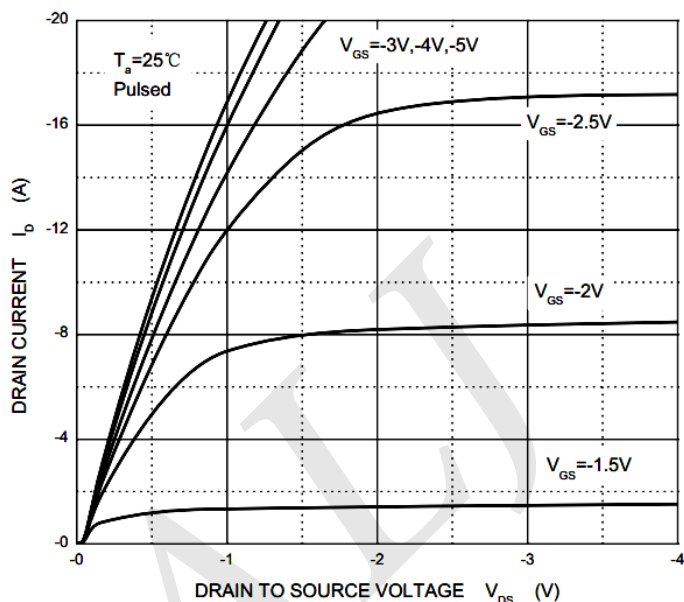
Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Off characteristics						
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0V, I _D = -250μA	-30			V
I _{GSS}	Gate-body Leakage current	V _{DS} = 0V, V _{GS} = ±12V			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = -24V, V _{GS} = 0V			-1	μA
On characteristics						
R _{DS(on)}	Drain-Source On-Resistance ¹⁾	V _{GS} = -10V, I _D = -4.2A			60	mΩ
		V _{GS} = -4.5V, I _D = -4A			70	mΩ
		V _{GS} = -2.5V, I _D = -1A			85	mΩ
g _{fs}	Forward Trans conductance ¹⁾	V _{DS} = -5V, I _D = -5A	7			S
V _{GS(th)}	Gate-Threshold Voltage	V _{DS} = V _{GS} , I _D = -250μA	-0.7		-1.3	V
Dynamic characteristics ²⁾						
C _{iss}	Input Capacitance	V _{DS} = -15V, V _{GS} = 0V, f = 1MHz		1050		pF
C _{oss}	Output Capacitance			127		
C _{rss}	Reverse Transfer Capacitance			85		
Switching characteristics ²⁾						
t _{d(on)}	Turn-On Delay Time	V _{GS} = -10V, V _{DS} = -15V, R _L = 3.6Ω, R _{GEN} = 6Ω			6.5	ns
t _r	Rise Time				3.5	
t _{d(off)}	Turn-Off Delay Time				40	
t _f	Fall Time				13	
Drain-source diode characteristics and maximum ratings						
V _{SD}	Diode forward voltage ¹⁾	I _S = -1A, V _{GS} = 0V			-1	V

Notes:

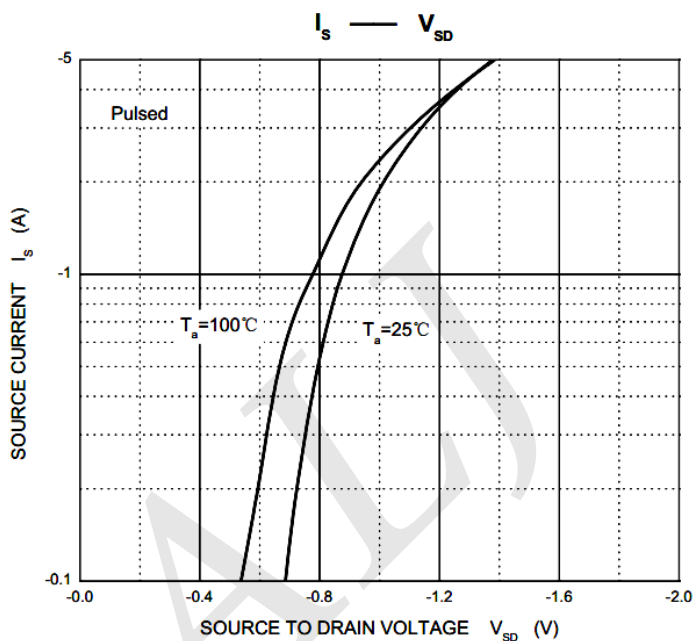
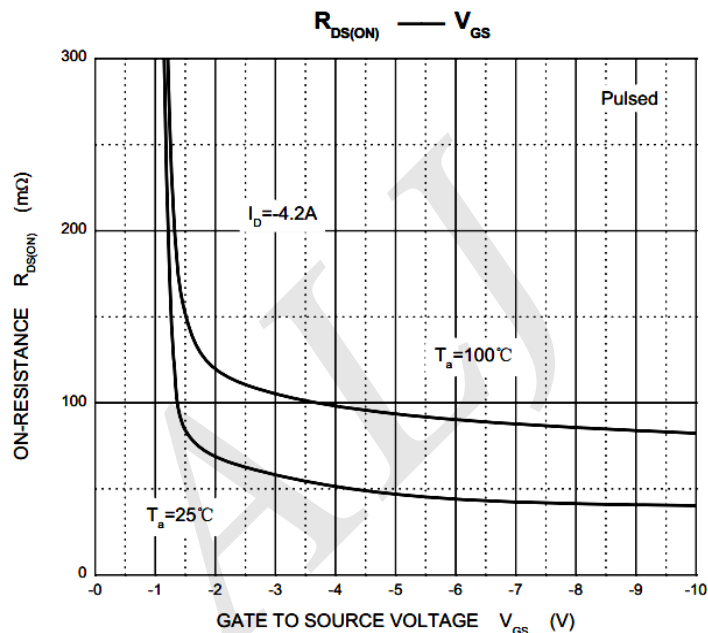
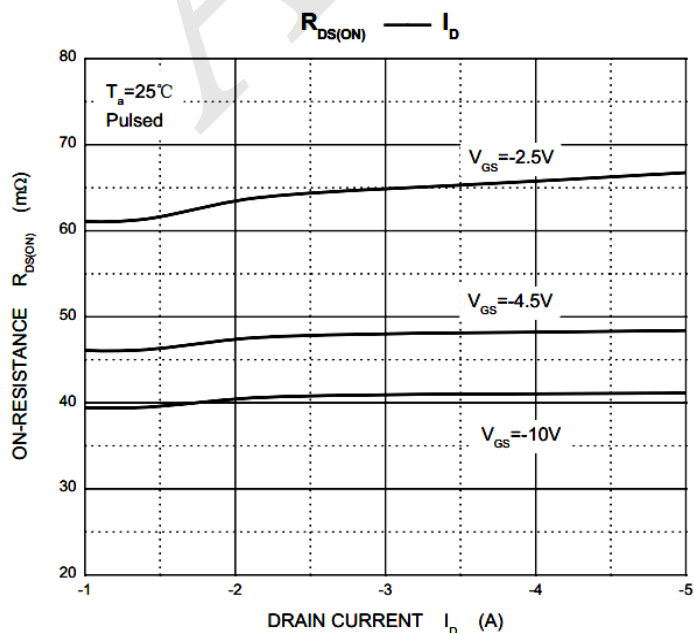
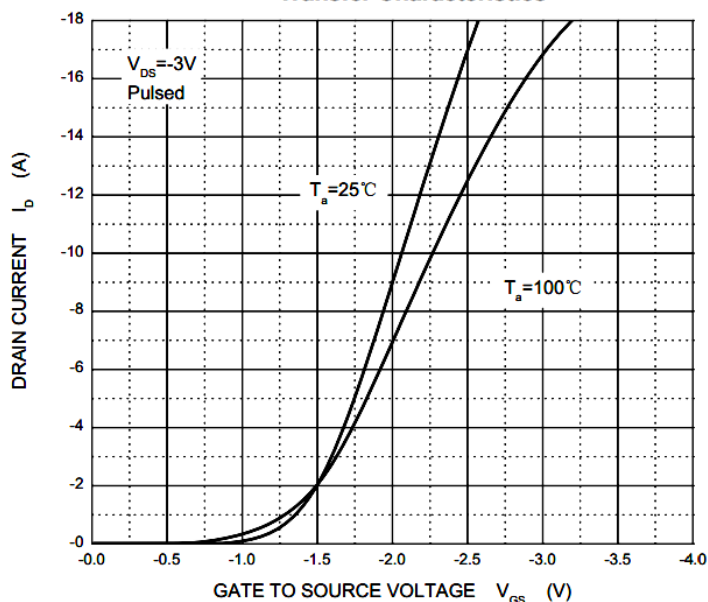
1. Pulse Test: Pulse width ≤ 300μs, duty cycle ≤ 2%.
2. These parameters have no way to verify.

Typical Characteristics

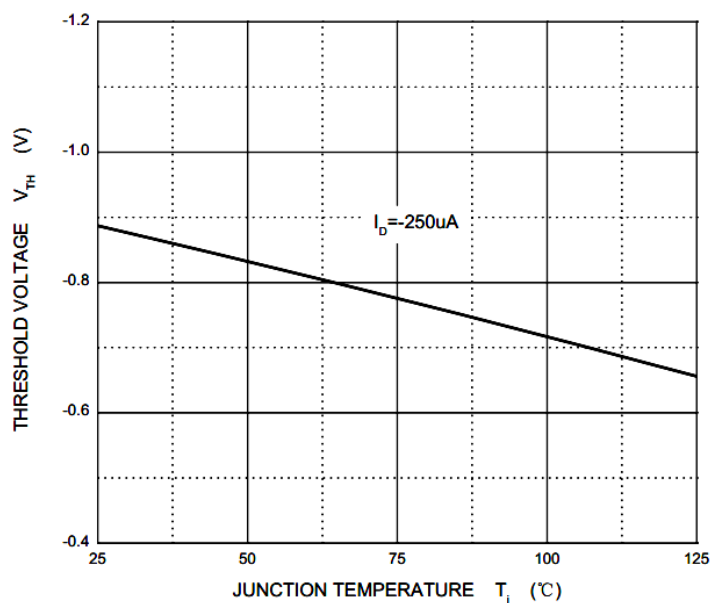
Output Characteristics



Transfer Characteristics

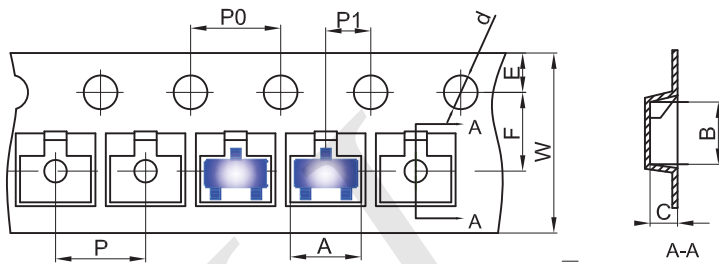


Threshold Voltage



SOT-23-3L Tape and Reel

SOT-23-3L Embossed Carrier Tape

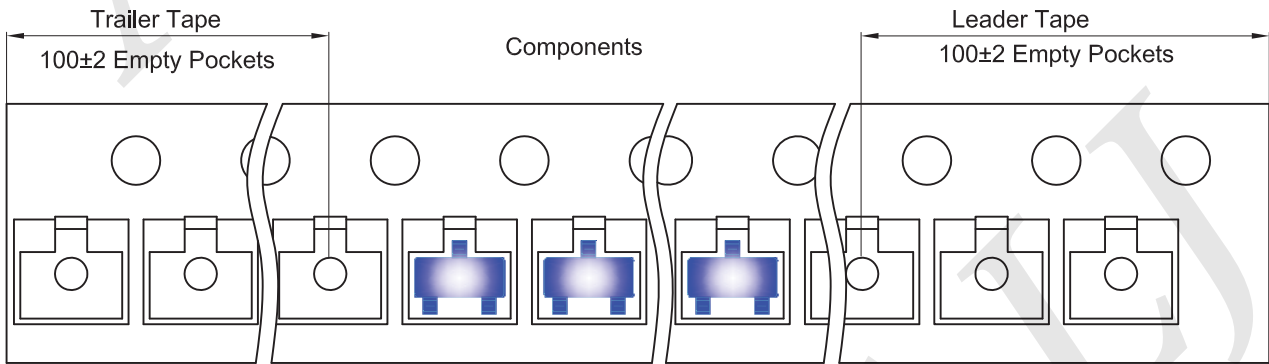


Packaging Description:

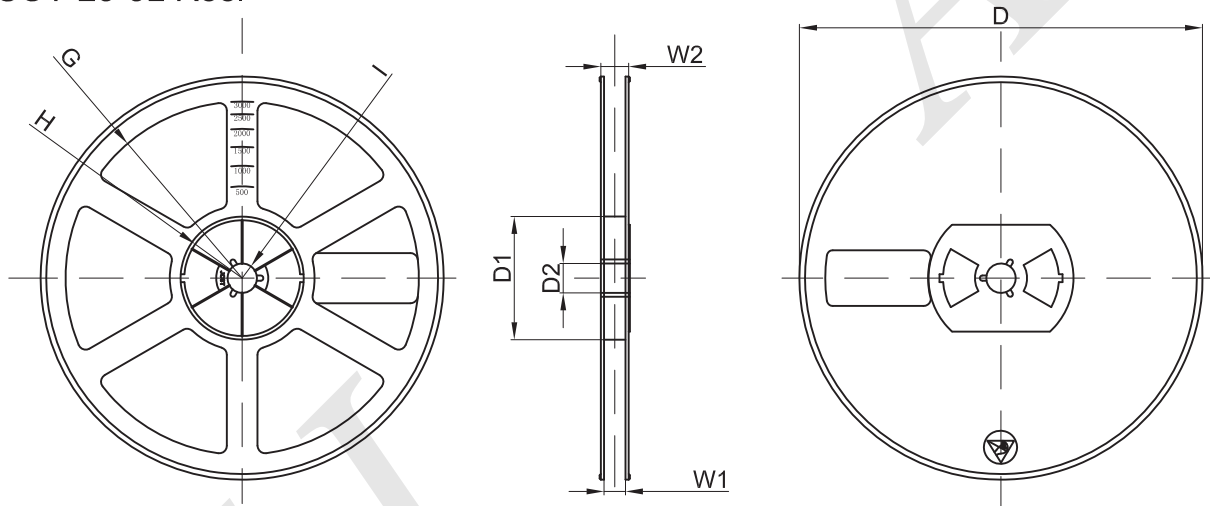
SOT-23-3L parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 18.0cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23-3L	3.18	3.28	1.32	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-23-3L Tape Leader and Trailer



SOT-23-3L Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø180.00	60.00	13.00	R78.00	R25.60	R6.50	9.50	13.10

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	30,000 pcs	203×203×195	120,000 pcs	438×438×220	