

**Product Summary**

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	$I_D$
-30V	47mΩ@-10V	-5A
	68mΩ@-4.5V	

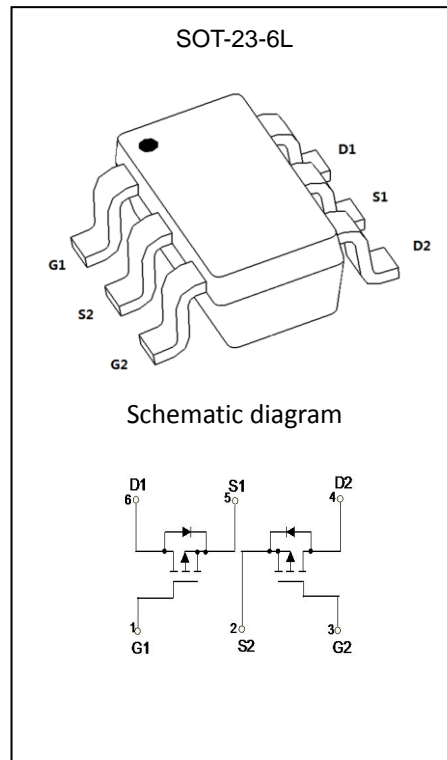
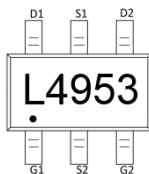
**Feature**

- Low on-resistance
- Low drive current
- Low  $R_{DS(on)}$  Provides Higher Efficiency and Extends Battery Life
- Fast switching speed
- High performance trench technology

**Application**

- DC/DC Converter
- Load Switch for Portable Devices
- Battery Switch

**MARKING:**



**ABSOLUTE MAXIMUM RATINGS ( $T_a=25^{\circ}C$  unless otherwise noted)**

Parameter	Symbol	Value	Unit
Drain-Source Voltage	$V_{DS}$	-30	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Continuous Drain Current( $t \leq 10s$ )	$I_D$	-5	A
Power Dissipation( $t \leq 10s$ )	$P_D$	0.45	W
Thermal Resistance from Junction to Ambient( $t \leq 10s$ )	$R_{\theta JA}$	277	$^{\circ}C/W$
Junction Temperature	$T_J$	150	$^{\circ}C$
Storage Temperature	$T_{STG}$	-55~ +150	$^{\circ}C$

## MOSFET ELECTRICAL CHARACTERISTICS( $T_a=25^{\circ}\text{C}$ unless otherwise noted)

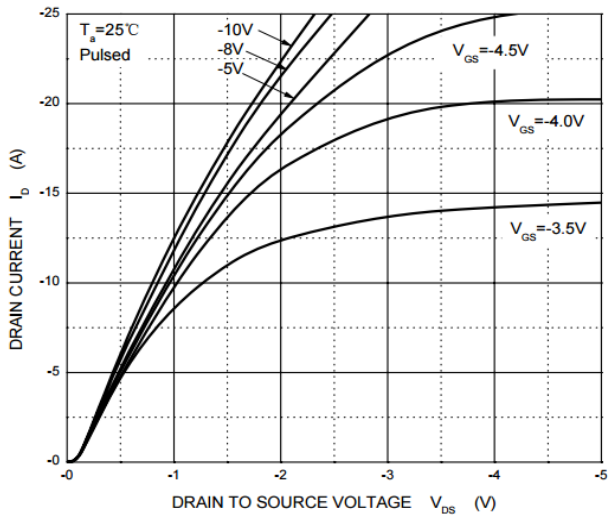
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
<b>Static Characteristics</b>						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	-30			V
Zero gate voltage drain current	$I_{DSS}$	$V_{DS} = -30V, V_{GS} = 0V$			-1	$\mu A$
Gate-body leakage current	$I_{GSS}$	$V_{GS} = \pm 20V, V_{DS} = 0V$			$\pm 0.1$	$\mu A$
Gate threshold voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	-1.0	-1.5	-2	V
Drain-source on-resistance <sup>a</sup>	$R_{DS(on)}$	$V_{GS} = -10V, I_D = -4.9A$		47	60	m $\Omega$
		$V_{GS} = -4.5V, I_D = -3.7A$		68	90	
Forward transconductance <sup>a</sup>	$g_{FS}$	$V_{DS} = -10V, I_D = 4.9A$	6			S
Diode forward voltage <sup>a</sup>	$V_{SD}$	$I_S = -1.7A, V_{GS} = 0V$			-1.2	V
<b>Dynamic characteristics<sup>b</sup></b>						
Total gate charge	$Q_g$	$V_{DS} = -15V, V_{GS} = -10V, I_D = -4.9A$			25	nC
Gate-source charge	$Q_{gs}$			4		
Gate-drain charge	$Q_{gd}$			2		
<b>Switching Characteristics</b>						
Turn-on delay time	$t_{d(on)}$	$V_{DD} = -15V, R_L = 15\Omega, I_D = -1A,$ $V_{GNE} = -10V, R_G = 6\Omega$			15	ns
Turn-on rise time	$t_r$				20	
Turn-off delay time	$t_{d(off)}$				80	
Turn-off fall time	$t_f$				40	

Notes:

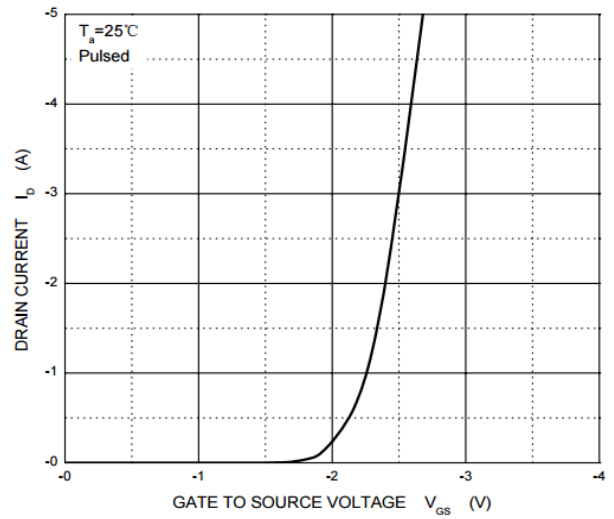
1. Pulse test:  $PW \leq 300\mu s$  duty cycle  $\leq 2\%$ .
2. Guaranteed by design, not subject to production testing.

**Typical Electrical and Thermal Characteristics**

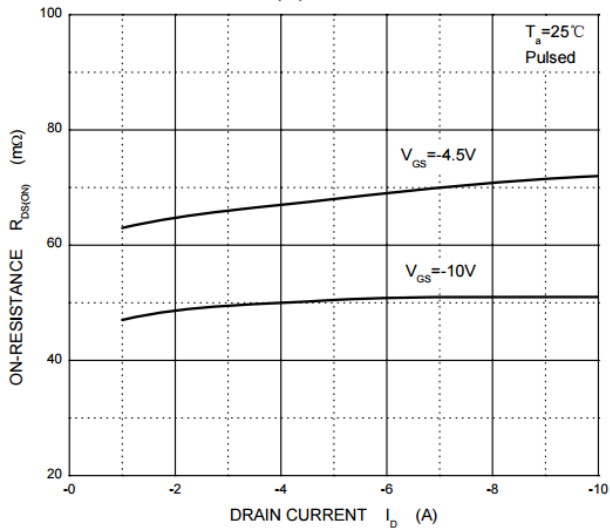
**Output Characteristics**



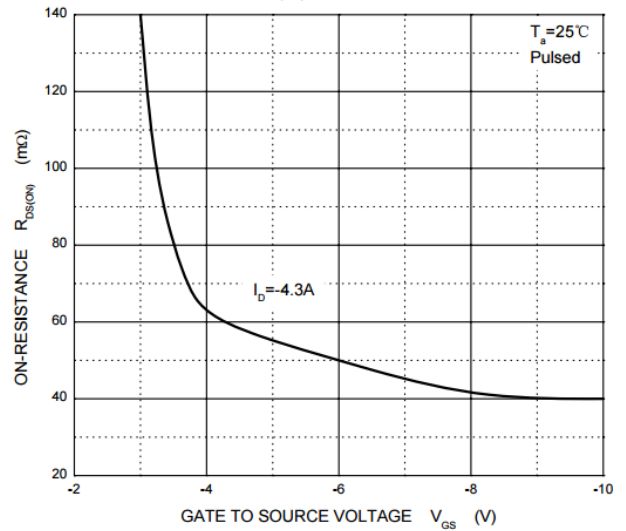
**Transfer Characteristics**



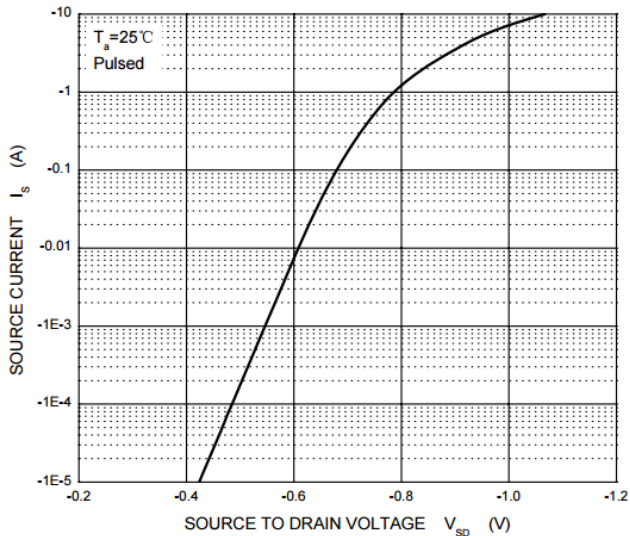
$R_{DS(ON)}$  —  $I_D$



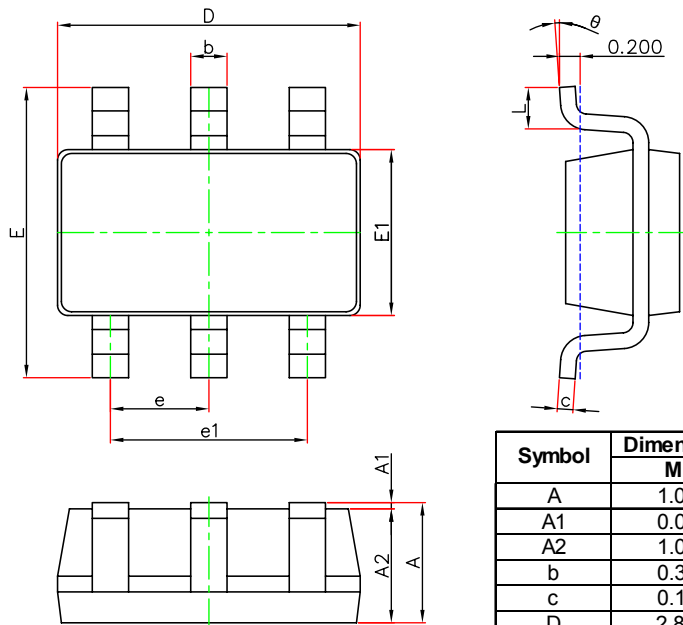
$R_{DS(ON)}$  —  $V_{GS}$



$I_S$  —  $V_{SD}$



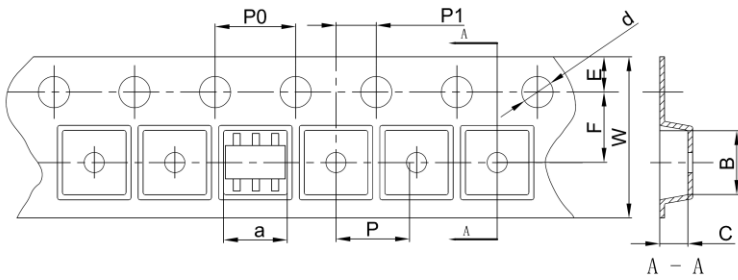
## SOT-23-6L Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

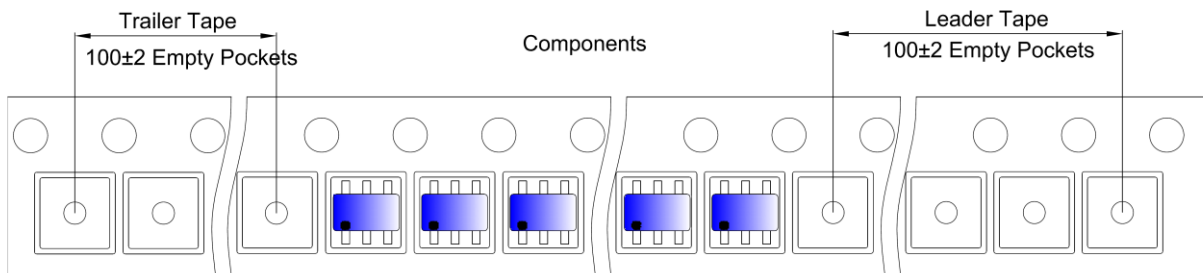
## SOT-23-6L Tape and Reel

### SOT-23-6L Embossed Carrier Tape

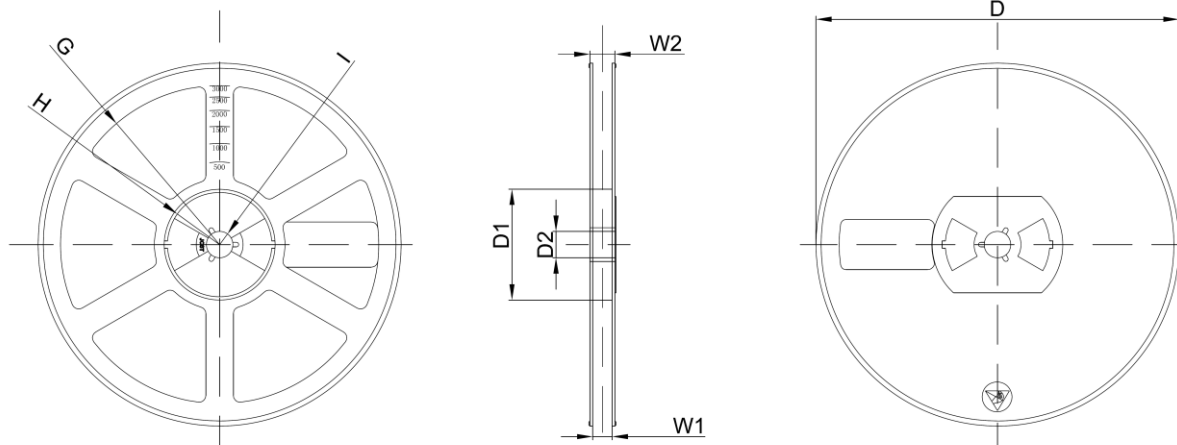


Dimensions are in millimeter										
Pkg type	a	B	C	d	E	F	P0	P	P1	W
SOT-23-6L	3.17	3.23	1.37	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

### SOT-23-6L Tape Leader and Trailer



### SOT-23-6L 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	

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)