



Micro Commercial Components



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# SIL2623

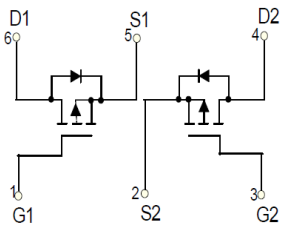
## Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking Code: 2623

## Maximum Ratings @ 25°C Unless Otherwise Specified

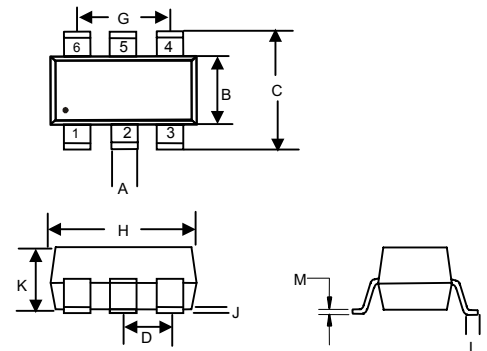
Symbol	Parameter	Rating	Unit
$V_{DS}$	Drain-source Voltage	-30	V
$I_D$	Drain Current-Continuous	-3.0	A
$I_{DM}$	Pulsed Drain Currents	-20	A
$V_{GS}$	Gate-source Voltage	$\pm 20$	V
$P_D$	Power Dissipation	0.35	W
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	357	$^{\circ}C/W$
$T_J$	Operating Junction Temperature	-55 to +150	$^{\circ}C$
$T_{STG}$	Storage Temperature	-55 to +150	$^{\circ}C$

## Equivalent Circuit



## Dual P-Channel Enhancement Mode Field Effect Transistor

# SOT23-6L



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.012	.020	0.30	0.50	
B	.051	.070	1.30	1.80	
C	.087	.126	2.20	3.20	
D	.037		0.95BSC		
G	.074		1.90BSC		
H	.106	.122	2.70	3.10	
J	.002	.006	0.05	0.15	
K	.035	.051	0.90	1.30	
L	.012	.024	0.30	0.60	
M	.003	.008	0.08	0.22	

**MOSFET ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)**

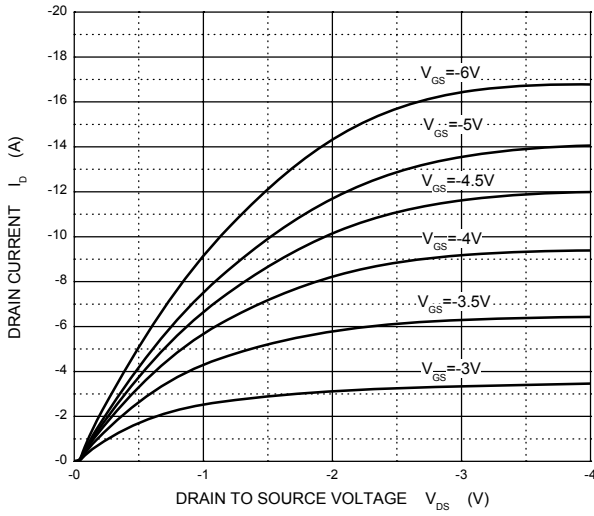
Parameter	Symbol	Test Condition	Min	Typ	Max	Units
<b>Static characteristics</b>						
Drain-source breakdown voltage	BV <sub>DSS</sub>	V <sub>GS</sub> = 0V, I <sub>D</sub> = -250μA	-30			V
Zero gate voltage drain current	I <sub>DSS</sub>	V <sub>DS</sub> = -30V, V <sub>GS</sub> = 0V			-1	μA
Gate-source leakage current	I <sub>GSS</sub>	V <sub>GS</sub> = ±20V, V <sub>DS</sub> = 0V			±100	nA
Drain-source on-resistance (note 1)	R <sub>DS(on)</sub>	V <sub>GS</sub> = -10V, I <sub>D</sub> = -3.0A			130	mΩ
		V <sub>GS</sub> = -4.5V, I <sub>D</sub> = -2.0A			180	mΩ
Forward transconductance (note 1)	g <sub>FS</sub>	V <sub>DS</sub> = -5V, I <sub>D</sub> = -2A		2.0		S
Gate threshold voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = -250μA	-1		-3	V
Diode forward voltage (note 1)	V <sub>SD</sub>	I <sub>S</sub> = -1A, V <sub>GS</sub> = 0V			-1.2	V
<b>Dynamic characteristics (note 2)</b>						
Input capacitance	C <sub>iSS</sub>	V <sub>DS</sub> = -25V, V <sub>GS</sub> = 0V, f = 1MHz			240	pF
Output capacitance	C <sub>oSS</sub>			42		pF
Reverse transfer capacitance	C <sub>rSS</sub>			32		pF
<b>Switching Characteristics (note 2)</b>						
Turn-on delay time	t <sub>d(on)</sub>	V <sub>GS</sub> = -10V, V <sub>DD</sub> = -15V, I <sub>D</sub> = -1A, R <sub>D</sub> = 15Ω, R <sub>G</sub> = 3.3Ω		5		ns
Turn-on rise time	t <sub>r</sub>			6		ns
Turn-off delay time	t <sub>d(off)</sub>			15		ns
Turn-off fall time	t <sub>f</sub>			3		ns
Total Gate Charge	Q <sub>g</sub>	V <sub>DS</sub> = -24V, V <sub>GS</sub> = -4.5V, I <sub>D</sub> = -2A			4.5	nC
Gate-Source Charge	Q <sub>gs</sub>			0.5		nC
Gate-Drain Charge	Q <sub>gd</sub>			1.4		nC

**Notes:**

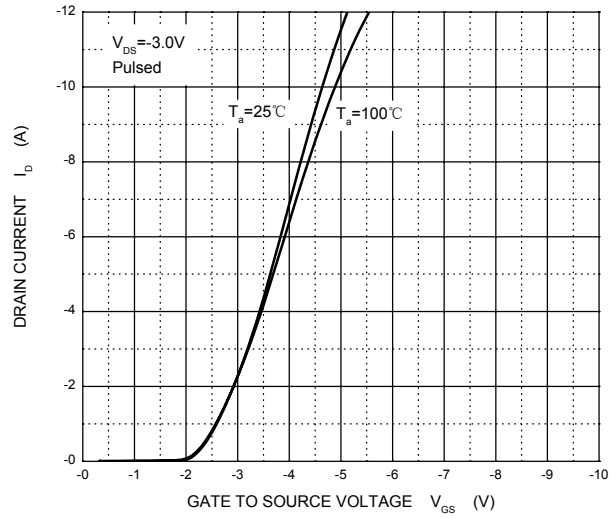
1. Pulse test: Pulse width ≤ 300μs, duty cycle ≤ 2%.
2. These parameters have no way to verify.

## Typical characteristics

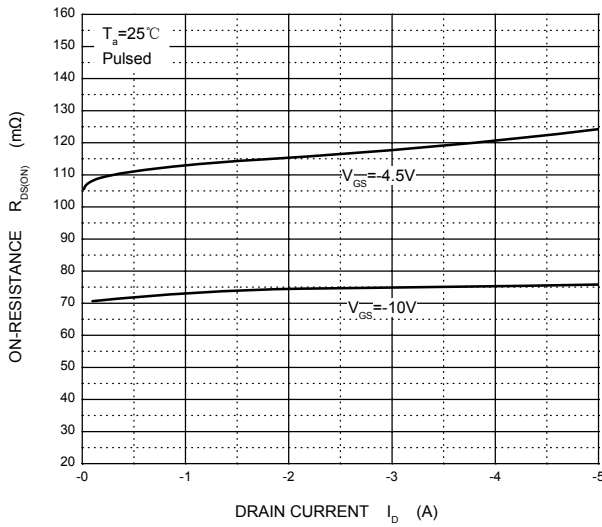
**Output Characteristics**



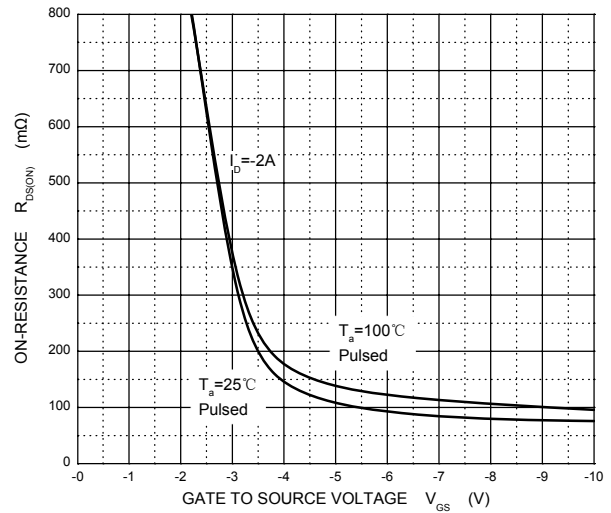
**Transfer Characteristics**



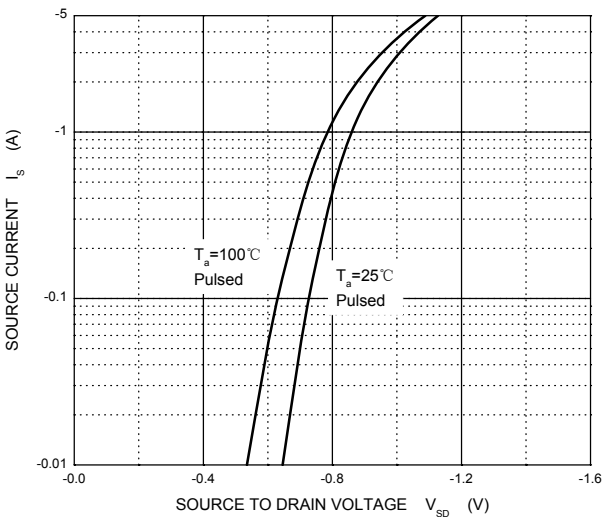
$R_{DS(ON)}$  —  $I_D$



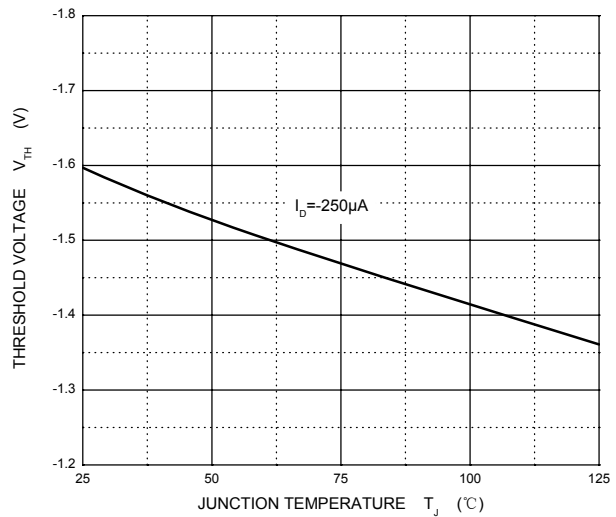
$R_{DS(ON)}$  —  $V_{GS}$



$I_S$  —  $V_{SD}$



**Threshold Voltage**





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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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