



## SIL2623

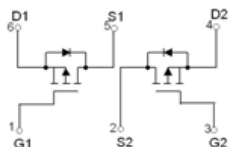
### Features

- 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

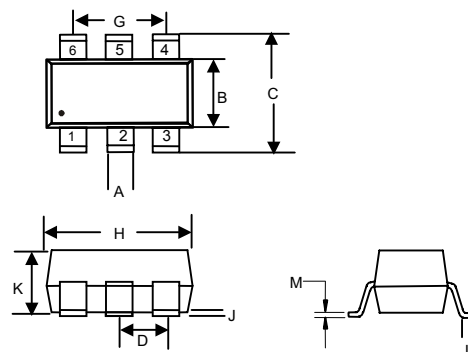
Symbol	Parameter	Rating	Unit
$V_{DS}$	Drain-source Voltage	-30	V
$I_D$	Drain Current-Continuous	-3.0	A
$I_{DM}$	Pulsed Drain Currents	-20	A
$V_{GS}$	Gate-source Voltage	$\pm 20$	V
$P_D$	Power Dissipation	0.35	W
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	357	$^{\circ}\text{C}/\text{W}$
$T_J$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

### Equivalent Circuit



## Dual P-Channel Enhancement Mode Field Effect Transistor

### SOT23-6L



DIMENSIONS					
DIM	INCHES		MM		NOTE
	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)

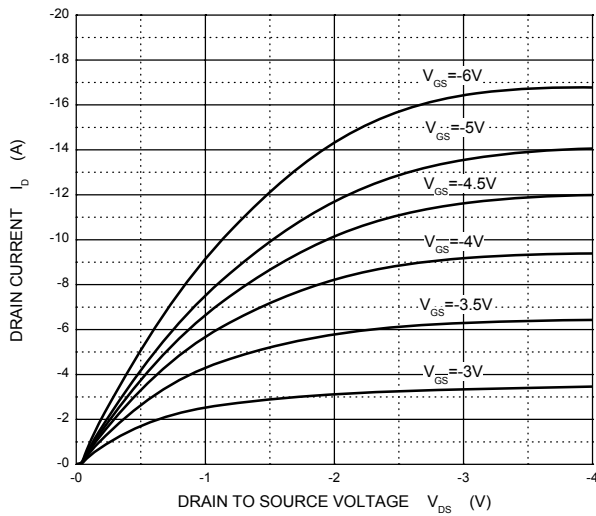
Parameter	Symbol	Test Condition	Min	Typ	Max	Units
Static characteristics						
Drain-source breakdown voltage	BV <sub>DSS</sub>	V <sub>GS</sub> = 0V, I <sub>D</sub> =-250μA	-30			V
Zero gate voltage drain current	I <sub>DSS</sub>	V <sub>DS</sub> =-30V, V <sub>GS</sub> = 0V			-1	μA
Gate-source leakage 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 tranconductance (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
Dynamic characteristics (note 2)						
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
Switching Characteristics (note 2)						
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:

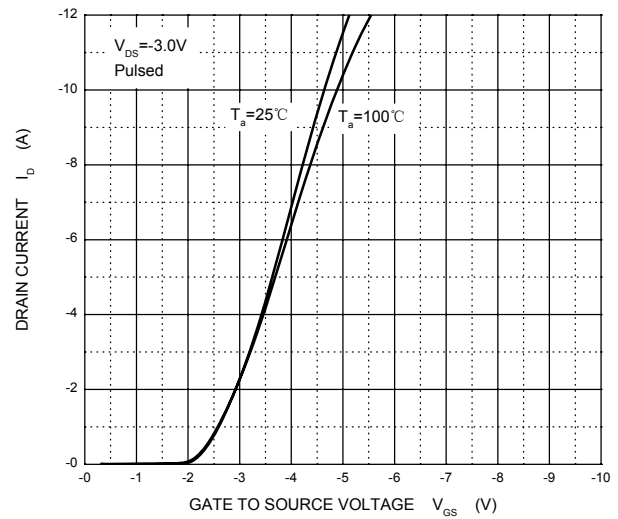
- Pulse test: Pulse width ≤300μs, duty cycle ≤2%.
- These parameters have no way to verify.

## Typical characteristics

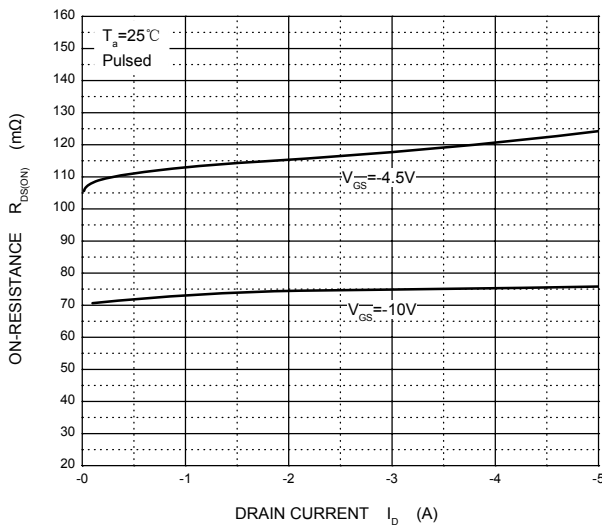
Output Characteristics



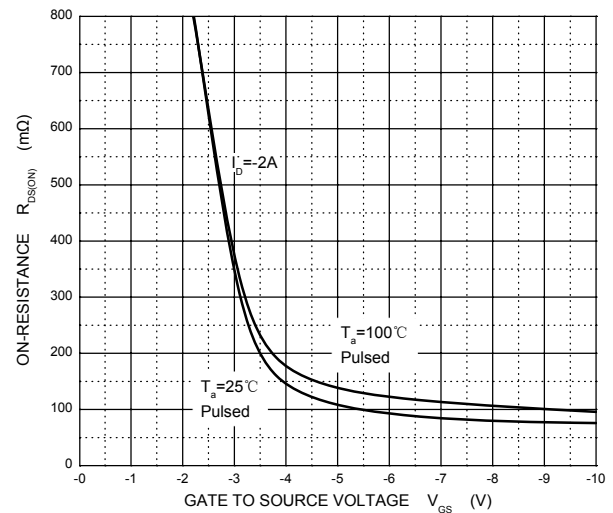
Transfer Characteristics



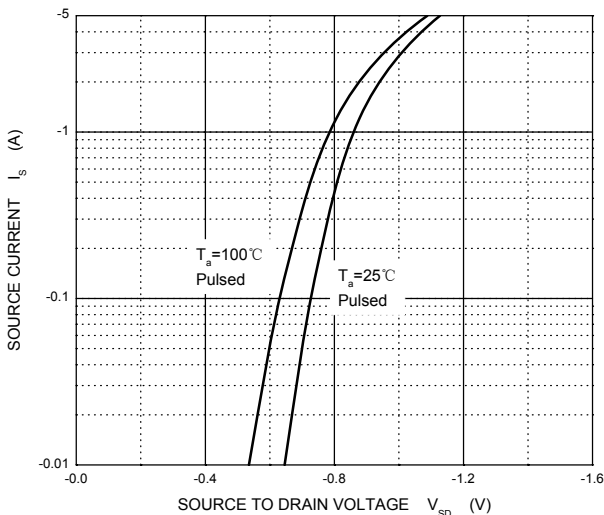
$R_{DS(ON)}$  —  $I_D$



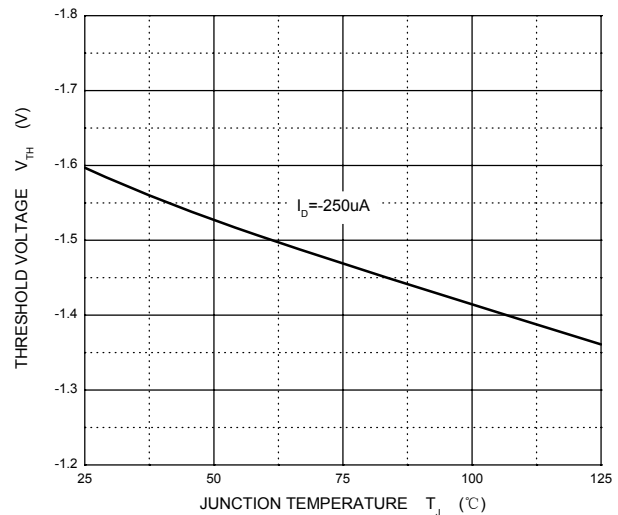
$R_{DS(ON)}$  —  $V_{GS}$



$I_S$  —  $V_{SD}$



Threshold Voltage



## Ordering Information :

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

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