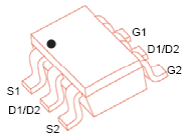
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-23-6L Plastic-Encapsulate MOSFETS

NCE8205 N-Channel MOSFETS

SOT-23-6L

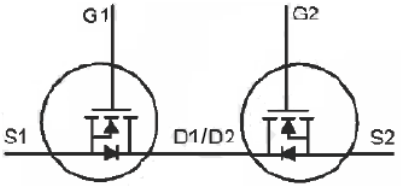


FEATURE

Low on-resistance

APPLICATIONS

Li-ion battery management applications



Maximum ratings (T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	19	V
Gate-Source Voltage	V_{GS}	±10	V
Continuous Drain Current	I_D	6	A
Power Dissipation (note 1, T_a=25℃)	P_D	0.35	W
Maximum Power Dissipation (note 2, T_c=25℃)		1.1	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	357	℃/W
Thermal Resistance from Junction to Case	$R_{\theta JC}$	114	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~+150	℃

Electrical characteristics (T_a=25℃ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	V_{GS} = 0V, I_D =250μA	19			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =18V,V_{GS} = 0V			1	μA
Gate-source leakage current	I_{GSS}	V_{GS} =±10V,V_{DS} = 0V			±100	nA
Drain-source on-resistance (note 3)	$R_{DS(on)}$	V_{GS} =4.5V,I_D =6A			27	mΩ
		V_{GS} =2.5V,I_D=5A			37	mΩ
Gate threshold voltage	$V_{GS(th)}$	V_{DS} =V_{GS},I_D =250μA	0.45		1.2	V
Source-drain diode characteristics						
Forward on voltage (note 3)	V_{SD}	I_S=1.25A,V_{GS}=0V			1.2	V

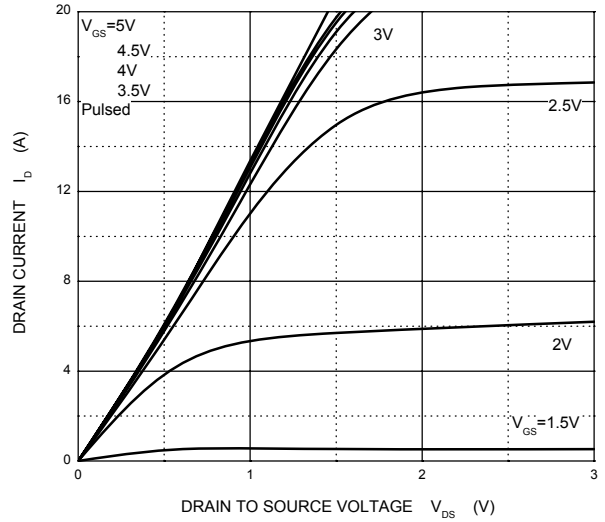
Notes:

1. This test is performed with no heat sink at T_a=25℃.
2. This test is performed with infinite heat sink at T_c=25℃.
3. Pulse Test : Pulse Width≤300μs, Duty Cycle ≤ 2%.

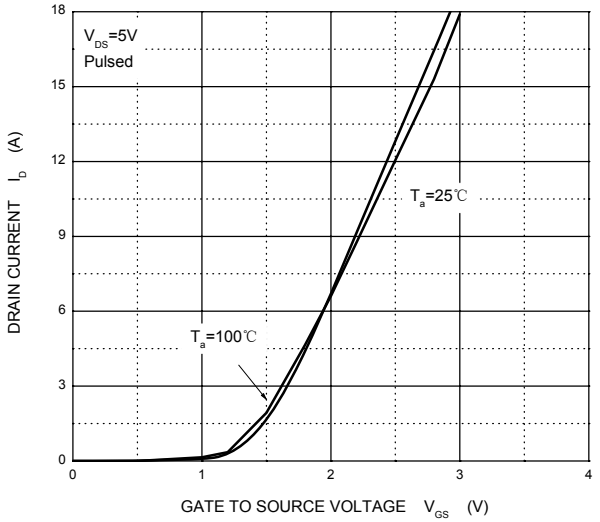
B,Aug,2011

Typical Characteristics NCE8205

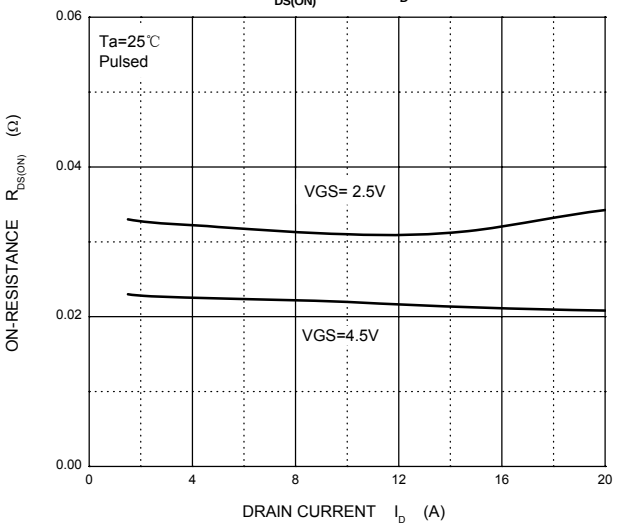
Output Characteristics



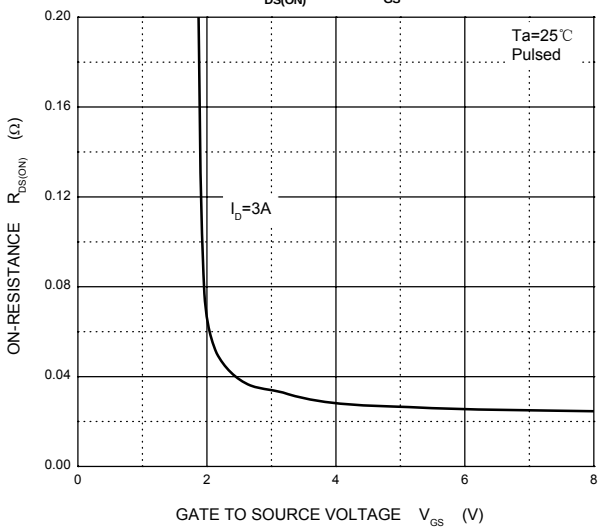
Transfer Characteristics



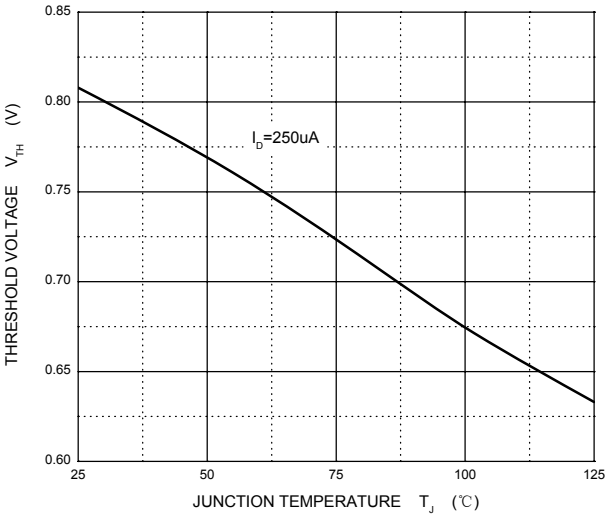
$R_{DS(ON)}$ —— I_D



$R_{DS(ON)}$ —— V_{GS}



Threshold Voltage



I_S —— V_{SD}