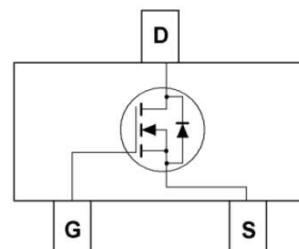


N-Channel Enhancement Mode MOSFET

Feature

- 16V/6A, R_{DS(ON)} = 50mΩ (MAX) @ V_{GS} = 4.5V.
R_{DS(ON)} = 55mΩ (MAX) @ V_{GS} = 2.5V.
- Super High dense cell design for extremely low R_{DS(ON)}.
- Reliable and Rugged .
- SC-59 for Surface Mount Package .


SC-59


Applications

- LI-ION Protection Circuit

Absolute Maximum Ratings T_A=25°C Unless Otherwise noted

Parameter	Symbol	Limit	Units
Drain-Source Voltage	V _{DS}	16	V
Gate-Source Voltage	V _{GS}	±12	V
Drain Current-Continuous	I _D	6	A

Electrical Characteristics T_A=25°C Unless Otherwise noted

Parameter	Symbol	Test Conditions	Min	Typ.	Max	Units
Off Characteristics						
Drain to Source Breakdown Voltage	BVDSS	V _{GS} =0V, I _D =250 μA	16	-	-	V
Zero-Gate Voltage Drain Current	I _{DSS}	V _D =6V, V _{GS} =0V	-	-	1	μA
Gate Body Leakage Current, Forward	IGSSF	V _{GS} =12V, V _D =0V	-	-	300	nA
Gate Body Leakage Current, Reverse	IGSSR	V _{GS} =-12V, V _D =0V	-	-	-300	nA
On Characteristics						
Gate Threshold Voltage	V _{GS(th)}	V _{GS} = V _D , I _D =250μA	0.4	-	1.3	V
Static Drain-source	R _{DS(ON)}	V _{GS} =4.5V, I _D =6.0A	-	40	50	mΩ
On-Resistance		V _{GS} =2.5V, I _D =5.2A	-	44	55	mΩ
Drain-Source Diode Characteristics and Maximum Ratings						
Drain-Source Diode Forward Voltage	V _{SD}	V _{GS} =0V, I _S =1.5A			1.2	V

Typical Characteristics

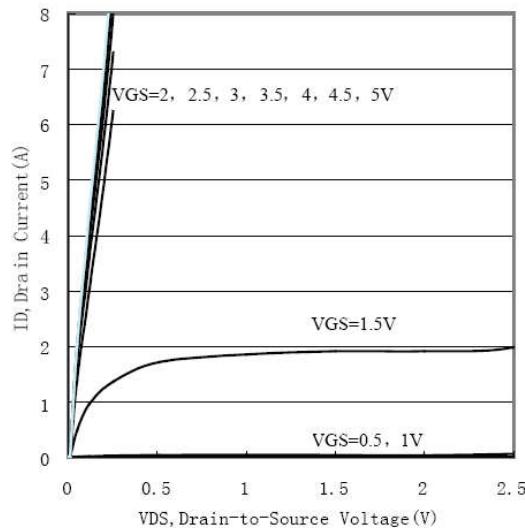


Figure 1. Output Characteristics

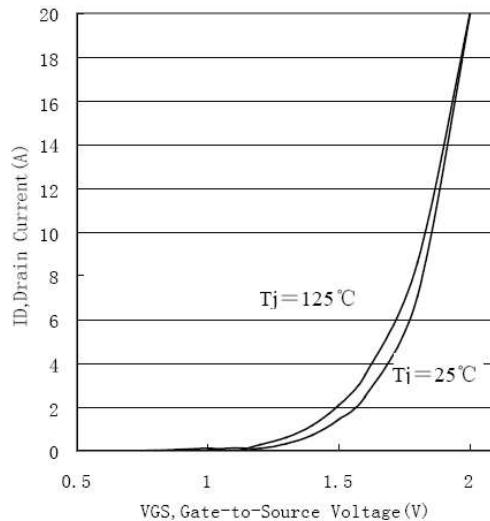


Figure 2. Transfer Characteristics

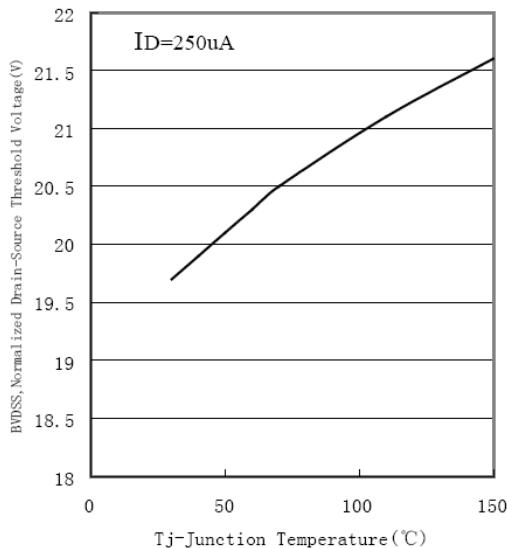


Figure 3. Breakdown Voltage Variation with Temperature

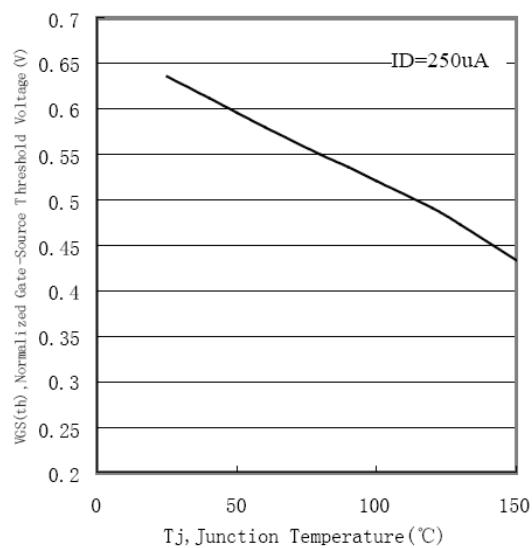


Figure 4. Gate Threshold Variation with Temperature

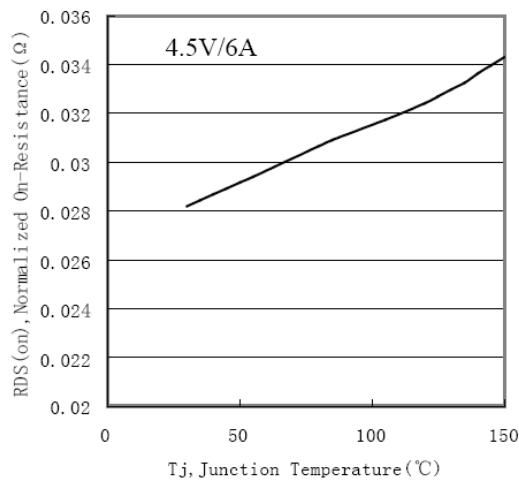


Figure 5. On-Resistance Variation with Temperature

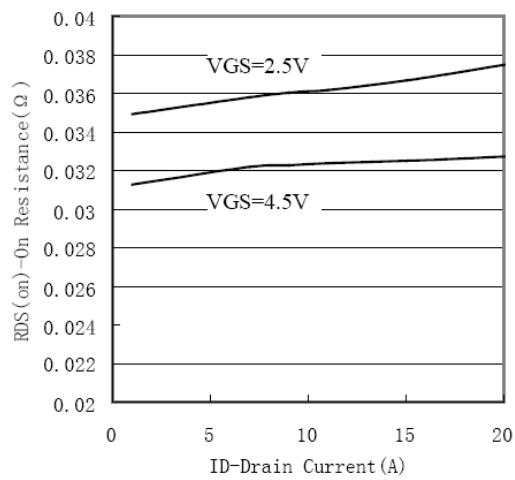


Figure 6. On-Resistance vs. Drain Current

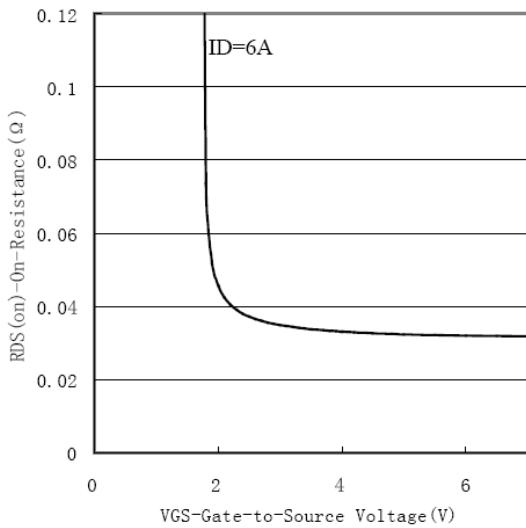


Figure 7. On-Resistance vs. Gate-to-Source Voltage

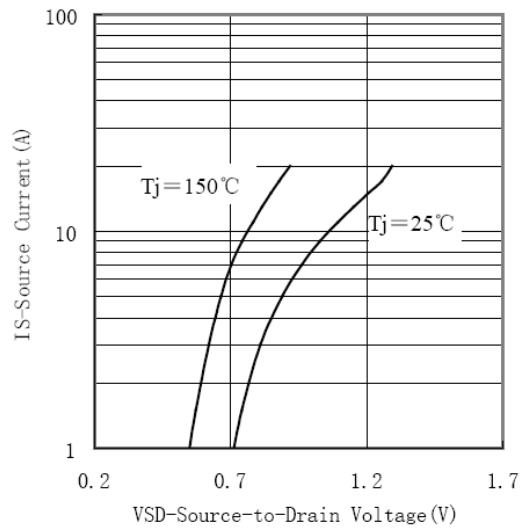


Figure 8. Source-Drain Diode Forward Voltage

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