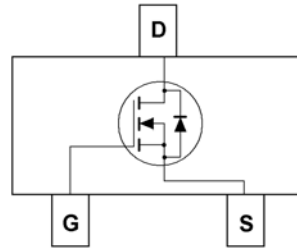


**N-Channel Enhancement Mode MOSFET**

**Feature**

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



**Applications**

- LI-ION Protection Circuit

**Absolute Maximum Ratings**

$T_A=25^{\circ}C$  Unless Otherwise noted

Parameter	Symbol	Limit	Units
Drain-Source Voltage	$V_{DS}$	16	V
Gate-Source Voltage	$V_{GS}$	$\pm 12$	V
Drain Current-Continuous	$I_D$	6	A

**Electrical Characteristics**

$T_A=25^{\circ}C$  Unless Otherwise noted

Parameter	Symbol	Test Conditions	Min	Typ.	Max	Units
<b>Off Characteristics</b>						
Drain to Source Breakdown Voltage	BVDSS	$V_{GS}=0V, I_D=250\mu A$	16	-	-	V
Zero-Gate Voltage Drain Current	IDSS	$V_{DS}=6V, V_{GS}=0V$	-	-	1	$\mu A$
Gate Body Leakage Current, Forward	IGSSF	$V_{GS}=12V, V_{DS}=0V$	-	-	100	nA
Gate Body Leakage Current, Reverse	IGSSR	$V_{GS}=-12V, V_{DS}=0V$	-	-	-100	nA
<b>On Characteristics</b>						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{GS}=V_{DS}, I_D=250\mu A$	0.4	-	1.3	V
Static Drain-source On-Resistance	$R_{DS(ON)}$	$V_{GS}=4.5V, I_D=6.0A$	-	40	50	$m\Omega$
		$V_{GS}=2.5V, I_D=5.2A$	-	44	55	$m\Omega$
<b>Drain-Source Diode Characteristics and Maximum Ratings</b>						
Drain-Source Diode Forward Voltage	VSD	$V_{GS}=0V, I_S=1.5A$			1.2	V

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Typical Characteristics

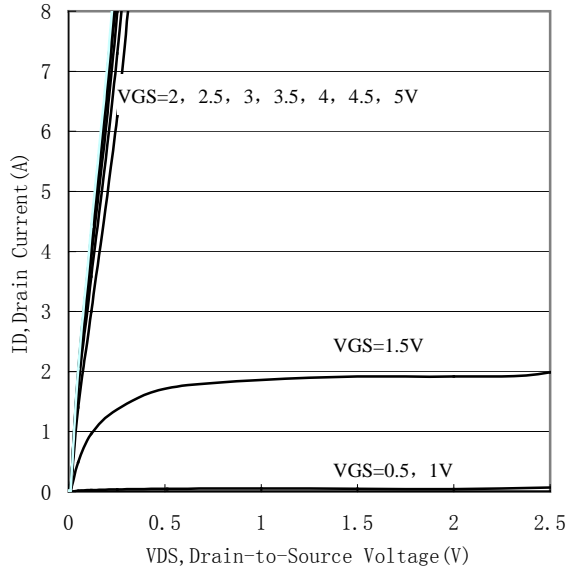


Figure 1. Output Characteristics

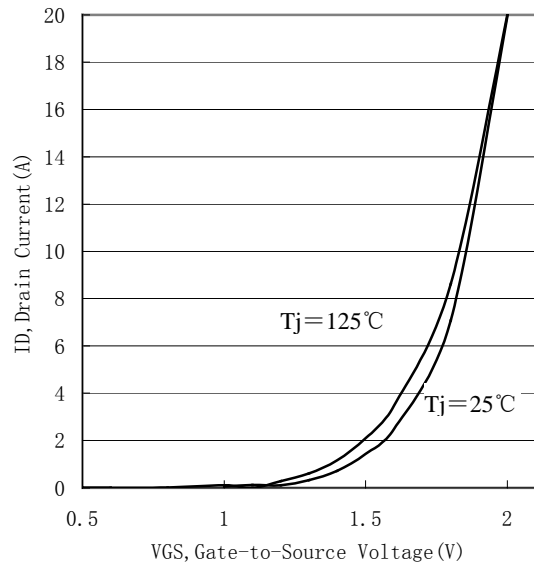


Figure 2. Transfer Characteristics

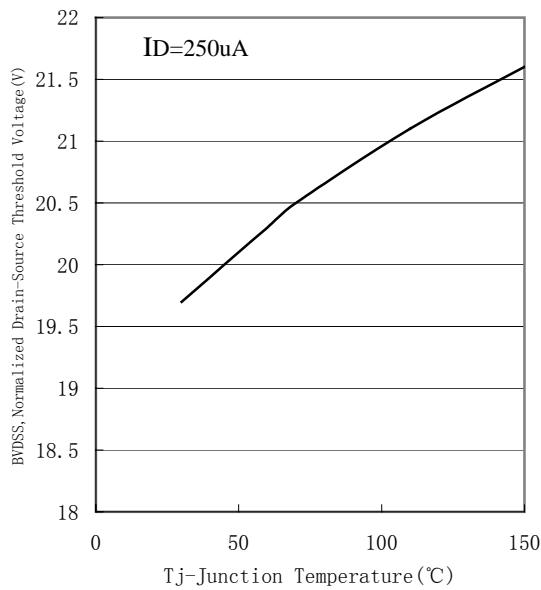


Figure 3. Breakdown Voltage Variation with Temperature

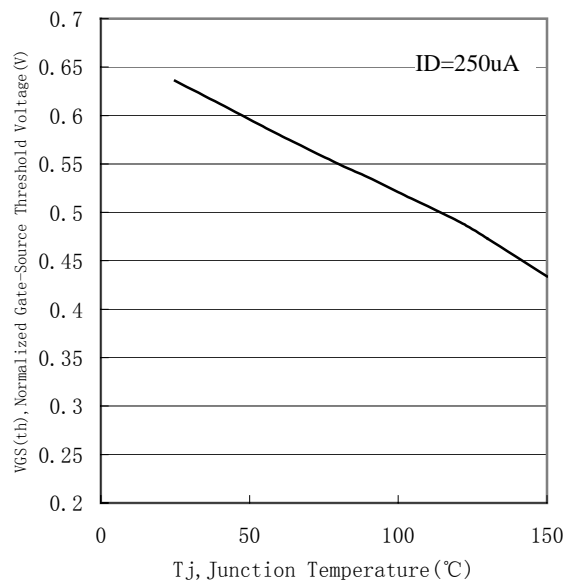


Figure 4. Gate Threshold Variation with Temperature

Typical Characteristics

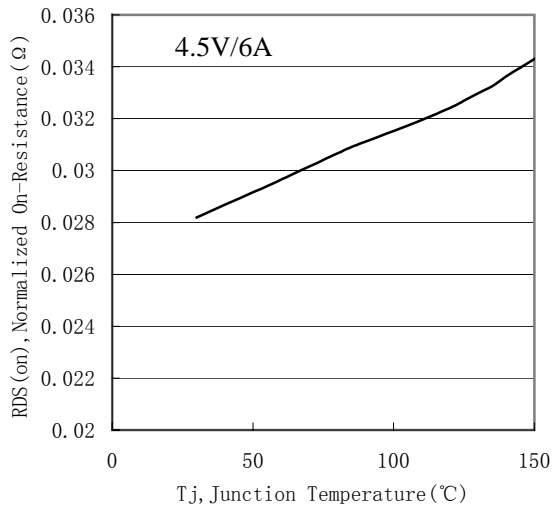


Figure 5. On-Resistance Variation with Temperature

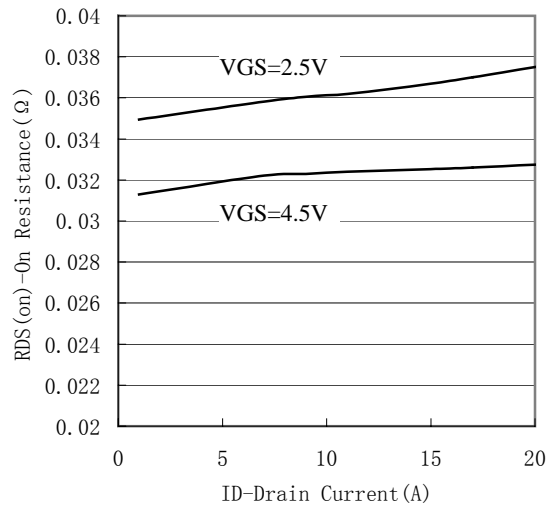


Figure 6. On-Resistance vs. Drain Current

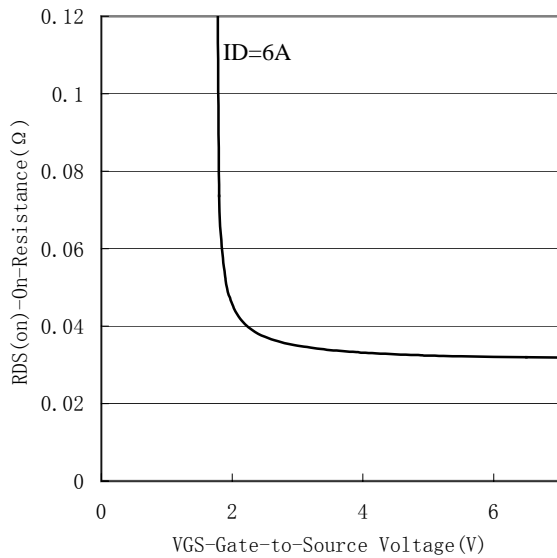


Figure 7. On-Resistance vs. Gate-to-Source Voltage

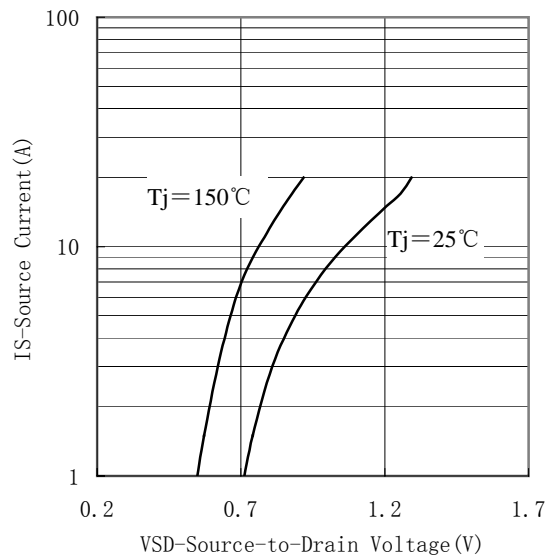


Figure 8. Source-Drain Diode Forward Voltage