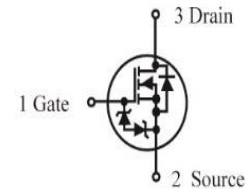
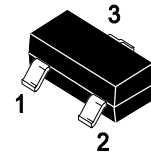


N-Channel Enhancement Mode MOSFET

Feature

- 50V/0.2A, $R_{DS(ON)}=3.5\ \Omega$ (MAX) @ $V_{GS}=5V, I_D=0.2A$.
 $R_{DS(ON)}=10\ \Omega$ (MAX) @ $V_{GS}=2.75V, I_D=0.2A$.
- Super High dense cell design for extremely low $R_{DS(ON)}$.
- Reliable and Rugged.
- Low Threshold Voltage (0.5V—1.5 V) Make it Ideal for Low Voltage Applications.
- ESD protected.
- SOT-23 for Surface Mount Package.



SOT23

Applications

Power Management in DC/DC Converters、 Portable and Battery-powered Products.

Absolute Maximum Ratings

$T_A=25^\circ\text{C}$

Unless Otherwise noted

Parameter	Symbol	Limit	Units
Drain-Source Voltage	VDS	50	V
Gate-Source Voltage	VGS	± 20	V
Drain Current-Continuous	ID	0.2	A

Electrical Characteristics

$T_A=25^\circ\text{C}$

Unless Otherwise noted

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Off Characteristics						
Drain-source Voltage	BVDSS	$V_{GS}=0V, I_D=250\mu A$	50	-	-	V
Zero-Gate Voltage Drain Current	IGSS	$V_{DS}=50V, V_{GS}=0V$	-	-	0.5	μA
		$V_{DS}=25V, V_{GS}=0V$	-	-	0.1	
Gate Body Leakage Current, Forward	IGSSF	$V_{GS}=20V, V_{DS}=0V$	-	-	300	nA
Gate Body Leakage Current, Reverse	IGSSR	$V_{GS}=-20V, V_{DS}=0V$	-	-	-300	nA
On Characteristics						
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS}=V_{DS}, I_D=1.0\text{ mA}$	0.5	-	1.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=5.0V, I_D=0.2A$	-	-	3.5	Ω
		$V_{GS}=2.75V, I_D=0.2A$	-	-	10	Ω
Drain-Source Diode Characteristics and Maximum Ratings						
Diode Forward Voltage	VSD	$V_{GS}=2.75V, I_D=0.2A$			2.5	V

Typical Characteristics

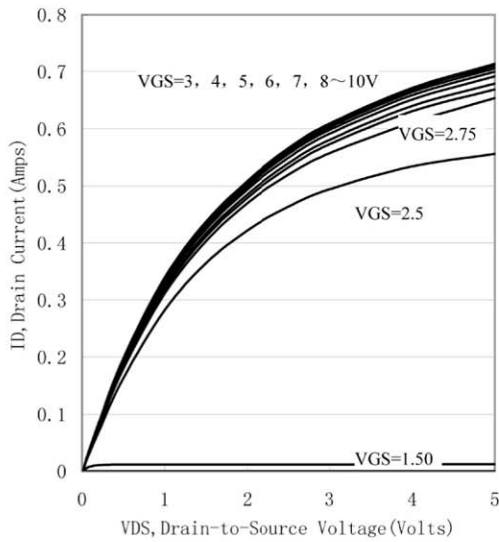


Figure 1. Output Characteristics

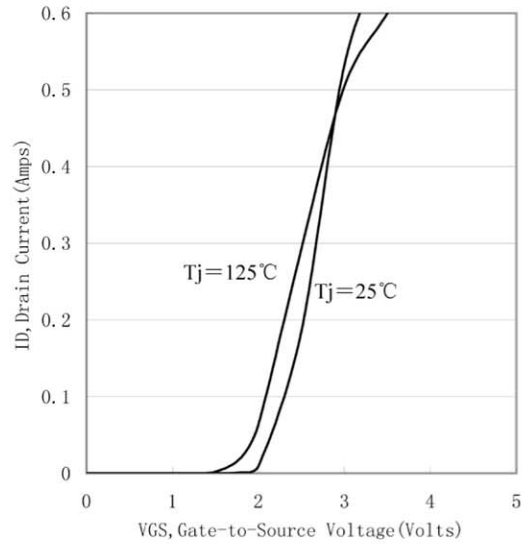


Figure 2. Transfer Characteristics

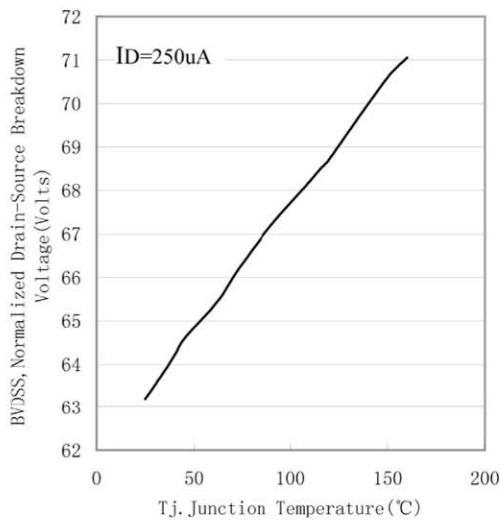


Figure 3. Breakdown Voltage Variation with Temperature

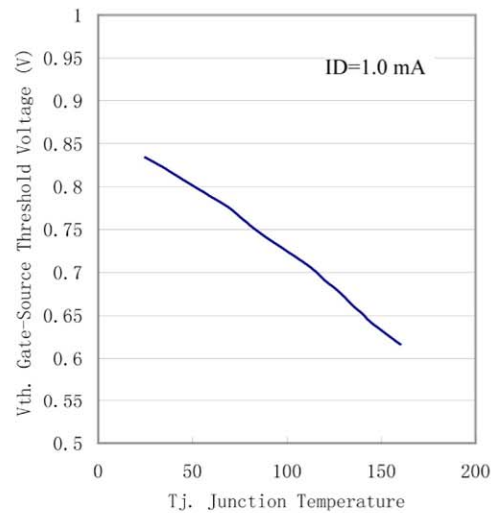


Figure 4. Gate Threshold Variation with Temperature

Typical Characteristics

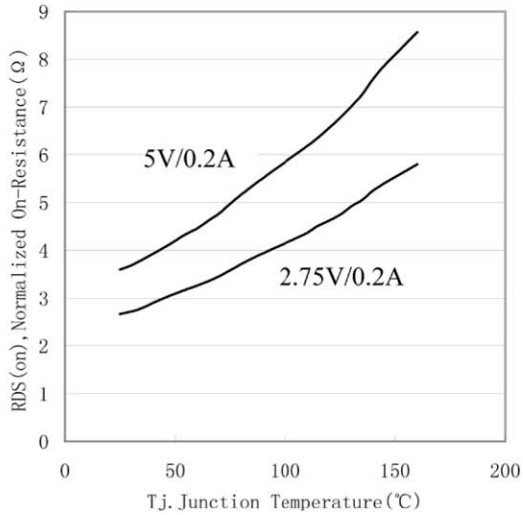


Figure 5. On-Resistance Variation with Temperature

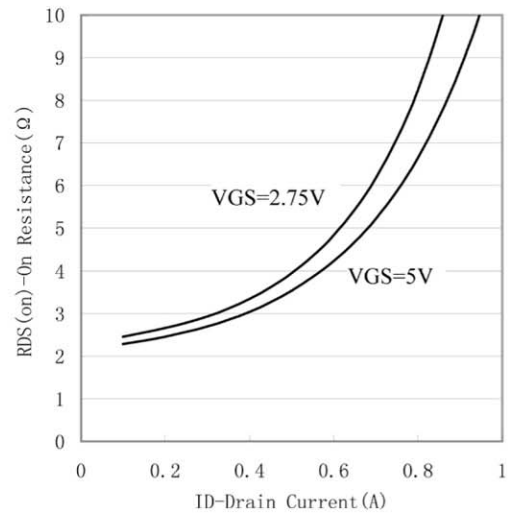


Figure 6. On-Resistance vs. Drain Current

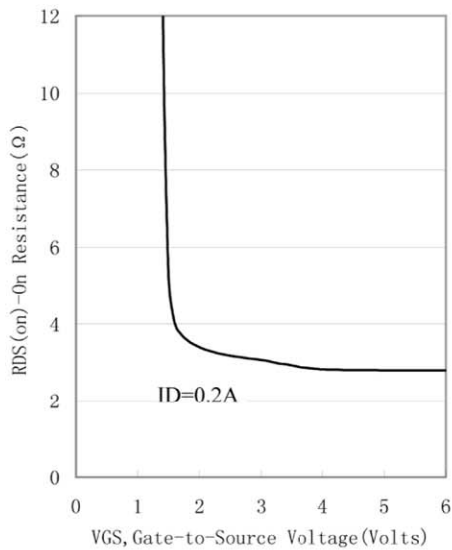


Figure 7. On-Resistance vs. Gate-to-Source Voltage

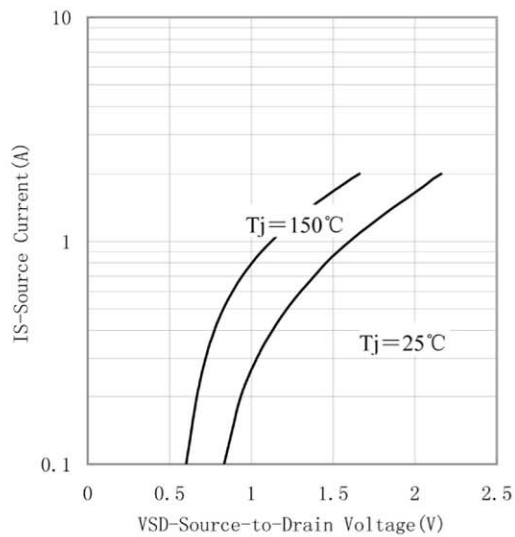


Figure 8. Source-Drain Diode Forward Voltage