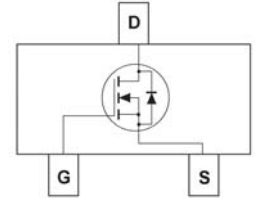


## N-Channel Enhancement Mode MOSFET

### Feature

- 30V/3.2A,  $R_{DS(ON)} = 35m\Omega(MAX) @V_{GS} = 10V$ .  
 $R_{DS(ON)} = 40m\Omega(MAX) @V_{GS} = 4.5V$ .  
 $R_{DS(ON)} = 55m\Omega(MAX) @V_{GS} = 2.5V$ .
- Super High dense cell design for extremely low  $R_{DS(ON)}$ .
- Reliable and Rugged.
- SOT-23 for Surface Mount Package.



### Applications

- Power Management
- Portable Equipment and Battery Powered Systems.

SOT-23

### Absolute Maximum Ratings $T_A=25^\circ C$ Unless Otherwise noted

Parameter	Symbol	Limit	Units
Drain-Source Voltage	$V_{DS}$	30	V
Gate-Source Voltage	$V_{GS}$	$\pm 12$	V
Drain Current-Continuous	$I_D$	3.2	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	$V_{GS}=0V, I_D=250\mu A$	30	-	-	V
Zero-Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=30V, V_{GS}=0V$	-	-	1	$\mu A$
Gate Body Leakage Current, Forward	$I_{GSSF}$	$V_{GS}=12V, V_{DS}=0V$	-	-	100	nA
Gate Body Leakage Current, Reverse	$I_{GSSR}$	$V_{GS}=-12V, V_{DS}=0V$	-	-	-100	nA
<b>On Characteristics</b>						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{GS}=V_{DS}, I_D=250\mu A$	0.6	-	1.5	V
Static Drain-source On-Resistance	$R_{DS(ON)}$	$V_{GS}=10V, I_D=5.8A$	-	30	35	$m\Omega$
		$V_{GS}=4.5V, I_D=5A$	-	33	40	$m\Omega$
		$V_{GS}=2.5V, I_D=4A$	-	45	55	$m\Omega$
<b>Drain-Source Diode Characteristics and Maximum Ratings</b>						
Drain-Source Diode Forward Voltage	VSD	$V_{GS}=0V, I_S=1.25A$			1.2	V

## Typical Characteristics

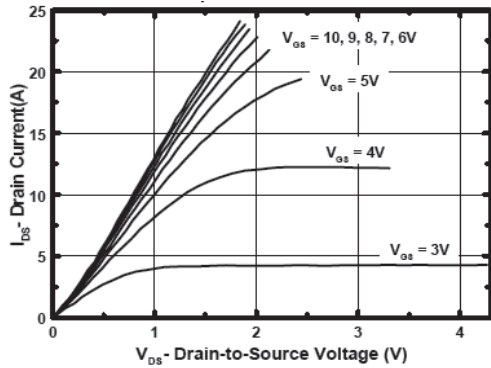


Figure 1. Output Characteristics

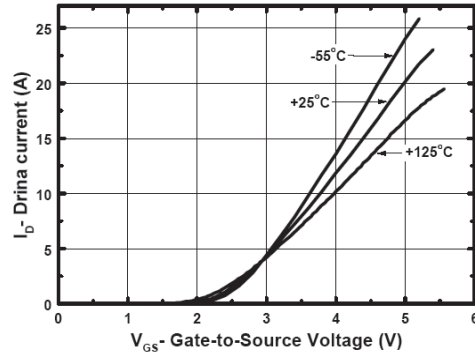


Figure 2. Transfer Characteristics

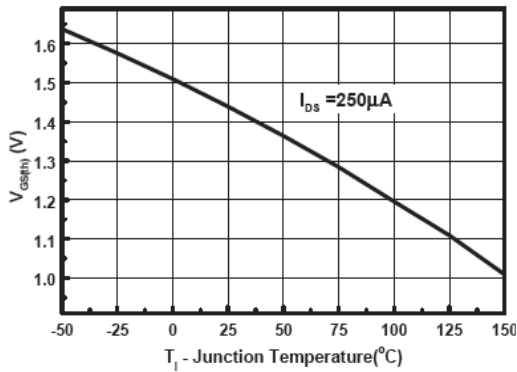


Figure 3. Gate Threshold Variation with Temperature

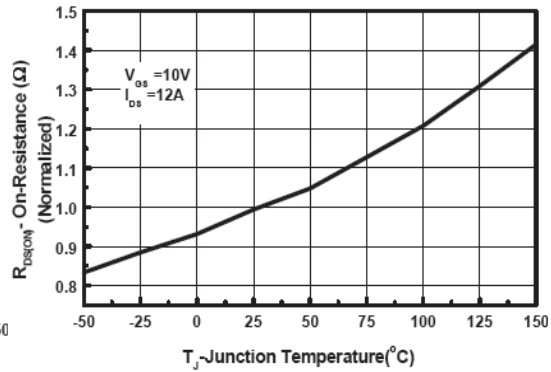


Figure 4. On-Resistance Variation with Temperature

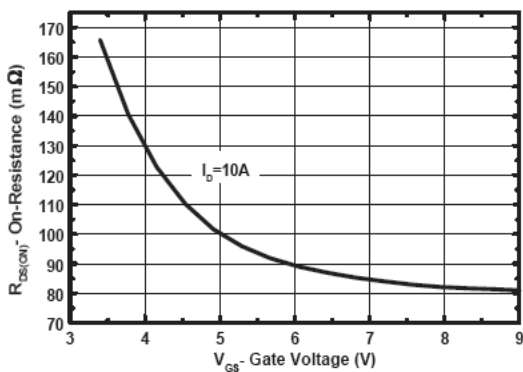


Figure 5. On-Resistance vs. Gate-to-Source Voltage

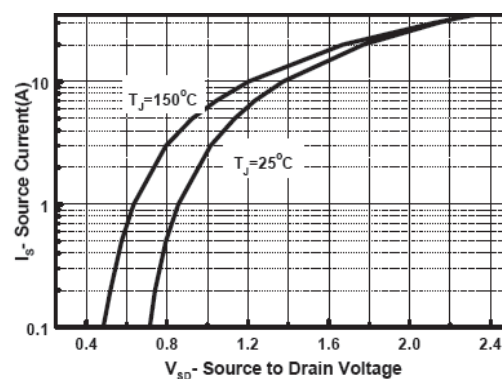
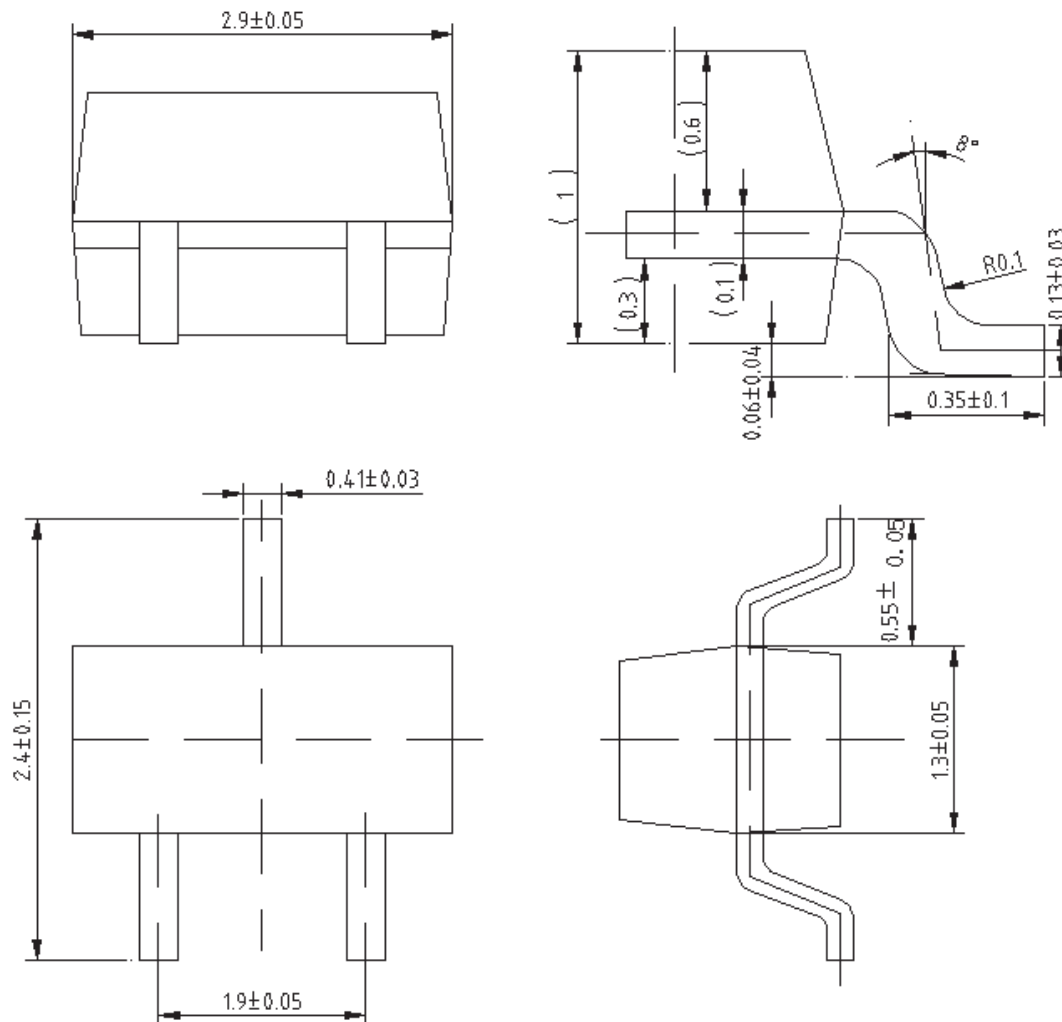


Figure 6. Source-Drain Diode Forward

## Package Outline Dimensions (UNIT: mm)

SOT-23



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