

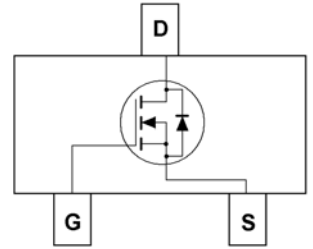
N-Channel Enhancement Mode MOSFET

Feature

- 20V/3.0A, $R_{DS(ON)} = 80\text{m}\Omega$ (MAX) @ $V_{GS} = 4.5\text{V}$.
 $R_{DS(ON)} = 90\text{m}\Omega$ (MAX) @ $V_{GS} = 2.5\text{V}$.
- Super High dense cell design for extremely low $R_{DS(ON)}$.
- Reliable and Rugged.
- SOT-23 for Surface Mount Package.



SOT-23



Applications

- Power Management
Portable Equipment and Battery Powered Systems.

Absolute Maximum Ratings

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

Parameter	Symbol	Limit	Units
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 8	V
Drain Current-Continuous	I_D	3.0	A

Electrical Characteristics

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

Parameter	Symbol	Test Conditions	Min	Typ.	Max	Units
Off Characteristics						
Drain to Source Breakdown Voltage	BVDSS	VGS=0V, ID=250μA	20	-	-	V
Zero-Gate Voltage Drain Current	IDSS	VDS=12V, VGS=0V	-	-	1	μA
Gate Body Leakage Current, Forward	IGSSF	VGS=8V, VDS=0V	-	-	100	nA
Gate Body Leakage Current, Reverse	IGSSR	VGS=-8V, VDS=0V	-	-	-100	nA
On Characteristics						
Gate Threshold Voltage	VGS(th)	VGS= VDS, ID=250μA	0.4	-	1.3	V
Static Drain-source	RDS(ON)	VGS =4.5V, ID =3.6A	-	70	80	m Ω
On-Resistance		VGS =2.5V, ID =3.1A	-	75	90	m Ω
Drain-Source Diode Characteristics and Maximum Ratings						
Drain-Source Diode Forward Voltage	VSD	VGS =0V, IS=0.94A			1.2	V

Typical Characteristics

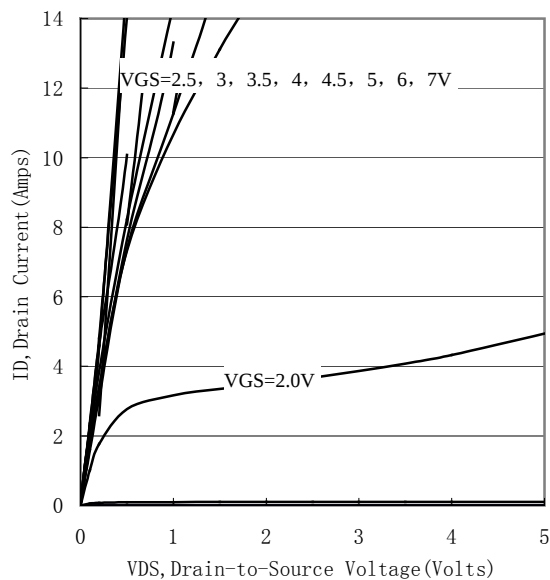


Figure 1. Output Characteristics

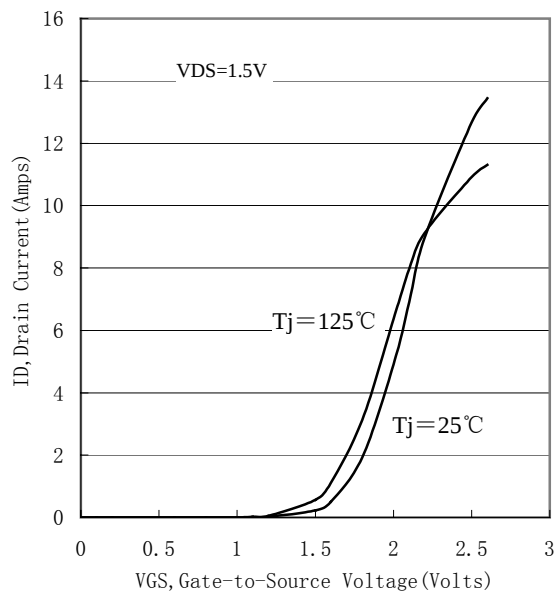


Figure 2. Transfer Characteristics

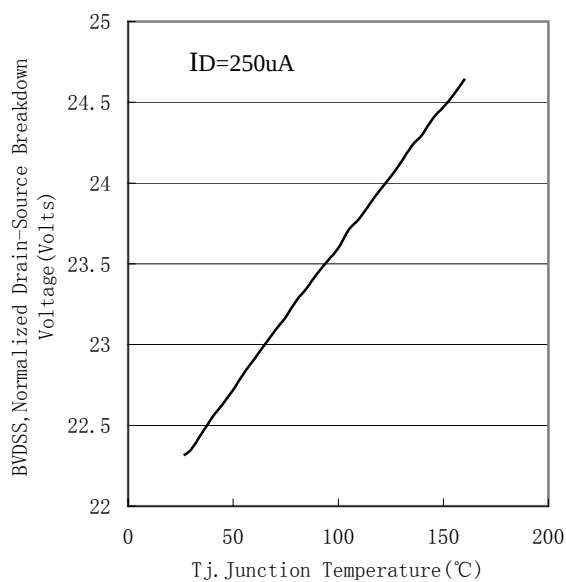


Figure 3. Breakdown Voltage Variation with Temperature

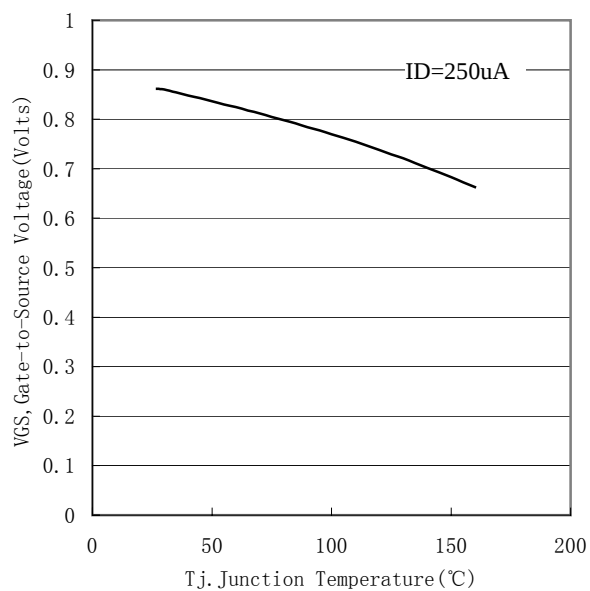


Figure 4. Gate Threshold Variation with Temperature

Typical Characteristics

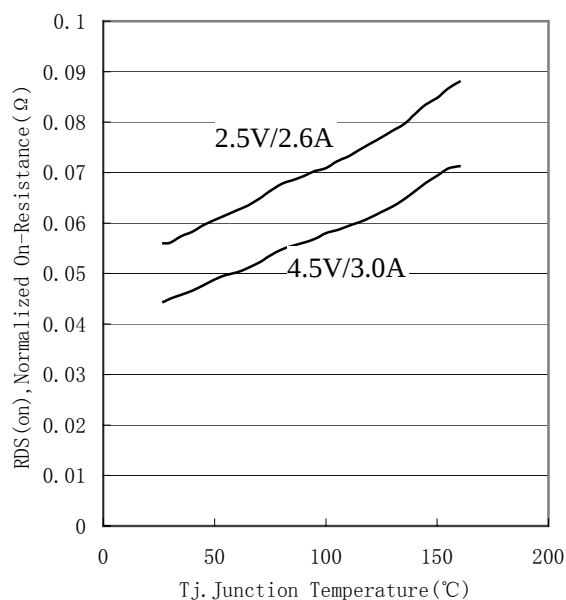


Figure 5. On-Resistance Variation with Temperature

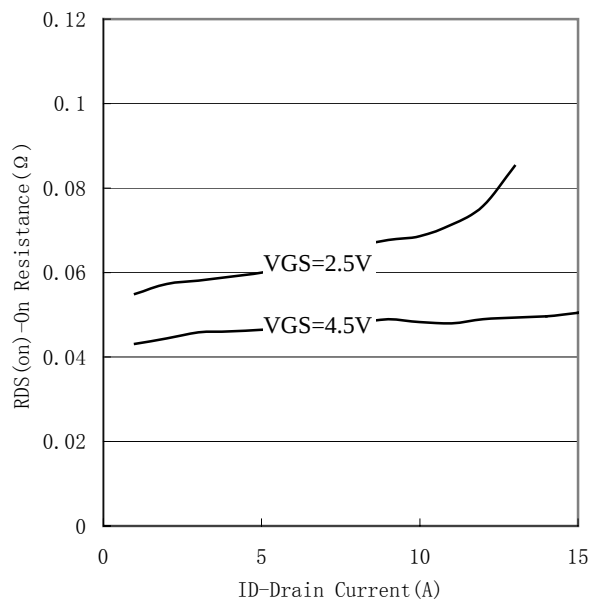


Figure 6. On-Resistance vs. Drain Current

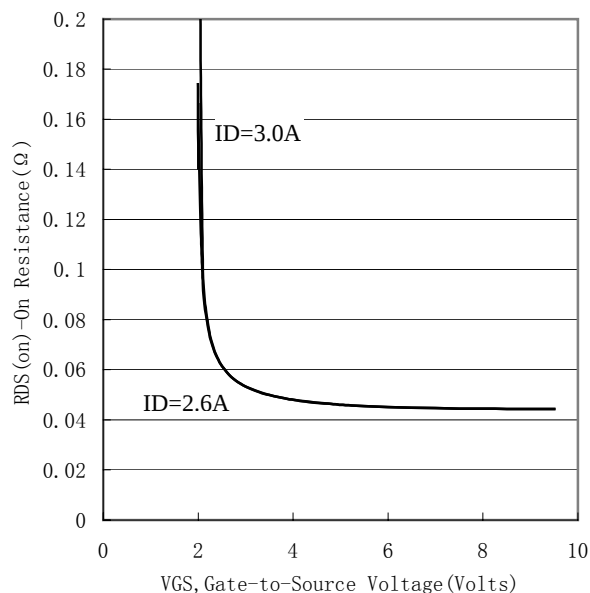


Figure 7. On-Resistance vs. Gate-to-Source Voltage

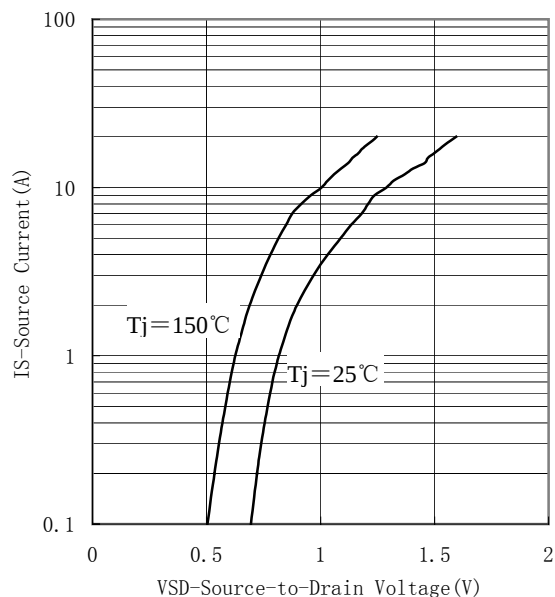


Figure 8. Source-Drain Diode Forward Voltage

Package Outline Dimensions (UNIT: mm)

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