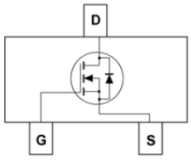
N-Channel Enhancement Mode MOSFET

Feature

- 20V/3A, $R_{DS(ON)}$ = 80mΩ(MAX) @V_{GS} = 4.5V.
  $R_{DS(ON)}$ = 90mΩ(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

- Power Management
- Portable Equipment and Battery Powered Systems.

Absolute Maximum Ratings T_A=25℃ 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℃ 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 On-Resistance	RDS(ON)	VGS =4.5V, ID =3.6A	-	70	80	mΩ
		VGS =2.5V, ID =3.1A	-	75	90	mΩ
Drain-Source Diode Characteristics and Maximum Ratings						
Drain-Source Diode Forward Voltage	VSD	VGS =0V, IS=0.94A			1.2	V

Typical Characteristics

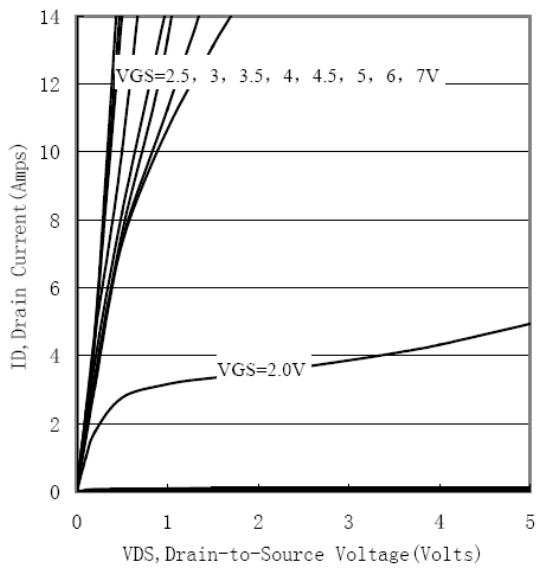


Figure 1. Output Characteristics

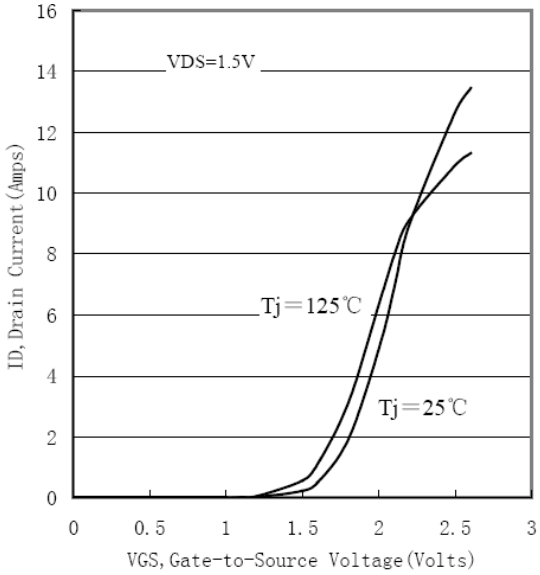


Figure 2. Transfer Characteristics

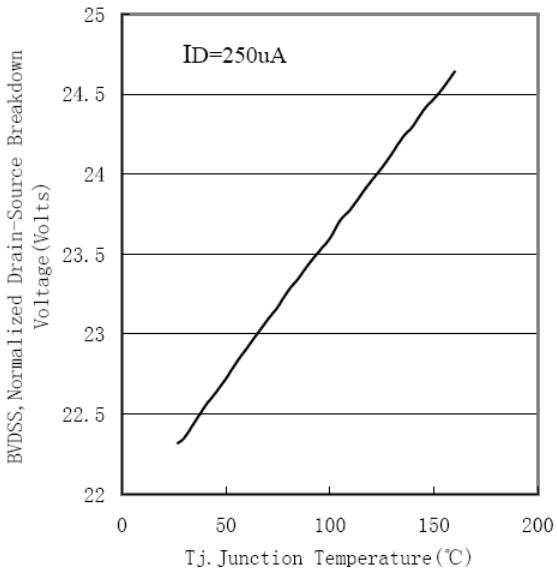


Figure 3. Breakdown Voltage Variation with Temperature

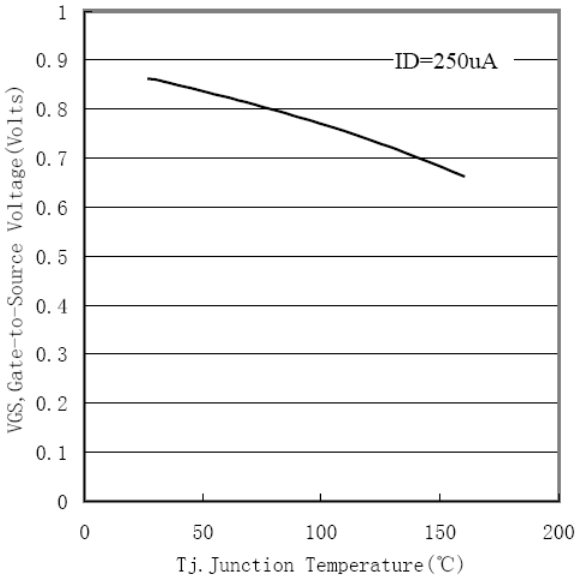


Figure 4. Gate Threshold Variation with Temperature

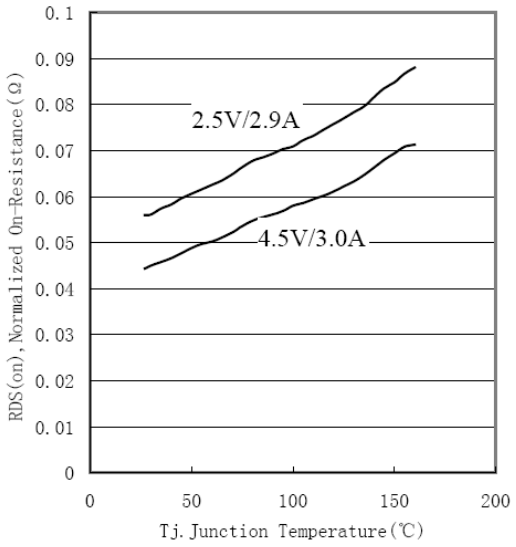


Figure 5. On-Resistance Variation with Temperature

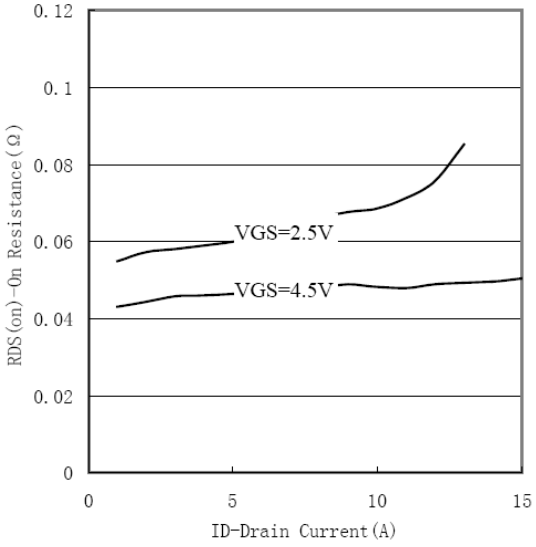


Figure 6. On-Resistance vs. Drain Current

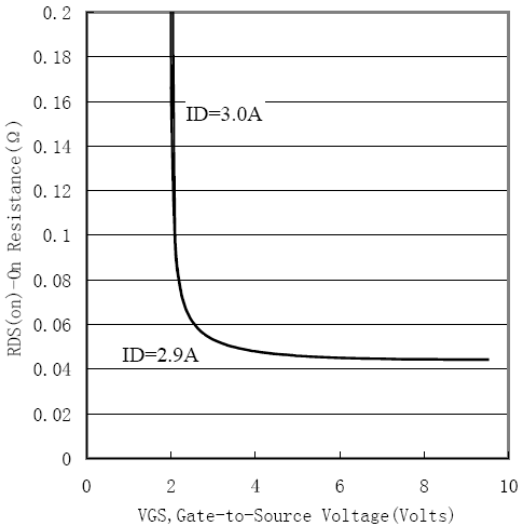


Figure 7. On-Resistance vs. Gate-to-Source Voltage

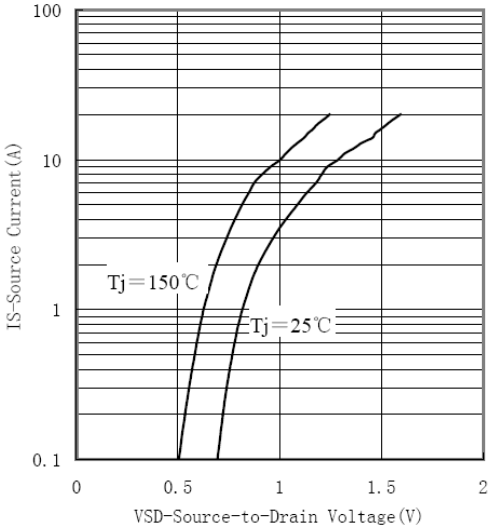


Figure 8. Source-Drain Diode Forward Voltage