

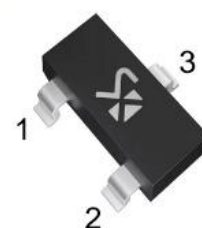
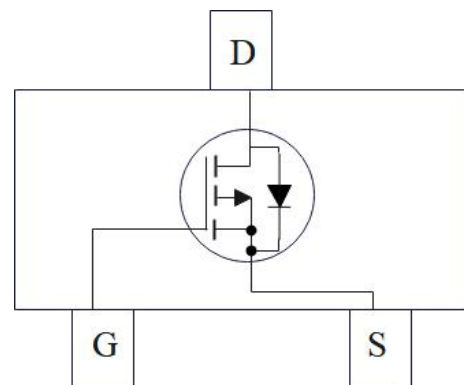
P-Channel Enhancement Mode MOSFET

Features

- -30V/-3.2A, $R_{DS(ON)}=70m\Omega(Max)@V_{GS}=-10V$
 $R_{DS(ON)}=90m\Omega(Max)@V_{GS}=-4.5V$
- Super High dense cell design for extremely low $R_{DS(ON)}$
- Reliable and Rugged
- SC-59 for Surface Mount Package

Applications

- Power Management
- Portable Equipment and Battery Powered Systems.



SC-59

Absolute Maximum Ratings

$T_A=25^{\circ}C$, unless otherwise noted.

Parameter	Symbol	Limit	Unit
Drain-source Voltage	V_{DS}	-30	V
Gate-source Voltage	V_{GS}	± 20	V
Drain Current-Continuous	I_D	-3.2	A
Maximum Junction-to-Ambient	R_{thJA}	130	$^{\circ}C/W$
Power Dissipation	P_D	1.25	W
Junction Temperature	T_J	-50~150	$^{\circ}C$
Storage Temperature Range	T_{STG}	-50~150	$^{\circ}C$

Electrical Characteristics

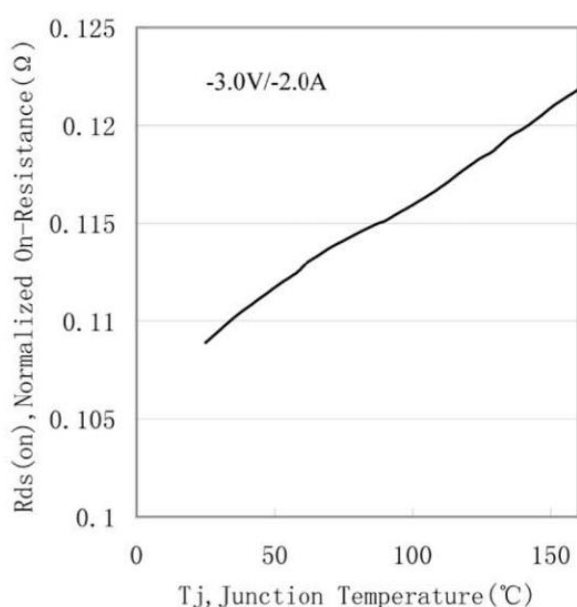
$T_A=25^{\circ}C$, unless otherwise noted.

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Static						
Drain-source breakdown voltage	BV_{DSS}	$V_{GS}=0V, I_D=-250\mu A$	-30			V
Drain-source leakage current	I_{DSS}	$V_{DS}=-30V, V_{GS}=0V$			-1	μA
Gate-source leakage current, Forward	I_{GSSF}	$V_{GS}=20V, V_{DS}=0V$			100	nA
Gate-source leakage current, Reverse	I_{GSSR}	$V_{GS}=-20V, V_{DS}=0V$			-100	nA
On Characteristics						

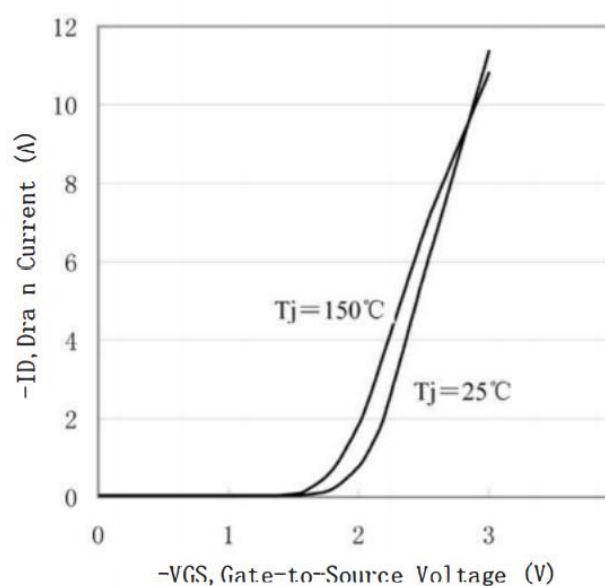
Gate Threshold voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-1		-3	V
Drain-source on resistance	R _{DS(on)}	V _{GS} = -10V, I _D = -3.2A		52	70	m Ω
		V _{GS} = -4.5V, I _D = -2.5A		70	90	
Drain-Source Diode Characteristics and Maximum Ratings						
Diode forward voltage drop	V _{SD}	V _{GS} =0V, I _S =1.25A			-1.2	V

Typical Characteristics

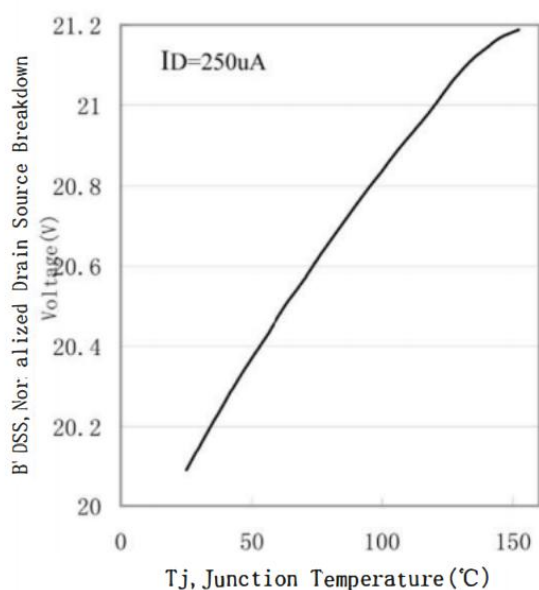
1. Output Characteristics



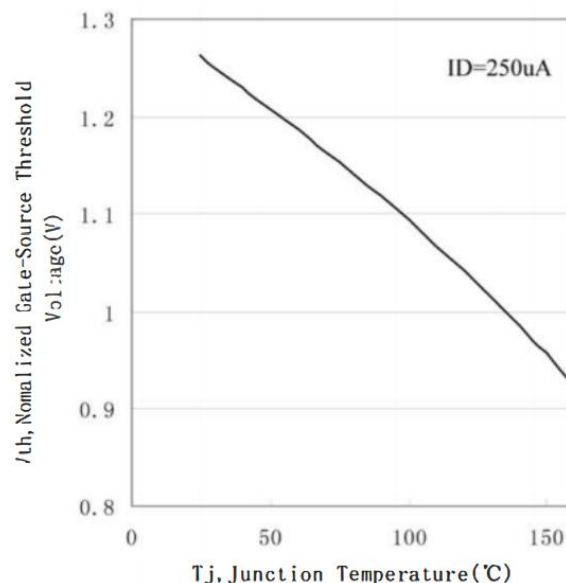
2. Transfer Characteristics



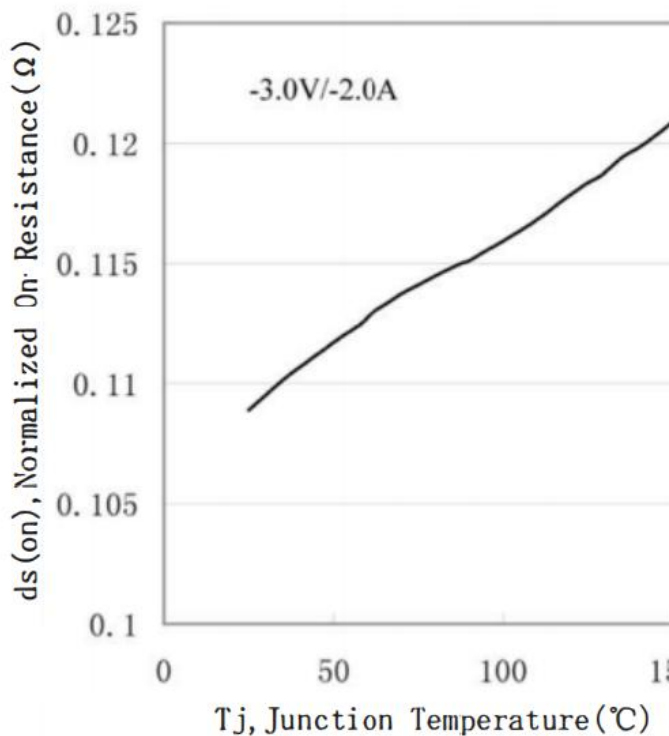
3. Breakdown Voltage Variation with Temperature



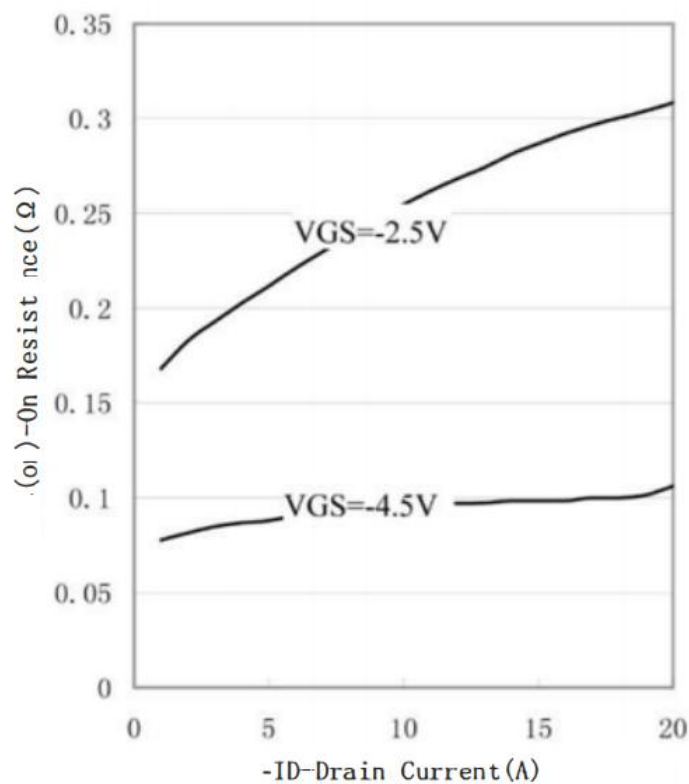
4. Gate Threshold Variation with Temperature



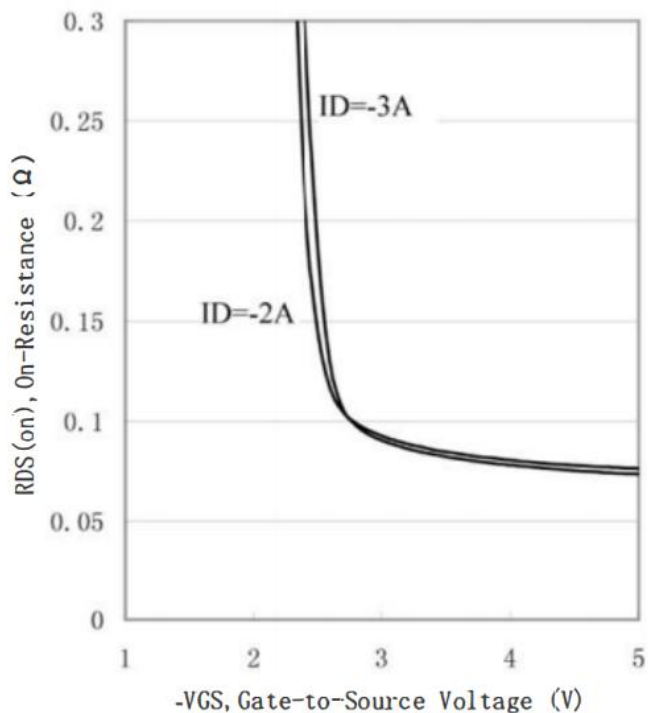
5. On-Resistance Variation with Temperature



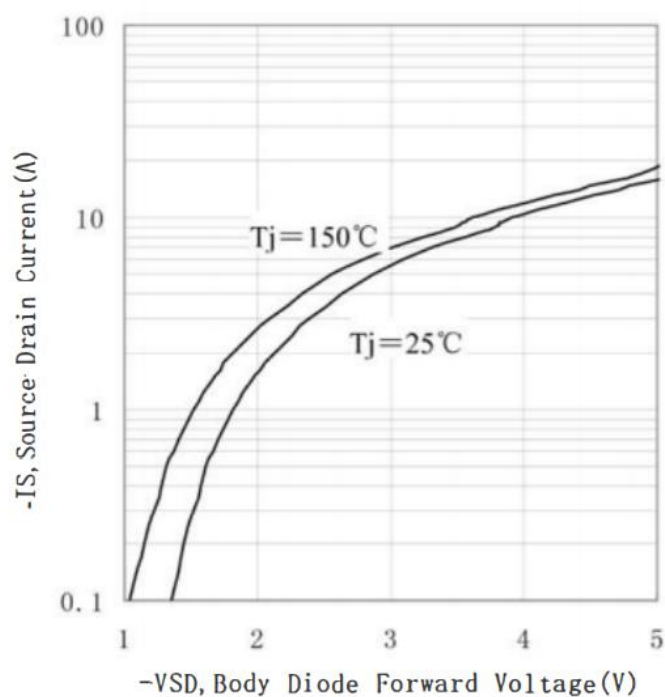
6. On-Resistance vs. Drain Current



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



8. Source-Drain Diode Forward Voltage



Package Information

SC-59

Dimensions in mm

