晧科
SHIKUES

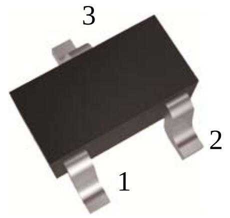
SK3400

N-Channel Enhancement Mode MOSFET

Feature

- 30V/5.8A, RDS(ON) = 35mΩ(MAX) @VGS = 10V.
  RDS(ON) =40mΩ(MAX) @VGS = 4.5V.
  RDS(ON) =55mΩ(MAX) @VGS = 2.5V.
- Super High dense cell design for extremely low RDS(ON) .
- Reliable and Rugged.
- SC-59 for Surface Mount Package.

SC-59



1：Gate 2：Source 3：Drain

Applications

- Power Management
- Portable Equipment and Battery Powered Systems.

Absolute Maximum Ratings

TA=25℃ Unless Otherwise noted

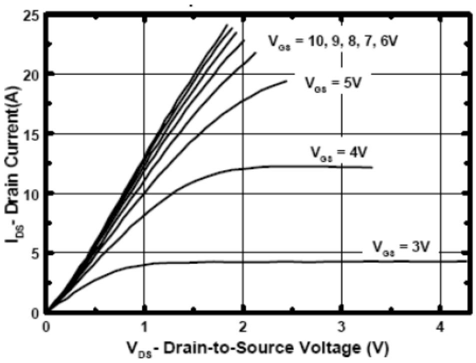
Parameter	Symbol	Limit	Units
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	±12	V
Drain Current-Continuous	I_D	5.8	A

Electrical Characteristics

TA=25℃ Unless Otherwise noted

Parameter	Symbol	Test Conditions	Min	Typ.	Max	Units
Off Characteristics						
Drain to Source Breakdown Voltage	BVDSS	VGS=0V, ID=250μA	30	-	-	V
Zero-Gate Voltage Drain Current	IDSS	VDS=30V, VGS=0V	-	-	1	μA
Gate Body Leakage Current, Forward	IGSSF	VGS=12V, VDS=0V	-	-	100	nA
Gate Body Leakage Current, Reverse	IGSSR	VGS=-12V, VDS=0V	-	-	-100	nA
On Characteristics						
Gate Threshold Voltage	VGS(th)	VGS= VDS, ID=250μA	0.6	-	1.5	V
Static Drain-source On-Resistance	RDS(ON)	VGS =10V, ID =5.8A	-	30	35	mΩ
		VGS =4.5V, ID =5A	-	33	40	mΩ
		VGS =2.5V, ID =4A	-	45	55	mΩ
Drain-Source Diode Characteristics and Maximum Ratings						
Drain-Source Diode Forward Voltage	VSD	VGS =0V, IS=1.25A			1.2	V

Dynamic						
Q_g	Total Gate Charge	VDS=15V,VGS=10V,ID=2A		8.5	12	nC
Q_{gs}	Gate-Source Charge			1.1		
Q_{gd}	Gate-Drain Charge			1.8		
t_{on}	Turn-on Time	VDD=15V,ID=2A,VGS=10V,RG=6Ω			40	nS
$t_{d(ON)}$	Turn-on Delay time			11		
t_r	Turn-on Rise Time			17		
$T_{d(off)}$	Turn-off Delay Time			37		
t_f	Turn-off Fall Time			20		
t_{off}	Turn-off Time				60	



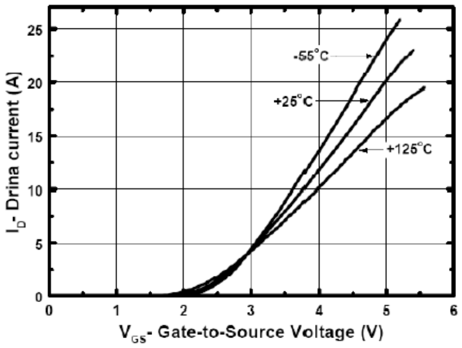
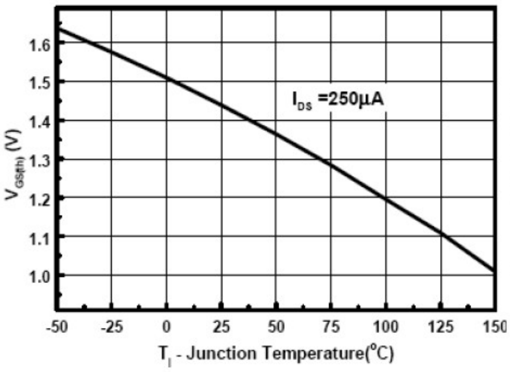


Figure 1． Output Characteristics

Figure 2． Transfer Characteristics



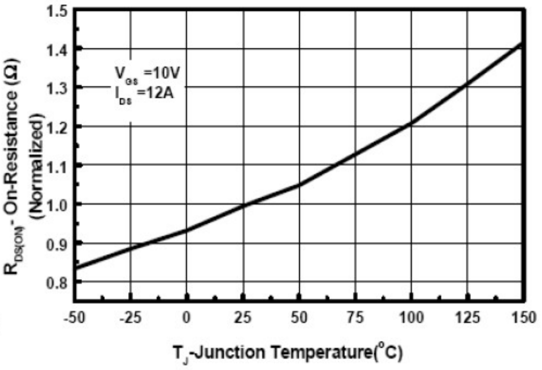
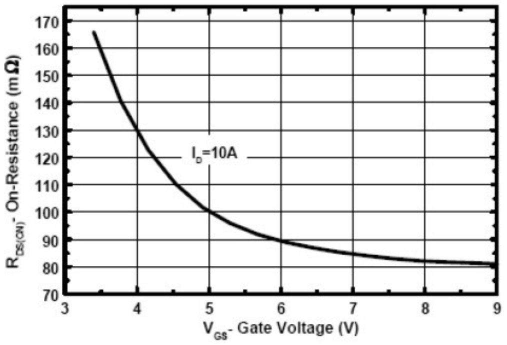


Figure 3． Gate Threshold Variation with Temperature

Figure 4． On-Resistance Variation with Temperature



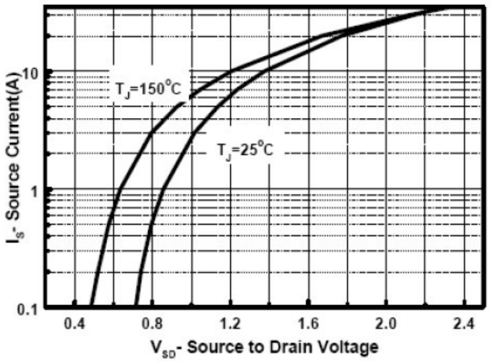


Figure 5． On-Resistance vs. Gate-to-Source Voltage

Figure 6． Source-Drain Diode Forward Voltage

Package Outline Dimensions (UNIT: mm)

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