Elektronische Bauelemente

SSK3018K

100mA, 30V
N-Channel MOSFET

RoHS Compliant Product
A Suffix of "-C" specifies halogen & lead-free

DESCRIPTION

- Low on-resistance
- Fast switching speed
- Easily designed drive circuits
- Easy to parallel

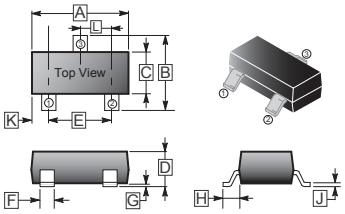
FEATURES

- Simple drive requirement
- Small package outline

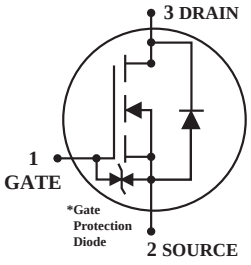
MARKING

KN

SOT-323



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.80	2.20	G	0.100 REF.	
B	1.80	2.45	H	0.525 REF.	
C	1.15	1.35	J	0.08	0.25
D	0.80	1.10	K	-	-
E	1.20	1.40	L	0.650 TYP.	
F	0.20	0.40			



MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Drain – Source Voltage	V_{DS}	30	V
Gate – Source Voltage	V_{GS}	±20	V
Continuous Drain Current	I_D	100	mA
Power Dissipation [1]	P_D	200	mW
Maximum Junction to Ambient	$R_{\theta JA}$	625	°C / W
Operating Junction & Storage Temperature Range	T_J, T_{STG}	150, -55~150	°C

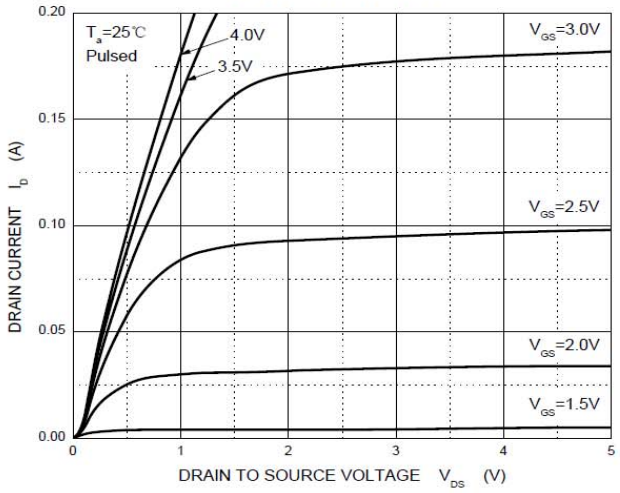
ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Off Characteristics						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	30	-	-	V	V_{GS}=0, I_D =10μA
Gate-Threshold Voltage	$V_{GS(TH)}$	0.8	-	1.5	V	V_{DS}=3V, I_D =100μA
Gate-Source Leakage Current	I_{GSS}	-	-	±500	nA	V_{GS}=±20V, V_{DS}=0
Drain-Source Leakage Current	I_{DSS}	-	-	0.2	μA	V_{DS}=30V, V_{GS}=0
Static Drain-Source On-Resistance	$R_{DS(ON)}$	-	-	8	Ω	V_{GS}=4V, I_D=10mA
		-	-	13		V_{GS}=2.5V, I_D=1mA
Forward Transconductance	g_{FS}	20	-	-	ms	V_{DS}=3V, I_D=10mA
Dynamic Characteristics[1]						
Input Capacitance	C_{ISS}	-	13	-	pF	V_{DS}=5V
Output Capacitance	C_{OSS}	-	9	-		V_{GS}=0
Reverse Transfer Capacitance	C_{RSS}	-	4	-		f=1MHz
Switching Characteristics[1]						
Turn-on Delay Time	$T_{d(ON)}$	-	15	-	nS	V_{GS}=5V, V_{DD}=5V
Rise Time	T_R	-	35	-		I_D=10mA
Turn-off Delay Time	$T_{d(OFF)}$	-	80	-		R_L=500Ω
Fall Time	T_R	-	80	-		R_G=10Ω

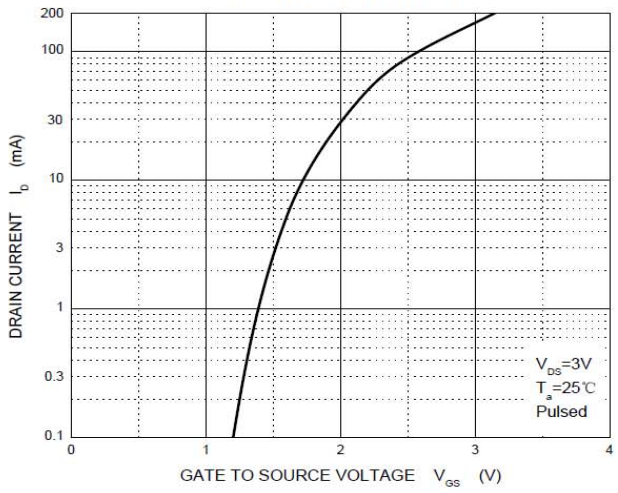
Note:
1. These parameters have no way to verify.

CHARACTERISTIC CURVES

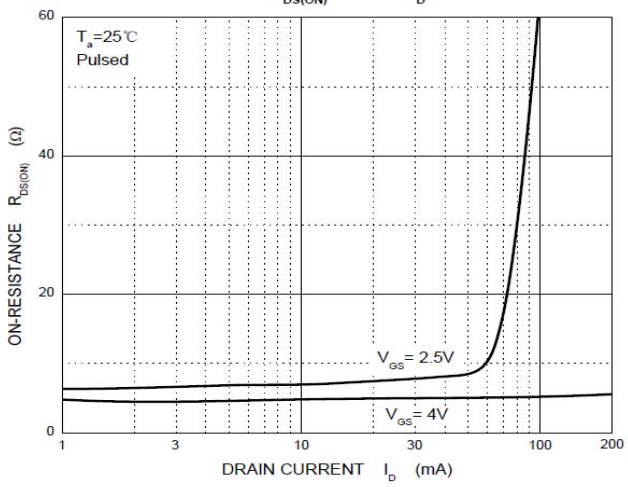
Output Characteristics



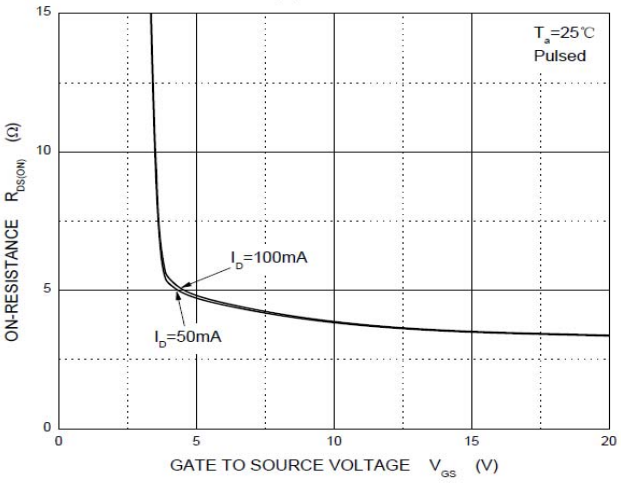
Transfer Characteristics



$R_{DS(ON)}$ —— I_D



$R_{DS(ON)}$ —— V_{GS}



I_S —— V_{SD}