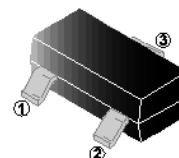


RoHS Compliant Product
A Suffix of "-C" specifies halogen & lead-free

DESCRIPTION

- Low On-Resistance
- Fast Switching Speed
- Easily Designed Drive Circuits
- Easy to Parallel

SOT-323



FEATURES

- Simple drive requirement
- Small package outline

MARKING

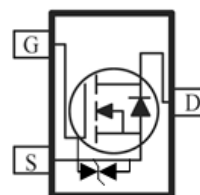
KN

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-323	3K	7 inch

ORDER INFORMATION

Part Number	Type
SSK3018K-C	Lead (Pb)-free and Halogen-free



ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ 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	P_D	200	mW
Thermal Resistance from Junction-Ambient	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Operating Junction & Storage Temperature Range	T_J, T_{STG}	-55~150	$^\circ\text{C}$

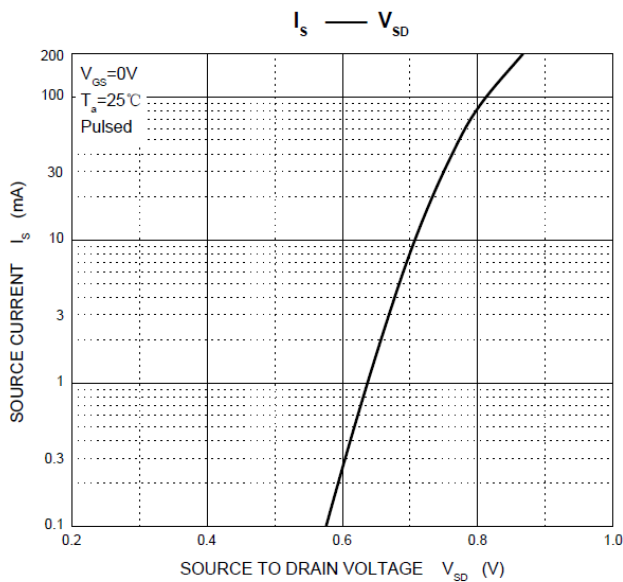
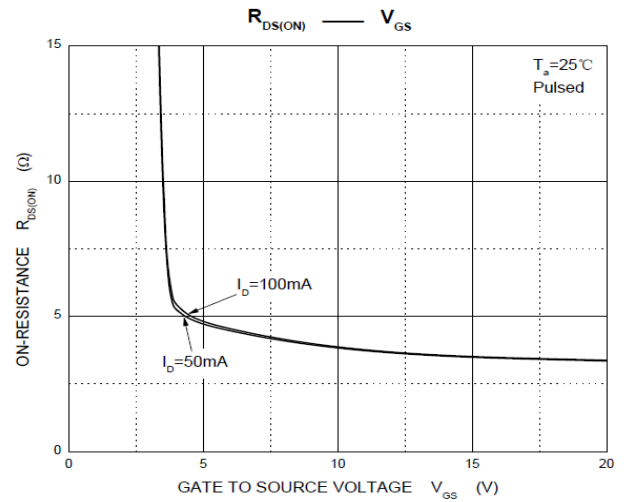
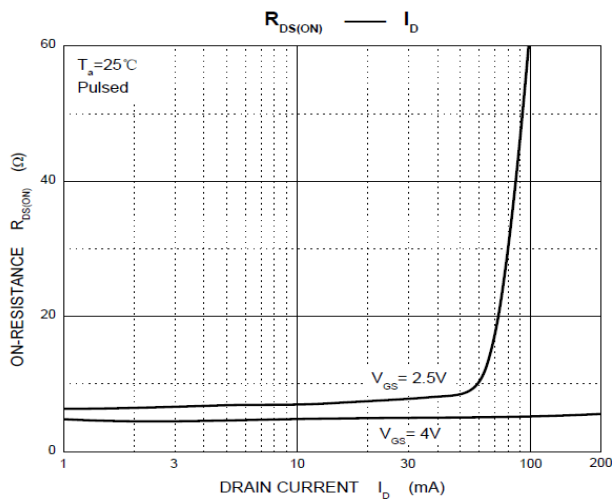
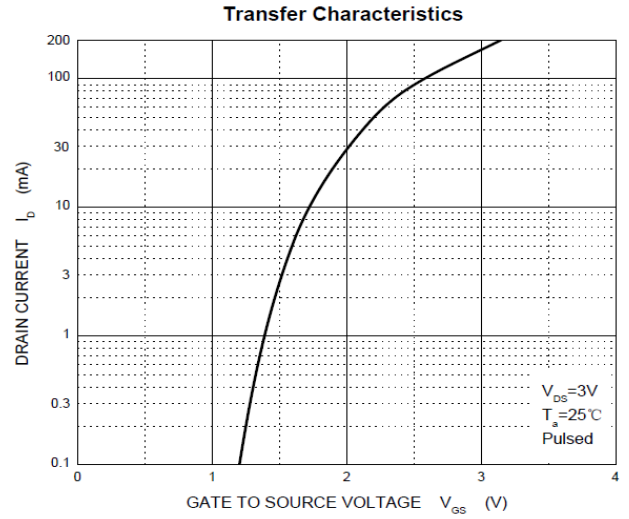
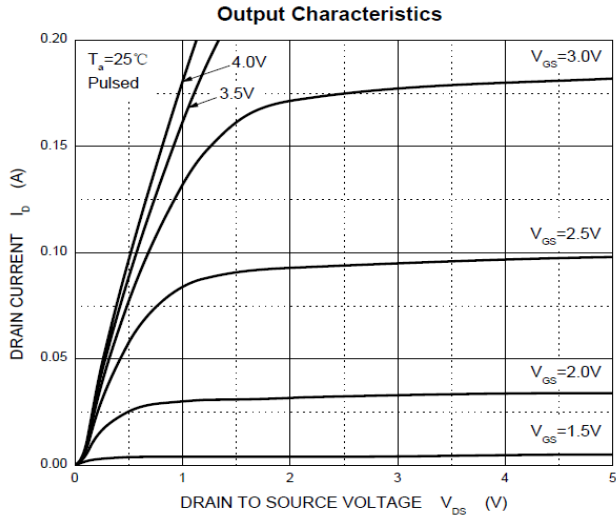
ELECTRICAL CHARACTERISTICS ($T_J=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Off Characteristics						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	30	-	-	V	$V_{GS}=0, I_D=10\mu\text{A}$
Gate-Threshold Voltage	$V_{GS(TH)}$	0.8	-	1.5	V	$V_{DS}=3\text{V}, I_D=100\mu\text{A}$
Gate-Source Leakage Current	I_{GSS}	-	-	± 2	μA	$V_{GS}=\pm 20\text{V}, V_{DS}=0$
Drain-Source Leakage Current	I_{DSS}	-	-	0.2	μA	$V_{DS}=30\text{V}, V_{GS}=0$
Static Drain-Source On-Resistance	$R_{DS(ON)}$	-	-	8	Ω	$V_{GS}=4\text{V}, I_D=10\text{mA}$
		-	-	13		$V_{GS}=2.5\text{V}, I_D=1\text{mA}$
Forward Transconductance	g_{fs}	20	-	-	ms	$V_{DS}=3\text{V}, I_D=10\text{mA}$
Dynamic Characteristics¹						
Input Capacitance	C_{ISS}	-	13	-	pF	$V_{DS}=5\text{V}$ $V_{GS}=0$ $f=1\text{MHz}$
Output Capacitance	C_{OSS}	-	9	-		
Reverse Transfer Capacitance	C_{RSS}	-	4	-		
Switching Characteristics¹						
Turn-on Delay Time	$t_{d(on)}$	-	15	-	nS	$V_{GS}=5\text{V}$ $V_{DD}=5\text{V}$ $I_D=10\text{mA}$ $R_L=500\Omega$ $R_G=10\Omega$
Rise Time	t_r	-	35	-		
Turn-off Delay Time	$t_{d(off)}$	-	80	-		
Fall Time	t_f	-	80	-		

Note:

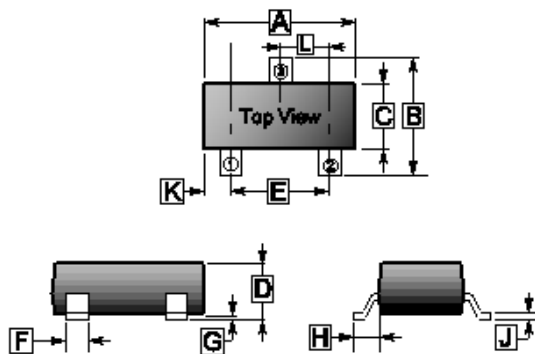
1. These parameters have no way to verify.

TYPICAL CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS

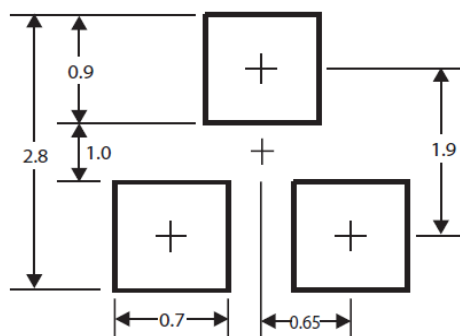
SOT-323



REF.	Millimeter	
	Min.	Max.
A	1.80	2.20
B	1.80	2.55
C	1.10	1.40
D	0.80	1.15
E	1.20	2.00
F	0.15	0.50
G	0.10 REF.	
H	0.525 REF.	
J	0.05	0.25
K	0.35 REF.	
L	0.65 TYP.	

MOUNTING PAD LAYOUT

SOT-323



*Dimensions in millimeters