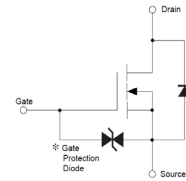




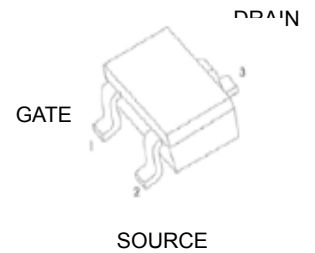
2SK3019W Plastic-Encapsulate MOSFETS

$V_{(BR)DSS}$	$R_{DS(on)MAX}$	I_D
30V	8Ω@4V	100mA
	13Ω@2.5V	



FEATURE

- Low on-resistance
- Fast switching speed
- Low voltage drive makes this device ideal for Portable equipment
- Easily designed drive circuits
- Easy to parallel



SOT-323

Marking: KN

MOSFET MAXIMUM RATINGS (Ta = 25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{DS}	Drain-Source Voltage	30	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Continuous Drain Current	0.1	A
$R_{\theta JA}$	Thermal Resistance, Junction-to-Ambient	833	°C/W
P_D	Power Dissipation	0.15	W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55~+150	°C



MOSFET ELECTRICAL CHARACTERISTICS

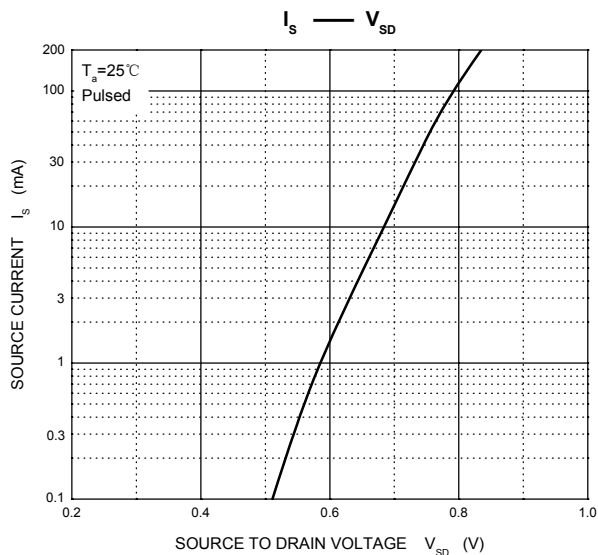
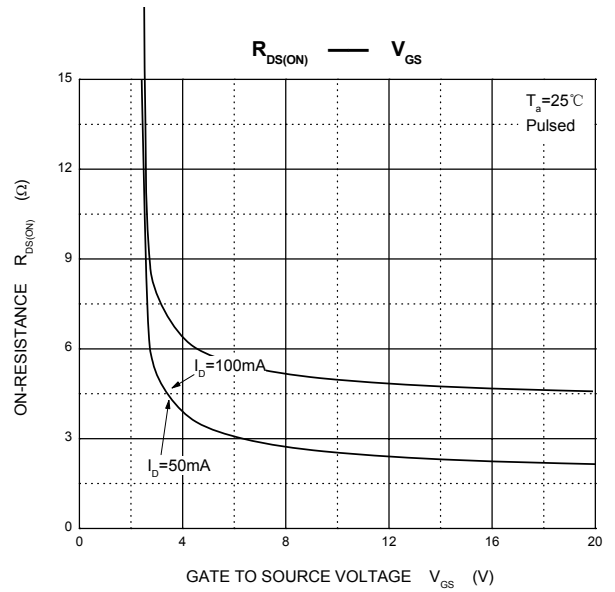
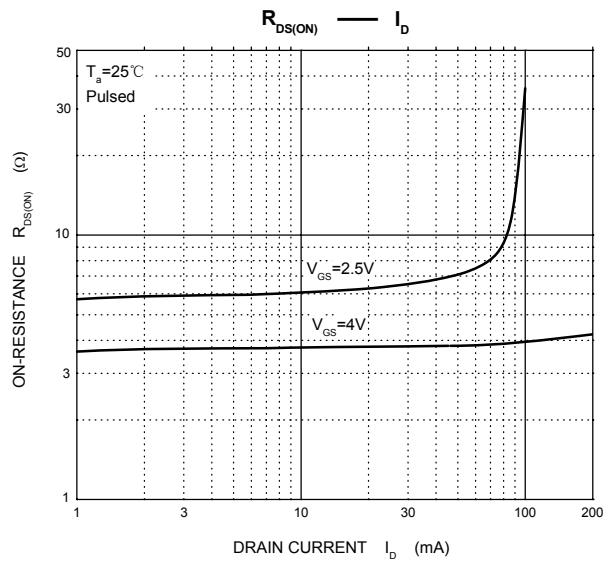
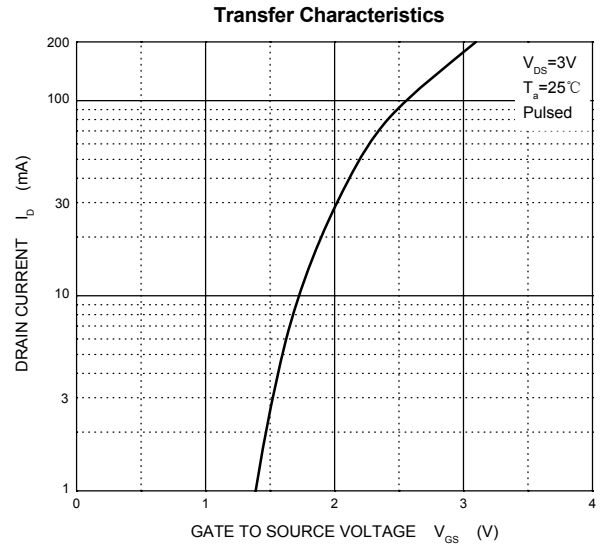
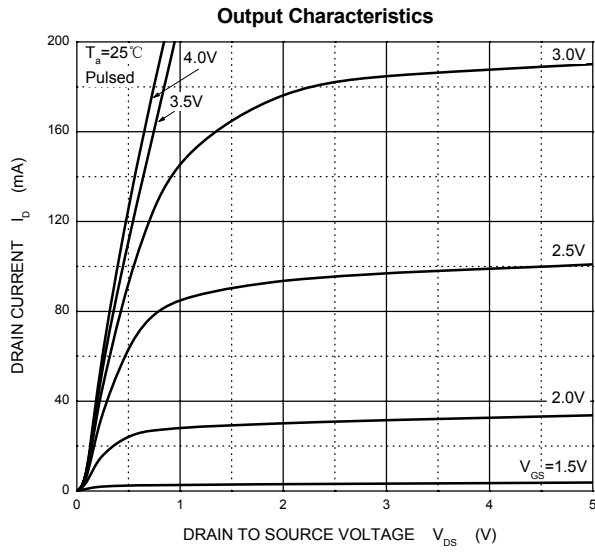
$T_a=25^{\circ}\text{C}$ unless otherwise specified

Parameter	Symbol	Test Condition	Min	Typ	Max	Units	
Off Characteristics							
Drain-Source Breakdown Voltage	V_{DS}	$V_{GS} = 0V, I_D = 10\mu A$	30			V	
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 30V, V_{GS} = 0V$			1	μA	
Gate -Source leakage current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			± 2	μA	
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = 3V, I_D = 100\mu A$	0.8		1.5	V	
Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = 4V, I_D = 10mA$			8	Ω	
		$V_{GS} = 2.5V, I_D = 1mA$			13	Ω	
Forward Transconductance	g_{FS}	$V_{DS} = 3V, I_D = 10mA$	20			mS	
Dynamic Characteristics*							
Input Capacitance	C_{iss}	$V_{DS} = 5V, V_{GS} = 0V, f = 1MHz$		13		pF	
Output Capacitance	C_{oss}				9		pF
Reverse Transfer Capacitance	C_{rss}				4		pF
Switching Characteristics*							
Turn-On Delay Time	$t_{d(on)}$	$V_{GS} = 5V, V_{DD} = 5V,$ $I_D = 10mA, R_g = 10\Omega, R_L = 500\Omega,$		15		ns	
Rise Time	t_r				35		ns
Turn-Off Delay Time	$t_{d(off)}$				80		ns
Fall Time	t_f				80		ns

* These parameters have no way to verify.

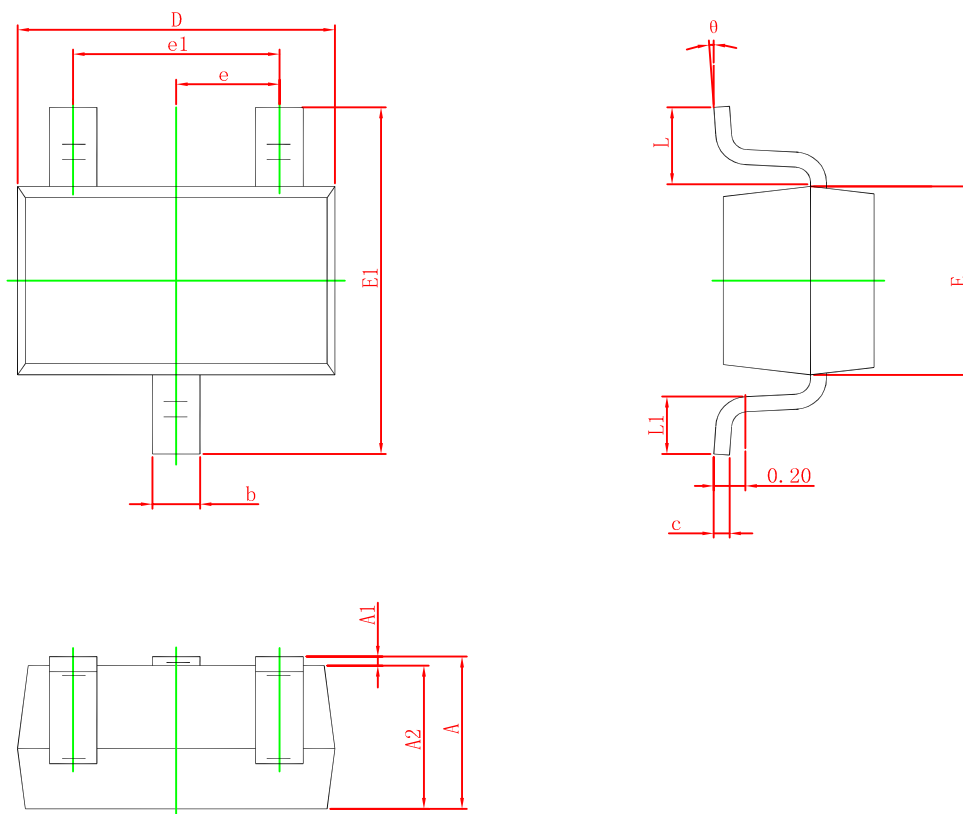


Typical Characteristics





SOT-323 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.525 REF.		0.021 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°