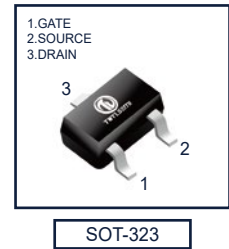


Description

The 2SK3018W uses advanced trench technology to provide excellent Rpsrom, low gate charge and operation with gate voltages as low as 4.5V. This device is suitable for use as a Battery protection or in other Switching application.

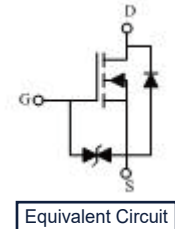
General Features

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



Applications

- Battery protection
- Load switch
- Uninterruptible power supply



Ordering information

Product ID	Pack	Naming rule	Marking	Qty(PCS)
2SK3018W	SOT-323	2SK3018W 封装标识 Packaging label 产品名称 product name	KN	3000

Absolute Maximum Ratings (TA=25℃ unless otherwise noted)

Symbol	Parameter	Rating	Units
V _{DSS}	Drain-Source voltage	30	V
V _{GSS}	Gate-Source Voltage	±20	V
I _D	Drain Current-Continuous	0.1	A
P _D	Power Dissipation	0.2	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C
R _{θJA}	Thermal Resistance from Junction to Ambient	625	°C/W

Electrical Characteristics (T_A=25℃, unless otherwise noted)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
OFF CHARACTERISTICS						
V _{(BR) DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V , I _D =10μA	30	---	---	V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =30V,V _{GS} = 0V	---	---	0.2	μA
I _{GSS}	Gate -Source leakage current	V _{GS} =±20V, V _{DS} =0V	---	---	±2	μA
V _{GS(th)}	GateThreshold Voltage	V _{DS} =3V, I _D =100μA	0.8	---	1.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =4V, I _D =10mA	---	---	8	Ω
		V _{GS} =2.5V, I _D =1mA	---	---	13	
g _{fs}	Forward Transconductance	V _{DS} =3V, I _D =10mA	20	---	---	mS
Dynamic Characteristics*						
C _{iss}	Input Capacitance	V _{DS} =5V,V _{GS} =0V,f=1MHz	---	13	---	pF
C _{oss}	Output Capacitance		---	9	---	
C _{rss}	Reverse Transfer Capacitance		---	4	---	
Switching Characteristics*						
T _{d(on)}	Turn-On Delay Time	V _{GS} =5V, V _{DD} =5V, I _D =10mA, R _g =10Ω, R _L =500Ω	---	15	---	ns
T _r	Rise Time		---	35	---	
T _{d(off)}	Turn-Off Delay Time		---	80	---	
T _f	Fall Time		---	80	---	

*These parameters have no way to verify



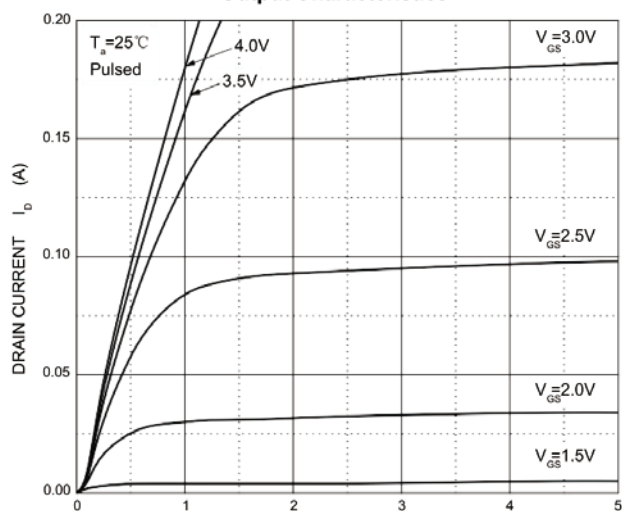
TWTLSEMI

TL-2SK3018W

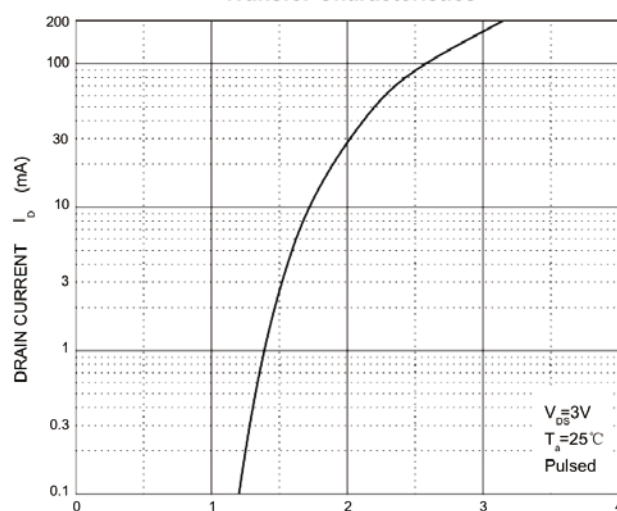
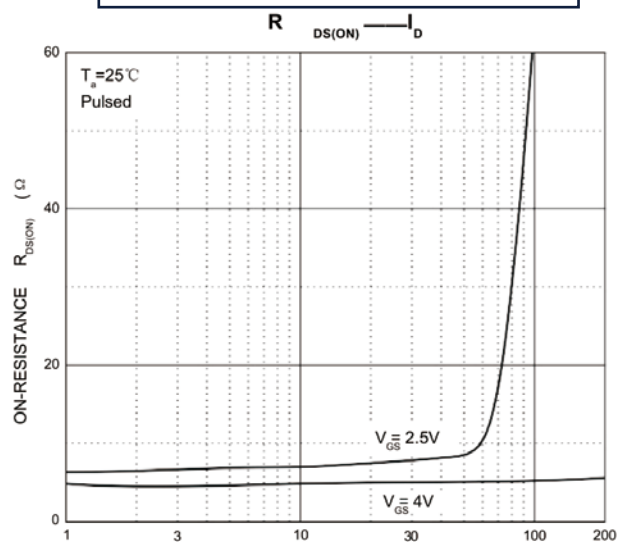
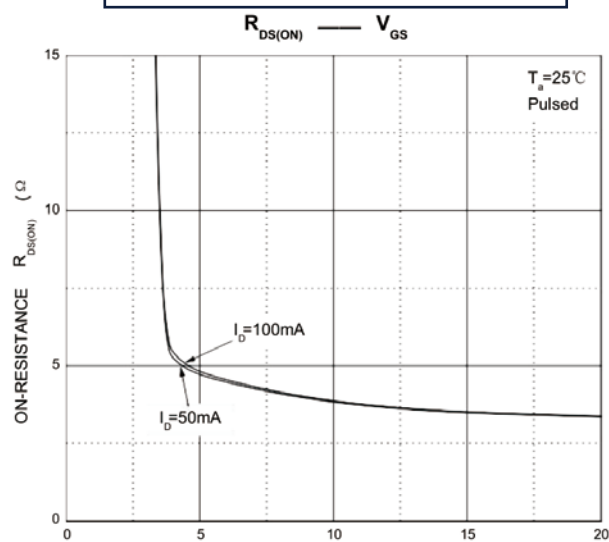
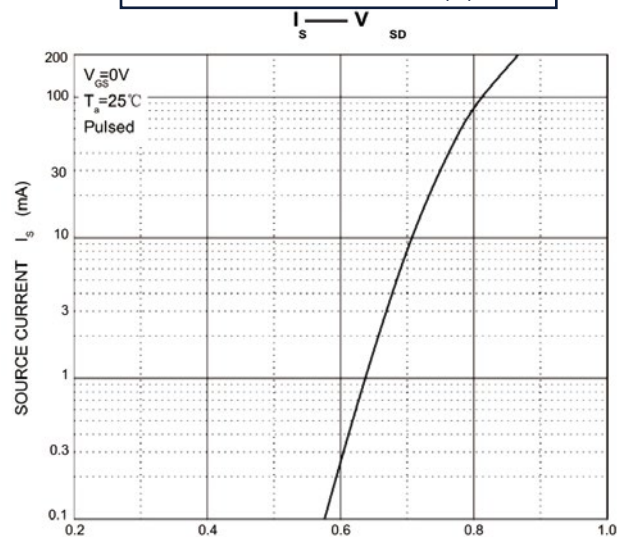
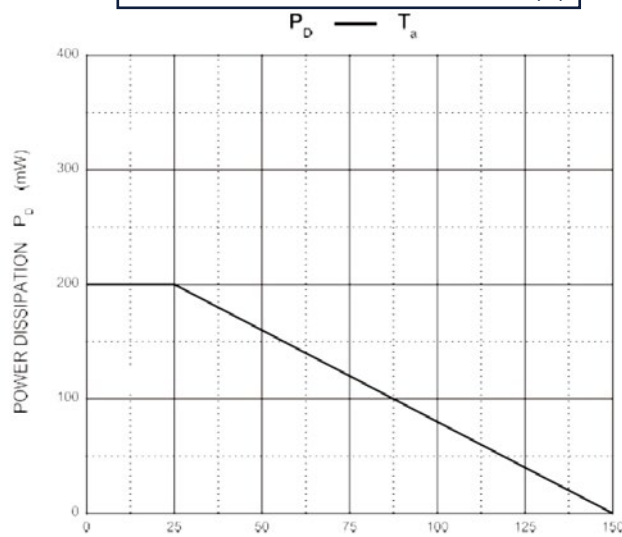
SOT-323 30V Plastic-Encapsulate MOSFETS

Typical Characteristics

Output Characteristics

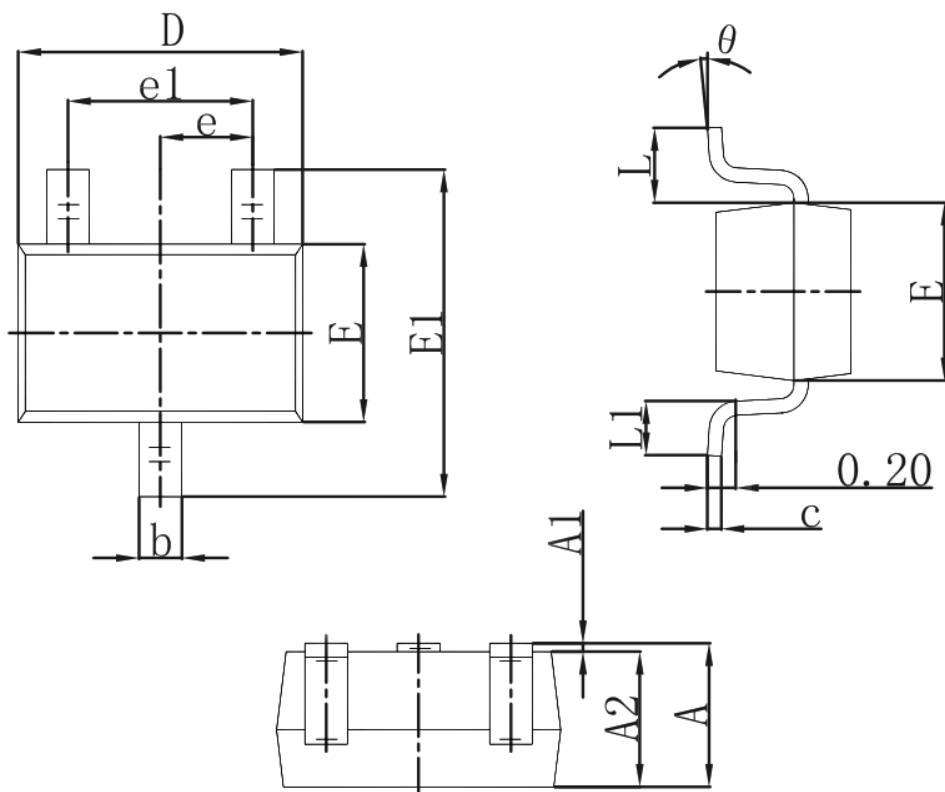
DRAIN TO SOURCE VOLTAGE V_{DS} (V)

Transfer Characteristics

GATE TO SOURCE VOLTAGE V_{GS} (V)DRAIN CURRENT I_D (A)GATE TO SOURCE VOLTAGE V_{GS} (V)SOURCE TO DRAIN VOLTAGE V_{SD} (V)JUNCTION TEMPERATURE T_J ($^\circ\text{C}$)



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	1.350	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°