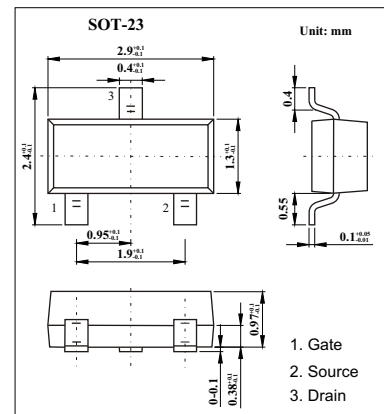
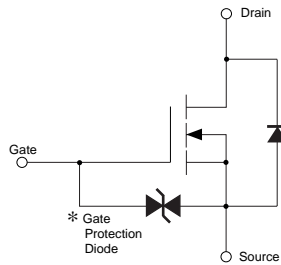


N-Channel MOSFET

2SK3018

Features

- Low on-resistance.
- Fast switching speed.
- Silicon N-channel MOSFET
- Drive circuits can be simple.



Absolute Maximum Ratings $T_a = 25$

Parameter	Symbol	Rating	Unit
Drain-source voltage	V_{DS}	30	V
Gate-source voltage	V_{GS}	± 20	V
Drain current	I_D	100	mA
	I_{DP}^{*1}	400	
Total power dissipation	P_D^{*2}	200	mW
Channel to ambient	$R_{th(ch-a)}^{*2}$	625	$^{\circ}C/W$
Channel Temperature	T_{ch}	150	
Storage temperature	T_{stg}	-55 to +150	

*1. $P_w = 10\mu s$, duty cycle 1%.

*2. With each pin mounted on the recommended lands.

2SK3018

Electrical Characteristics Ta = 25

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Gate-source leakage	I _{GSS}	V _{GS} = ± 20 V , V _{DS} = 0 V			±1	μA
Drain-source Breakdown voltage	V _{(BR)DSS}	I _D = 10 μA, V _{GS} = 0V	30			V
Zero gate voltage drain current	I _{DSS}	V _{DS} = 30 V, V _{GS} = 0V			1	μA
Gate threshold voltage	V _{GS(th)}	V _{DS} = 3 V, I _D = 100 μA	0.8		1.5	V
Static drain-source on-state resistance	R _{DS(on)}	I _D = 10 mA, V _{GS} = 4V I _D = 1mA, V _{GS} = 2.5V		5 7	8 13	
Forward transfer admittance	Y _{fs}	V _{DS} = 3 V, I _D = 10 mA	20			mS
Input capacitance	C _{iss}	V _{DS} = 5 V,		13		pF
Output capacitance	C _{oss}	V _{DS} = 0 V,		9		pF
Reverse transfer capacitance	C _{rss}	f = 1MHz		4		pF
Turn-on delay time	t _{d(on)}	I _D = 10 mA, V _{DD} = 5 V,		15		ns
Rise time	t _r	V _{GS} = 5 V,		35		ns
Turn-off time	t _{d(off)}	R _L = 500		80		ns
Fall time	t _f	R _G = 10		80		ns