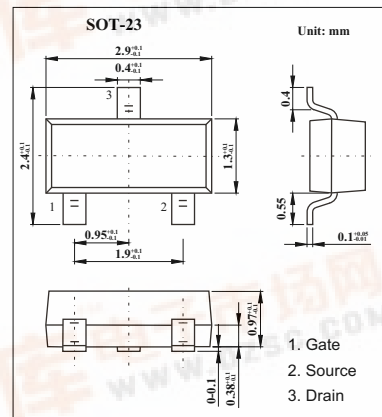
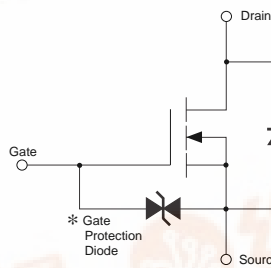


SMD Type MOSFET

N-Channel MOSFET
2SK3018

Features

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



Absolute Maximum Ratings Ta = 25

Parameter	Symbol	Rating	Unit
Drain-source voltage	V _{DSS}	30	V
Gate-source voltage	V _{GSS}	± 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	/W
Channel Temperature	T _{ch}	150	
Storage temperature	T _{stg}	-55 to +150	

*1. Pw 10μs, duty cycle 1%.

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

2SK3018

Electrical Characteristics Ta = 25

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Gate-source leakage	I_{GSS}	$V_{GS} = \pm 20 V, V_{DS} = 0 V$			± 1	μA
Drain-source Breakdown voltage	$V_{(BR)DSS}$	$I_D = 10 \mu A, V_{GS} = 0V$	30			V
Zero gate voltage drain current	I_{DSS}	$V_{DS} = 30 V, V_{GS} = 0V$			1	μA
Gate threshold voltage	$V_{GS(th)}$	$V_{DS} = 3 V, I_D = 100 \mu A$	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