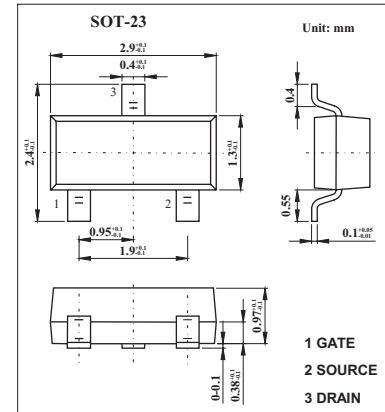


## MOS Field Effect Transistor

### 2SK1589

#### ■ Features

- Directly driven by Ics having a 5V power supply.
- Not necessary to consider driving current because of its high input impedance.



#### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Drain to source voltage	$V_{DS}$	100	V
Gate to source voltage	$V_{GS}$	$\pm 20$	V
Drain current (DC)	$I_D$	$\pm 100$	mA
Drain current(pulse) *	$I_D$	$\pm 200$	mA
Power dissipation	$P_D$	2.0	W
Channel temperature	$T_{ch}$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

\*  $PW \leq 10ms$ , duty cycle  $\leq 5\%$

#### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	$I_{DSS}$	$V_{DS}=100V, V_{GS}=0$			10	$\mu A$
Gate leakage current	$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0$			$\pm 1.0$	$\mu A$
Gate to source cutoff voltage	$V_{GS(off)}$	$V_{DS}=5V, I_D=1 \mu A$	0.8	1.5	1.8	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=5.0V, I_D=10mA$	20	38		ms
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=4.0V, I_D=10mA$		19	30	$\Omega$
		$V_{GS}=10V, I_D=10mA$		15	25	$\Omega$
Input capacitance	$C_{iss}$	$V_{DS}=5.0V, V_{GS}=0, f=1MHz$		16		pF
Output capacitance	$C_{oss}$			12		pF
Reverse transfer capacitance	$C_{rss}$			3		pF
Turn-on delay time	$t_{d(on)}$				17	
Rise time	$t_r$	$I_D=10mA, V_{GS(on)}=5.0V, R_L=500 \Omega, V_{DD}=5V, R_G=10 \Omega$		10		ns
Turn-off delay time	$t_{d(off)}$			68		ns
Fall time	$t_f$				38	

#### ■ Marking

Marking	G17
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