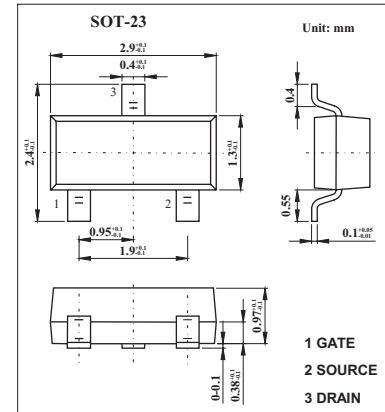


MOS Field Effect Transistor

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}	± 20	V
Drain current (DC)	I_D	± 100	mA
Drain current(pulse) *	I_D	± 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	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0$			± 1.0	μA
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	Ω
		$V_{GS}=10V, I_D=10mA$		15	25	Ω
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
---------	-----