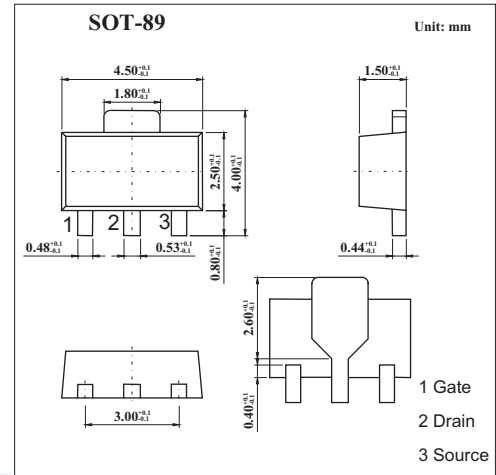


MOS Field Effect Transistor

2SK1273

■ Features

- Directly driver by Ics having a 5V power source.
- Has low on-satate resistance
 $R_{DS(on)}=1.00\ \Omega$ MAX.@ $V_{GS}=4.0V, I_D=0.5A$
 $R_{DS(on)}=0.65\ \Omega$ MAX.@ $V_{GS}=10V, I_D=0.5A$
- Not necessary to consider driving current because of its high input impedance.
- Possible to reduce the number of parts by omitting the biasresistor.



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	60	V
Gate to source voltage	V_{GS}	± 20	V
Drain current (DC)	I_D	± 2.0	A
Drain current(pulse) *	I_D	± 4.0	A
Power dissipation	P_D	2.0	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* $PW \leq 10\text{ms}$, duty cycle $\leq 50\%$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	$V_{DS}=60V, V_{GS}=0$			10	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0$			± 10	μA
Gate to source cutoff voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1\text{mA}$	1.0	1.7	2.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=0.5A$	0.4			s
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=4.0V, I_D=0.5A$		0.31	1.00	Ω
		$V_{GS}=10V, I_D=0.5A$		0.24	0.65	Ω
Input capacitance	C_{iss}	$V_{DS}=10V, V_{GS}=0, f=1\text{MHZ}$		220		pF
Output capacitance	C_{oss}			105		pF
Reverse transfer capacitance	C_{rss}			16		pF
Turn-on delay time	$t_{d(on)}$				15	
Rise time	t_r	$I_D=0.5A, V_{GS(on)}=10V, R_L=50\ \Omega, V_{DD}=25V, R_G=10\ \Omega$		35		ns
Turn-off delay time	$t_{d(off)}$			380		ns
Fall time	t_f			120		ns

■ Marking

Marking	NA