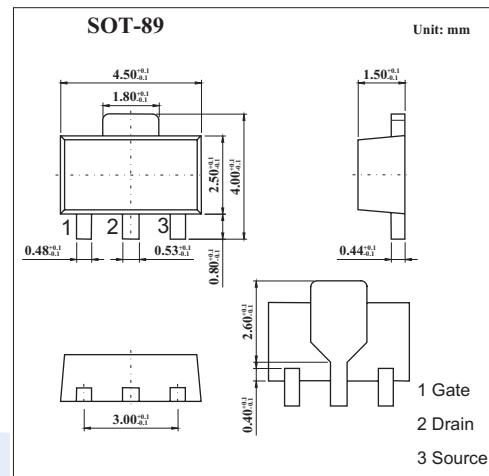
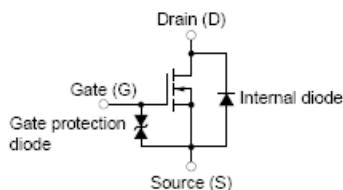


MOS Field Effect Transistor

2SK2109

■ Features

- Low on-resistance
- $R_{DS(on)}=1.0 \Omega$ MAX. @ $V_{GS}=4.0V, I_D=0.3A$
- High switching speed



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	60	V
Gate to source voltage	V_{GSS}	± 20	V
Drain current	I_D	± 0.5	A
	I_{Dp}	± 1.0	A
Power dissipation	P_D	20	W
Channel temperature	T_{ch}	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	$V_{DS}=60V, V_{GS}=0$			1.0	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0$			± 10	nA
Gate threshold voltage	$V_{GS(th)}$	$V_{DS}=10V, I_D=1mA$	0.8	1.5	2.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=0.3A$	0.4			S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=4.0V, I_D=0.3A$		0.55	1.0	Ω
		$V_{GS}=10V, I_D=0.3A$		0.41	0.8	Ω
Input capacitance	C_{iss}			111		pF
Output capacitance	C_{oss}	$V_{DS}=10V, V_{GS}=0, f=1MHz$		55		pF
Reverse transfer capacitance	C_{rss}			19		pF
Turn-on delay time	$t_{d(on)}$			2.2		ns
Rise time	t_r	$I_D=0.3A, V_{GS(on)}=10V, R_L=83\Omega, R_G=10\Omega, V_{DD}=25V$		1.5		ns
Turn-off delay time	$t_{d(off)}$			35		ns
Fall time	t_f			19		ns

■ Marking

Marking	NS
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