

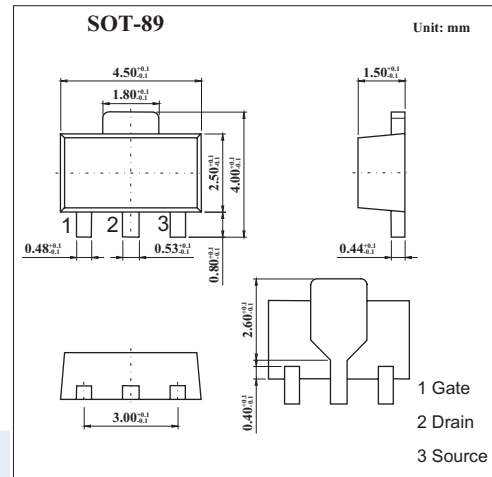
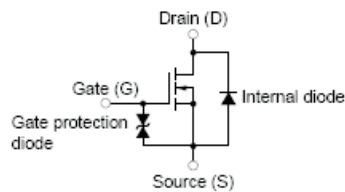
MOS Field Effect Transistor 2SK2109

■ Features

- Low on-resistance

$R_{DS(on)}=1.0\ \Omega\ \text{MAX.}@V_{GS}=4.0V, I_D=0.3A$

- High switching speed



■ 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	I_D	± 0.5	A
	I_{DP}	± 1.0	A
Power dissipation	P_D	20	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	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}	$V_{DS}=10V, V_{GS}=0, f=1\text{MHz}$		111		pF	
Output capacitance	C_{oss}			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