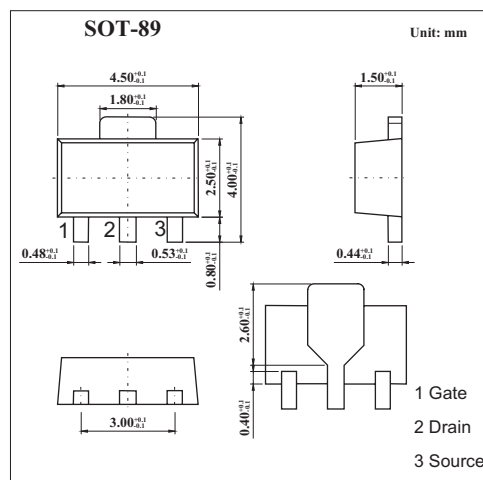
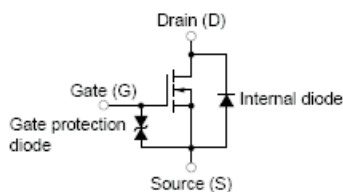


# 2SK2109

### ■ 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	$V_{GS}$	$\pm 20$	V
Drain current	$I_D$	$\pm 0.5$	A
	$I_{DP}$	$\pm 1.0$	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	$\mu\text{A}$
Gate leakage current	$I_{GSS}$	$V_{GS} = \pm 20V, V_{DS} = 0$			$\pm 10$	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	$\Omega$
		$V_{GS} = 10V, I_D = 0.3A$		0.41	0.8	$\Omega$
Input capacitance	$C_{iss}$	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		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
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