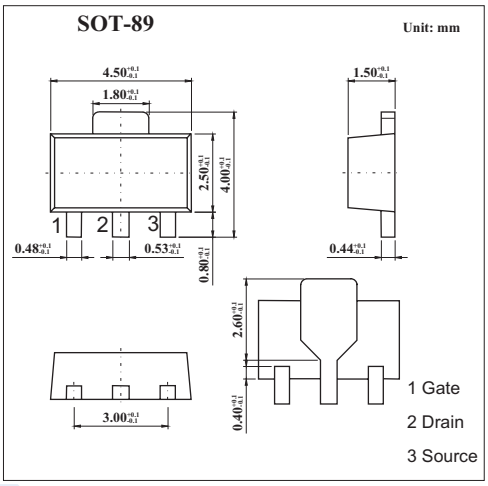
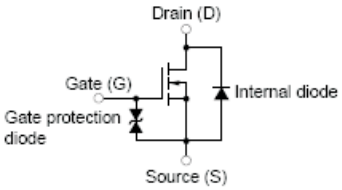
MOS Field Effect Transistor
2SK2109



■ Features

- Low on-resistance

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



■ Absolute Maximum Ratings Ta = 25℃

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	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

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}=±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=1MHZ		111		pF
Output capacitance	C_{oss}			55		pF
Reverse transfer capacitance	C_{rss}			19		pF
Turn-on delay time	$t_{d(on)}$	I_D=0.3A,$V_{GS(on)}$=10V,R_L=83Ω,R_G=10Ω,V_{DD}=25V		2.2		ns
Rise time	tr			1.5		ns
Turn-off delay time	$t_{d(off)}$			35		ns
Fall time	tf			19		ns

■ Marking

Marking	NS