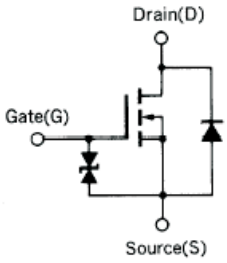
MOS Field Effect Transistor
2SK680A

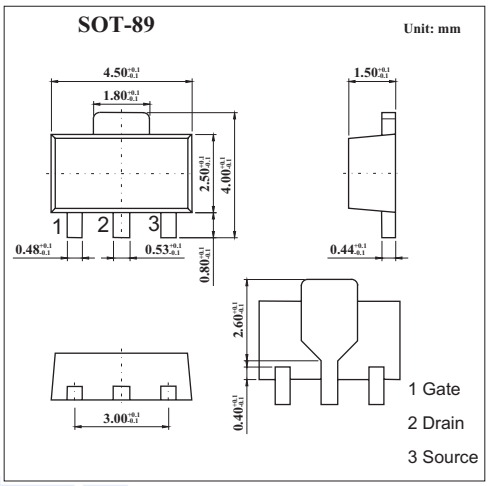
Features

- Directly driven by Ics having a 5V power source.
- Not necessary to consider driving current because of its high input impeance.
- Has low on-state resistance

$R_{DS(on)}$=1.0ΩMAX. @V_{GS}=4.0V,I_D=0.5A

$R_{DS(on)}$=0.70ΩMAX. @V_{GS}=10V,I_D=0.5A





Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	30	V
Gate to source voltage	V_{GSS}	±20	V
Drain current	I_D	±1.0	A
	I_{dp} *	±2.0	A
Power dissipation	P_D	2.0	W
Channel temperature	T_{ch}	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* PW≤10μs,Duty Cycle≤1%

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	V_{DS}=30V,V_{GS}=0			10	μA
Gate leakage current	I_{GSS}	V_{GS}=±20V,V_{DS}=0			±10	μA
Gate cut off voltage	$V_{GS(off)}$	V_{DS}=10V,I_D=1mA	1.0	1.6	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}=4V,I_D=0.5A		0.6	1.0	Ω
	$R_{DS(on)}$	V_{GS}=10V,I_D=0.5A		0.4	0.7	Ω
Input capacitance	C_{iss}	V_{DS}=5.0V,V_{GS}=0,f=1MHZ		130		pF
Output capacitance	C_{oss}			70		pF
Reverse transfer capacitance	C_{rss}			30		pF
Turn-on delay time	t_{on}	I_D=0.5A,$V_{GS(on)}$=10V,R_G=10Ω,V_{DD}=25V,R_L=50Ω		12		ns
Rise time	t_r			44		ns
Turn-off delay time	t_{off}			310		ns
Fall time	tf			160		ns