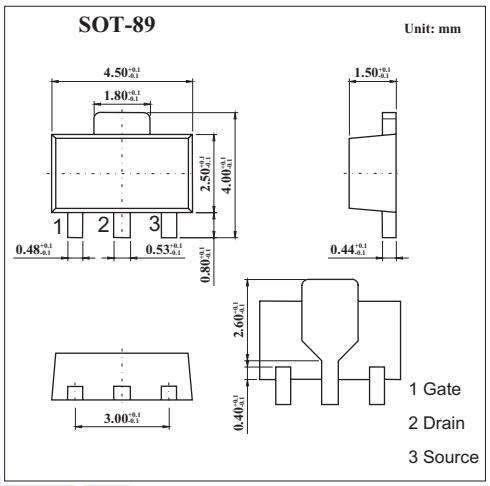
MOS Field Effect Transistor

2SK1588



Features

- Directly driven by Ics having a 3V power supply.
- Has low on-state resistance

  $R_{DS(on)}$=0.5Ω MAX.@V_{GS}=2.5V,I_D=1.0A

  $R_{DS(on)}$=0.3Ω MAX.@V_{GS}=4.0V,I_D=1.5A

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	16	V
Gate to source voltage	V_{GSS}	±16	V
Drain current (DC)	I_D	±3.0	A
Drain current(pulse) *	I_D	±6.0	A
Power dissipation	P_D	2.0	W
Channel temperature	T_{ch}	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* PW≤ 10ms, duty cycle ≤ 5%

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	V_{DS}=16V,V_{GS}=0			10	μA
Gate leakage current	I_{GSS}	V_{GS}=±16V,V_{DS}=0			±5.0	μA
Gate to source cutoff voltage	$V_{GS(off)}$	V_{DS}=5V,I_D=1mA	0.8	1.0	1.6	V
Forward transfer admittance	$\lvert Y_{fs} \rvert$	V_{DS}=3V,I_D=1.0A	0.4	3.0		s
Drain to source on-state resistance	$R_{DS(on)}$	V_{GS}=2.5V,I_D=1.0A		0.25	0.5	Ω
		V_{GS}=4.0V,I_D=1.5A		0.17	0.3	Ω
Input capacitance	C_{iss}	V_{DS}=3.0V,V_{GS}=0,f=1MHZ		240		pF
Output capacitance	C_{oss}			250		pF
Reverse transfer capacitance	C_{rss}			60		pF
Turn-on delay time	$t_{d(on)}$	I_D=1.5A,$V_{GS(on)}$=3.0V,R_L=2Ω,V_{DD}=3V,R_G=10Ω		140		ns
Rise time	t_r			650		ns
Turn-off delay time	$t_{d(off)}$			120		ns
Fall time	t_f			160		ns

Marking

Marking	NG