

MOS Fied Effect Transistor

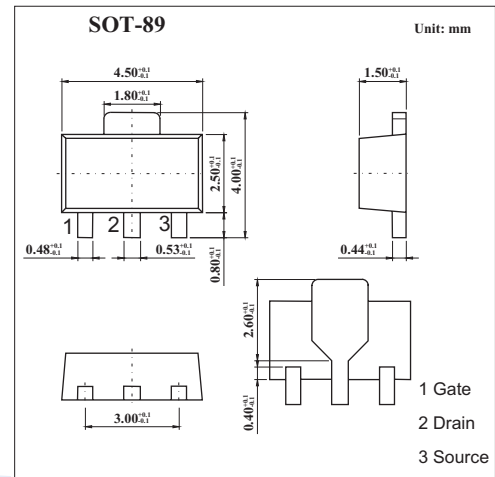
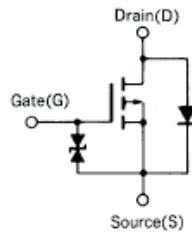
2SJ197

■ Features

- Directly driven by Ics having a 5V poer supply.
- Has low on-state resistance

$R_{DS(on)}=1.5\ \Omega$ MAX. @ $V_{GS}=-4.0V, I_D=-0.5A$

$R_{DS(on)}=1.0\ \Omega$ MAX. @ $V_{GS}=-10V, I_D=-0.5A$



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain to source voltage $V_{GS}=0$	V_{DSS}	-60	V
Gate to source voltage $V_{DS}=0$	V_{GSS}	± 20	V
Drain current (DC)	I_D	± 1.5	A
Drain current(pulse) *	I_D	± 3.0	A
Power dissipation	P_D	2.0	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* $PW \leq 10\text{ ms}$; $d \leq 50\%$.

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

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	$V_{DS}=-60V, V_{GS}=0$			-10	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0$			± 10	μA
Gate cut-off voltage	$V_{GS(off)}$	$V_{DS}=-10V, I_D=-1\text{mA}$	-1.0	-2.1	-3.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=-10V, I_D=-0.5A$	0.4	1.0		s
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=-4V, I_D=-0.5A$		0.9	1.5	Ω
		$V_{GS}=-10V, I_D=-0.5A$		0.5	1.0	Ω
Input capacitance	C_{iss}	$V_{DS}=-10V, V_{GS}=0, f=1\text{MHz}$		220		pF
Output capacitance	C_{oss}			125		pF
Reverse transfer capacitance	C_{rss}			17		pF
Turn-on delay time	$t_{d(on)}$			45		ns
Rise time	t_r	$V_{GS(on)}=-10V, R_G=10\ \Omega, V_{DD}=-25V, I_D=-0.5A, R_L=50\ \Omega$		70		ns
Turn-off delay time	$t_{d(off)}$			380		ns
Fall time	t_f			170		ns

■ Marking

Marking	PB
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