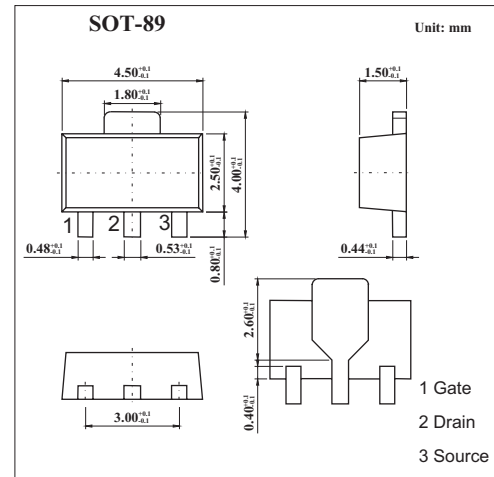


## MOS Fied Effect Transistor

### 2SJ179

#### ■ Features

- Directly driven by Ics having a 5V poer supply.
- Has low on-stage resistance  
 $R_{DS(on)}=1.5\ \Omega$  MAX.@ $V_{GS}=-4.0V, I_D=-0.5A$   
 $R_{DS(on)}=1.0\ \Omega$  MAX.@ $V_{GS}=-10V, I_D=-0.5A$
- Bidircetional Zener Diode for protection is incorporated between Gate and Source
- Inductive loads can be driven without protective circuit thanks to the and Source.



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

Parameter	Symbol	Rating	Unit
Drain to source voltage $V_{GS}=0$	$V_{DSS}$	-30	V
Gate to source voltage $V_{DS}=0$	$V_{GSS}$	$\pm 20$	V
Drain current (DC)	$I_D$	$\pm 1.5$	A
Drain current(pulse) *	$I_D$	$\pm 3.0$	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	$I_{DSS}$	$V_{DS}=-30V, V_{GS}=0$			-10	$\mu\text{A}$
Gate leakage current	$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0$			$\pm 1.0$	$\mu\text{A}$
Gate cut-off voltage	$V_{GS(off)}$	$V_{DS}=-10V, I_D=-1\text{mA}$	-1.0	-2.2	-3.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=-10V, I_D=-0.5A$	0.4			s
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=-4.0V, I_D=-0.5A$		0.8	1.5	$\Omega$
		$V_{GS}=-10V, I_D=-0.5A$		0.4	1.0	$\Omega$
Input capacitance	$C_{iss}$	$V_{DS}=-10V, V_{GS}=0, f=1\text{Mhz}$		210		pF
Output capacitance	$C_{oss}$			130		pF
Reverse transfer capacitance	$C_{rss}$			3		pF
Turn-on delay time	$t_{d(on)}$				35	
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	$t_f$			200		ns

#### ■ Marking

Marking	PA
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