

## MOS Fied Effect Transistor

### 2SJ199

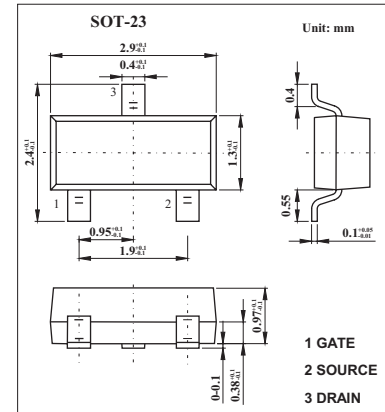
#### ■ Features

- Directly driven by ICs having a 5V poer supply.

- Has low on-state resistance

$R_{DS(on)}=2.5\ \Omega\ \text{MAX.}@V_{GS}=-4.0V, I_D=-0.5A$

$R_{DS(on)}=2.0\ \Omega\ \text{MAX.}@V_{GS}=-10V, I_D=-0.5A$



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

Parameter	Symbol	Rating	Unit
Drain to source voltage $V_{GS}=0$	$V_{DS}$	-100	V
Gate to source voltage $V_{DS}=0$	$V_{GS}$	$\pm 20$	V
Drain current (DC)	$I_D$	$\pm 1.0$	A
Drain current(pulse) *	$I_D$	$\pm 2.0$	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	$I_{DSS}$	$V_{DS}=-100V, V_{GS}=0$			-10	$\mu\text{A}$
Gate leakage current	$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0$			$\pm 10$	$\mu\text{A}$
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	0.9		s
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=-4V, I_D=-0.5A$		1.5	2.5	$\Omega$
		$V_{GS}=-10V, I_D=-0.5A$		1.1	2.0	$\Omega$
Input capacitance	$C_{iss}$	$V_{DS}=-10V, V_{GS}=0, f=1\text{MHZ}$		220		pF
Output capacitance	$C_{oss}$			85		pF
Reverse transfer capacitance	$C_{rss}$			8		pF
Turn-on delay time	$t_{d(on)}$				45	
Rise time	$t_r$	$V_{GS(on)}=-10V, R_G=10\ \Omega, V_{DD}=-25V, I_D=-0.5A, R_L=50\ \Omega$		36		ns
Turn-off delay time	$t_{d(off)}$			360		ns
Fall time	$t_f$			90		ns

#### ■ Marking

Marking	PC
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