

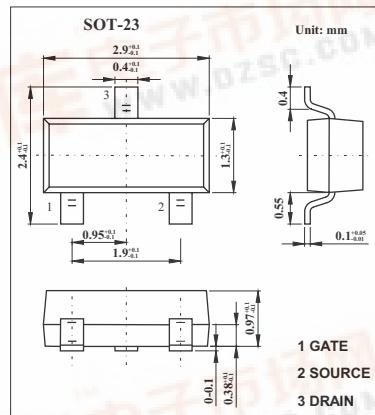
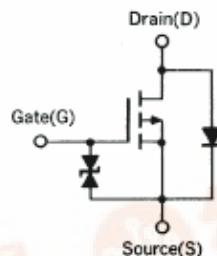
SMD Type

MOSFET

MOS Field Effect Transistor
2SJ166

■ Features

- Directly driven by I_{GS} having a 5V power supply.
- Not necessary to consider driving current because of its high input impedance.
- Possible to reduce the number of parts by omitting the bias resistor.

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

Parameter	Symbol	Rating	Unit
Drain to source voltage $V_{GS}=0$	V_{DSS}	-50	V
Gate to source voltage $V_{DS}=0$	V_{GSS}	± 7.0	V
Drain current (DC)	I_D	± 100	mA
Drain current(pulse) *	I_D	± 200	mA
Total power dissipation	P_T	200	mW
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	Testconditions	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	$V_{DS}=-50\text{V}, V_{GS}=0$			-10	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 7.0\text{V}, V_{DS}=0$			± 1.0	μA
Gate cut-off voltage	$V_{GS(off)}$	$V_{DS}=-5.0\text{V}, I_D=-1.0 \mu\text{A}$	-1.0	-2.1	-3.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=-5.0\text{V}, I_D=-20\text{mA}$	30	50		ms
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=-4.0\text{V}, I_D=-20\text{mA}$		18	50	Ω
Input capacitance	C_{iss}	$V_{DS}=-5.0\text{V}, V_{GS}=0, f=1\text{MHz}$		18		pF
Output capacitance	C_{oss}			11		pF
Reverse transfer capacitance	C_{rss}			3		pF
Turn-on delay time	$t_{d(on)}$	$V_{GS(on)}=-5.0\text{V}, R_G=10 \Omega, V_{DD}=-5.0\text{V}, I_D=-20\text{mA}, R_L=250 \Omega$		40		ns
Rise time	t_r			58		ns
Turn-off delay time	$t_{d(off)}$			62		ns
Fall time	t_f			62		ns

■ Marking

Marking	H11
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