

MOS Fied Effect Transistor

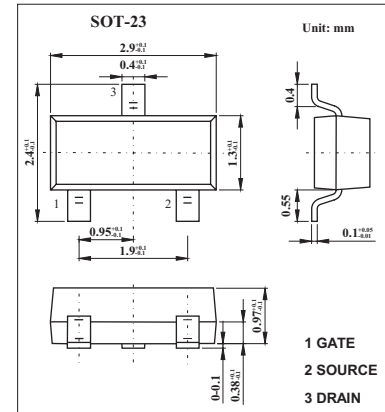
2SJ205

■ Features

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

$R_{DS(on)}=5\ \Omega\ \text{MAX.}@V_{GS}=-2.5V, I_D=-10\text{mA}$

$R_{DS(on)}=3\ \Omega\ \text{MAX.}@V_{GS}=-4V, I_D=-300\text{mA}$



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

| Parameter | Symbol | Rating | Unit |
|------------------------------------|-----------|-------------|------------------|
| Drain to source voltage $V_{GS}=0$ | V_{DSS} | -16 | V |
| Gate to source voltage $V_{DS}=0$ | V_{GSS} | ± 16 | V |
| Drain current (DC) | I_D | ± 500 | mA |
| Drain current(pulse) * | I_D | ± 1.0 | 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} | $V_{DS}=-16V, V_{GS}=0$ | | | -10 | μA |
| Gate leakage current | I_{GSS} | $V_{GS}=\pm 16V, V_{DS}=0$ | | | ± 5 | μA |
| Gate cut-off voltage | $V_{GS(off)}$ | $V_{DS}=-5.0V, I_D=-10\ \mu\text{A}$ | -1.4 | -1.9 | -2.4 | V |
| Forward transfer admittance | $ Y_{fs} $ | $V_{DS}=-3.0V, I_D=-0.3A$ | 0.4 | 0.5 | | s |
| Drain to source on-state resistance | $R_{DS(on)}$ | $V_{GS}=-2.5V, I_D=-10\text{mA}$ | | 3.0 | 5.0 | Ω |
| | | $V_{GS}=-4V, I_D=-0.3A$ | | 1.5 | 3.0 | Ω |
| Input capacitance | C_{iss} | $V_{DS}=-3.0V, V_{GS}=0, f=1\text{MHZ}$ | | 105 | | pF |
| Output capacitance | C_{oss} | | | 90 | | pF |
| Reverse transfer capacitance | C_{rss} | | | 15 | | pF |
| Turn-on delay time | $t_{d(on)}$ | $V_{GS(on)}=-3V, R_G=10\ \Omega, V_{DD}=-3V, I_D=-0.3A, R_L=10\ \Omega$ | | 185 | | ns |
| Rise time | t_r | | | 900 | | ns |
| Turn-off delay time | $t_{d(off)}$ | | | 40 | | ns |
| Fall time | t_f | | | 135 | | ns |

■ Marking

| | |
|---------|----|
| Marking | PD |
|---------|----|