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## 2SJ0674

## Silicon P-channel MOS FET

## For switching circuits

Features

- Low ON resistance $\mathrm{R}_{\text {on }}$
- High-speed switching
- SSSMini type package, allowing downsizing of the equipment and automatic insertion through the tape packing

Absolute Maximum Ratings $\mathrm{T}_{\mathrm{a}}=25^{\circ} \mathrm{C}$

| Parameter | Symbol | Rating | Unit |
| :--- | :---: | :---: | :---: |
| Drain-source surrender voltage | $\mathrm{V}_{\mathrm{DSS}}$ | -30 | V |
| Gate-source surrender voltage | $\mathrm{V}_{\mathrm{GSS}}$ | -12 | V |
| Drain current | $\mathrm{I}_{\mathrm{D}}$ | -100 | mA |
| Peak drain current | $\mathrm{I}_{\mathrm{DP}}$ | -200 | mA |
| Power dissipation | $\mathrm{P}_{\mathrm{D}}$ | 100 | mW |
| Channel temperature | $\mathrm{T}_{\text {Gh }}$ | 125 | ${ }^{\circ} \mathrm{C}$ |
| Storage temperature | $\mathrm{T}_{\text {stg }}$ | -55 to +125 | ${ }^{\circ} \mathrm{C}$ |

Electrical Characteristics $\mathrm{T}_{\mathrm{a}}=25^{\circ} \mathrm{C} \pm 3^{\circ} \mathrm{C}$

| Parameter | Symbol | 9 Conditions | Max | Unit |
| :---: | :---: | :---: | :---: | :---: |
| Drain-source surrender voltage | $\mathrm{V}_{\text {DSS }}$ | $\begin{aligned} & \mathrm{I}_{\mathrm{D}}=-10 \mathrm{AA}, \mathrm{~V}_{\mathrm{GS}}=0 \\ & \mathrm{~V}_{\mathrm{DS}}=-20 \mathrm{~V} \mathrm{~V}_{\mathrm{GS}}=0 \\ & \mathrm{~V}_{\mathrm{GS}}=+10 \mathrm{~V}, \mathrm{~V}_{\mathrm{DS}}=0 \end{aligned}$ |  | V |
| Drain-source cutoff current | I ${ }_{\text {DSS }}$ |  | $-1.0$ | $\mu \mathrm{A}$ |
| Gate-source cutoff current | $\mathrm{I}_{\text {GSS }}$ |  | $\pm 10$ | $\mu \mathrm{A}$ |
| Gate threshold voltage | Var | $\mathrm{I}_{\mathrm{D}}=-1.0 \mu \mathrm{~A}, \mathrm{~V}_{\mathrm{DS}}=-3.0 \mathrm{~V}$ | -1.5 | V |
|  |  | $\mathrm{S}_{\mathrm{D}}=-10 \mathrm{~mA}, \mathrm{VGS}=-2.5 \mathrm{~V}$ | 30 | $\Omega$ |
|  | $\mathrm{DS}^{\text {(on) }}$ | $\mathrm{I}_{\mathrm{D}}=-10 \mathrm{~mA}, \mathrm{~V}_{\mathrm{GS}}=-4.0$ | 18 |  |
| Forward transfer admittance | $\left\|\mathrm{Y}_{\mathrm{fs}}\right\|$ | $\mathrm{I}_{\mathrm{D}}=-10 \mathrm{~mA}, \mathrm{~V}_{\mathrm{DS}}=-3 \mathrm{~V}, \mathrm{f}=1 \mathrm{kHz}$ |  | mS |
| Short-circuit input capacitance (Common source) | $\mathrm{C}_{\text {iss }}$ | $\mathrm{V}_{\mathrm{DS}}=-3 \mathrm{~V}, \mathrm{~V}_{\mathrm{GS}}=0, \mathrm{f}=1 \mathrm{MHz}$ |  | pF |
| Short-circuit output capacitance (Common source) | $\mathrm{C}_{\text {oss }}$ |  |  | pF |
| Reverse transfercapacitance (Common source) | $\mathrm{C}_{\mathrm{rss}}$ |  |  | pF |
| Turn-on time * | $\mathrm{t}_{\mathrm{on}}$ | $\mathrm{V}_{\mathrm{DD}}=-3 \mathrm{~V}, \mathrm{~V}_{\mathrm{GS}}=0 \mathrm{~V}$ to $-3 \mathrm{~V}, \mathrm{I}_{\mathrm{D}}=-10 \mathrm{~mA}$ |  | ns |
| Turn-off time * | $\mathrm{t}_{\text {off }}$ | $\mathrm{V}_{\mathrm{DD}}=-3 \mathrm{~V}, \mathrm{~V}_{\mathrm{GS}}=-3 \mathrm{~V}$ to $0 \mathrm{~V}, \mathrm{I}_{\mathrm{D}}=-10 \mathrm{~mA}$ |  | ns |

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. * : $\mathrm{t}_{\mathrm{on}}, \mathrm{t}_{\text {off }}$ measurement circuit




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