

2SK2593J

Silicon N-channel junction FET

For low-frequency amplification

For switching circuits

■ Features

- Low noise figure NF
- High gate-drain voltage (source open) V_{GDO}
- SS-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing.

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

| Parameter | Symbol | Rating | Unit |
|----------------------------------|-----------|-------------|------|
| Drain-source voltage | V_{DS} | 55 | V |
| Gate-drain voltage (Source open) | V_{GDO} | -55 | V |
| Gate-source voltage (Drain open) | V_{GSO} | -55 | V |
| Drain current | I_D | 30 | mA |
| Gate current | I_G | 10 | mA |
| Power dissipation | P_D | 125 | mW |
| Channel temperature | T_{ch} | 125 | °C |
| Storage temperature | T_{stg} | -55 to +125 | °C |

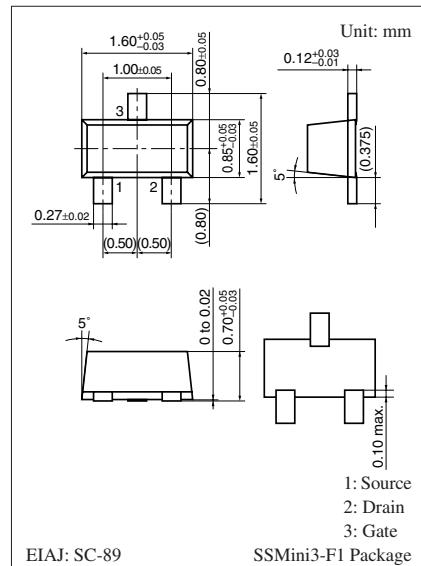
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|--|------------|--|-----|-----|-----|------|
| Gate-drain surrender voltage | V_{GDS} | $I_G = -100 \mu\text{A}$, $V_{DS} = 0$ | -55 | | | V |
| Drain-source cutoff current * | I_{DSS} | $V_{DS} = 10 \text{ V}$, $V_{GS} = 0$ | 1.0 | | 6.5 | mA |
| Gate-source cutoff current | I_{GSS} | $V_{GS} = -30 \text{ V}$, $V_{DS} = 0$ | | | -10 | nA |
| Gate-source cutoff voltage | V_{GSC} | $V_{DS} = 10 \text{ V}$, $I_D = 10 \mu\text{A}$ | | | -5 | V |
| Forward transfer admittance | $ Y_{fs} $ | $V_{DS} = 10 \text{ V}$, $I_D = 5 \text{ mA}$, $f = 1 \text{ kHz}$ | 2.5 | 7.5 | | mS |
| Short-circuit forward transfer capacitance (Common source) | C_{iss} | $V_{DS} = 10 \text{ V}$, $V_{GS} = 0$, $f = 1 \text{ MHz}$ | | 6.5 | | pF |
| Reverse transfer capacitance (Common source) | C_{rss} | | | 1.9 | | pF |
| Noise figure | NF | $V_{DS} = 10 \text{ V}$, $V_{GS} = 0$, $f = 100 \text{ Hz}$ $R_g = 100 \text{ k}\Omega$ | | 2.5 | | dB |

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Rank classification

| Rank | P | Q |
|----------------|------------|------------|
| I_{DSS} (mA) | 1.0 to 3.0 | 2.0 to 6.5 |



Marking Symbol: 2B

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