

# 2SK3064

## Silicon N-channel MOSFET

For switching circuit

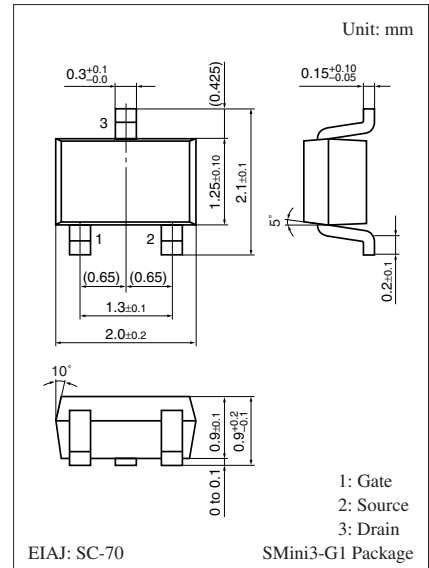
For rechargeable battery pack (Li<sup>+</sup> ion battery, etc.)

### ■ Features

- High gate-source voltage (Drain open)  $V_{GSO}$
- Low gate threshold voltage  $V_{th}$

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

| Parameter                        | Symbol    | Rating      | Unit             |
|----------------------------------|-----------|-------------|------------------|
| Drain-source surrender voltage   | $V_{DSS}$ | 30          | V                |
| Gate-source voltage (Drain open) | $V_{GSO}$ | $\pm 20$    | V                |
| Drain current                    | $I_D$     | 100         | mA               |
| Peak drain current               | $I_{DP}$  | 200         | mA               |
| Power dissipation                | $P_D$     | 150         | mW               |
| Channel temperature              | $T_{ch}$  | 150         | $^\circ\text{C}$ |
| Storage temperature              | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |



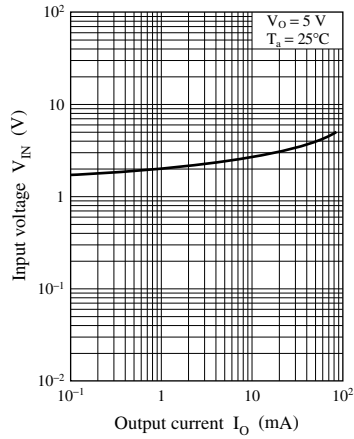
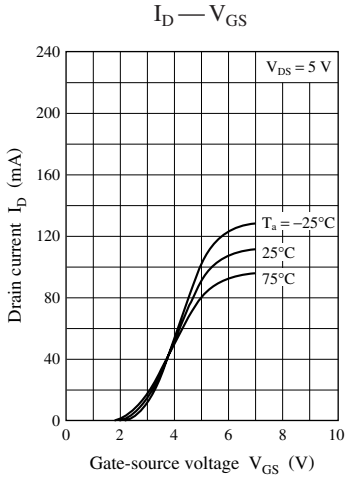
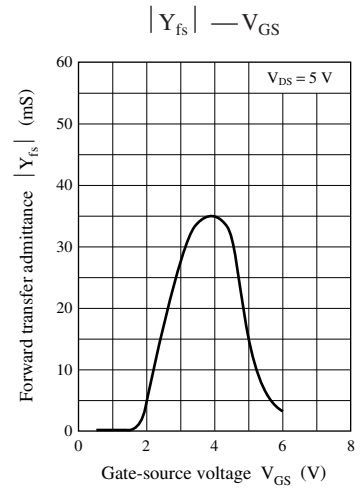
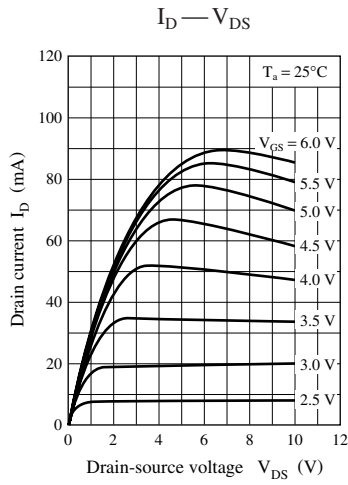
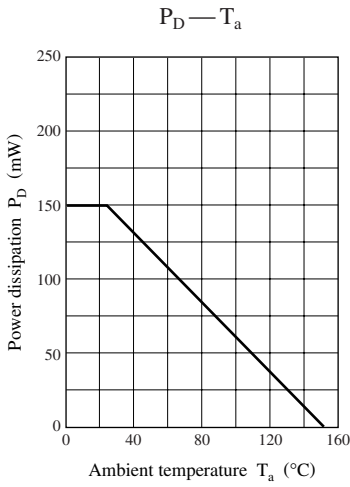
Marking symbol: 2D

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

| Parameter                   | Symbol     | Conditions   | Min | Typ | Max       | Unit          |
|-----------------------------|------------|--|-----|-----|-----------|---------------|
| Drain-source cutoff current | $I_{DSS}$  | $V_{DS} = 30\text{ V}, V_{GS} = 0\text{ V}$  |     |     | 0.1       | $\mu\text{A}$ |
| Gate-source cutoff current  | $I_{GSS}$  | $V_{GS} = \pm 20\text{ V}, V_{DS} = 0\text{ V}$  |     |     | $\pm 1.0$ | $\mu\text{A}$ |
| Gate threshold voltage      | $V_{th}$   | $V_{DS} = 5\text{ V}, I_D = 1\text{ }\mu\text{A}$                                      | 1.0 |     | 2.0       | V             |
| Forward transfer admittance | $ Y_{fs} $ | $V_{DS} = 5\text{ V}, I_D = 10\text{ mA}$  | 15  |     |           | mS            |
| ON resistance               | $R_{on}$   | $V_{GS} = 5\text{ V}, I_D = 10\text{ mA}$  |     | 30  | 50        | $\Omega$      |
| Turn-on time                | $t_{on}$   | $V_{DD} = 5\text{ V}, V_{GS} = 0\text{ V to } 5\text{ V}$<br>$R_L = 200\text{ }\Omega$ |     | 150 |           | ns            |
| Turn-off time               | $t_{off}$  | $V_{DD} = 5\text{ V}, V_{GS} = 5\text{ V to } 0\text{ V}$<br>$R_L = 200\text{ }\Omega$ |     | 35  |           | ns            |

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

2. Observe precautions for handling. Electrostatic sensitive devices.



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