

# ANTREX Electronics

## Electronic Components Sourcing Information

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### Product Reference Information

|                      |                                 |
|----------------------|---------------------------------|
| <b>Part Number:</b>  | 2SK1374G0L                      |
| <b>Manufacturer:</b> | Panasonic Electronic Components |
| <b>Package:</b>      | Please confirm with sales       |
| <b>Availability:</b> | Please confirm with sales       |

**Product Page:**

<https://antrexco.com/product/details/panasonic-electronic-components/2sk1374g0l.html>

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### Contact Information

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WhatsApp: +86-186-8066-5326

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New & Original Components

Supplier verification and packaging condition review

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Secure sourcing support for OEM / EMS projects

**Note:**

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.

# 2SK1374

## Silicon N-channel MOSFET

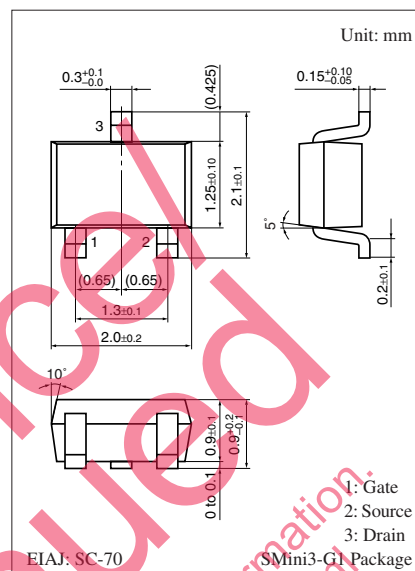
For switching circuits

### ■ Features

- High-speed switching
- Wide frequency band
- Incorporating a built-in gate protection-diode
- Allowing 2.5 V drive

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

| Parameter                        | Symbol    | Rating      | Unit             |
|----------------------------------|-----------|-------------|------------------|
| Drain-source voltage             | $V_{DS}$  | 50          | V                |
| Gate-source voltage (Drain open) | $V_{GSO}$ | 10          | V                |
| Drain current                    | $I_D$     | 50          | mA               |
| Peak drain current               | $I_{DP}$  | 100         | 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: 4V

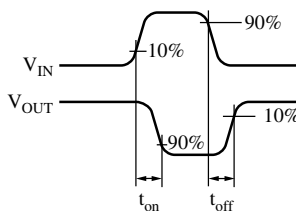
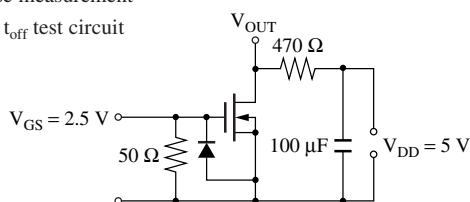
### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

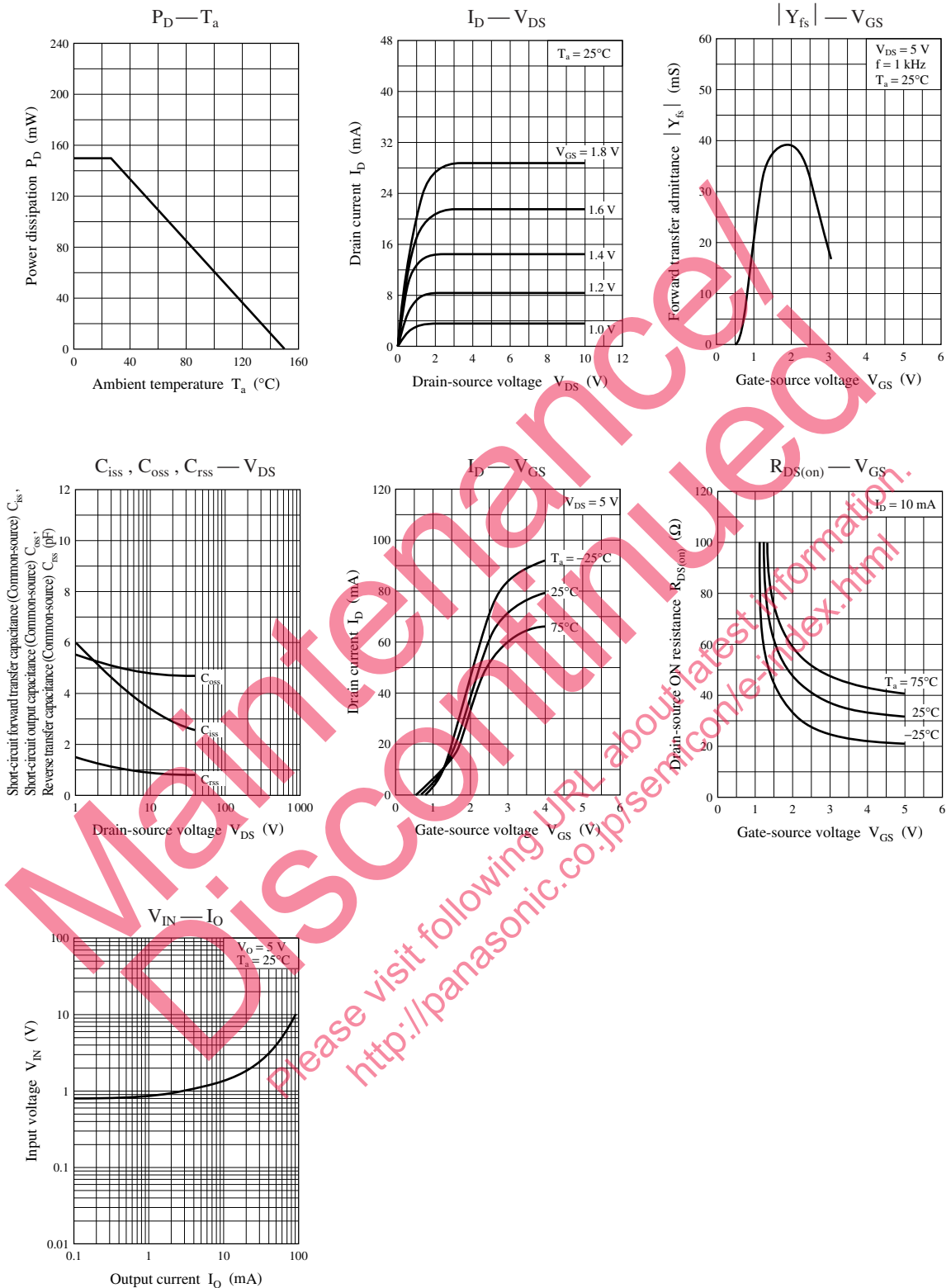
| Parameter                                                  | Symbol       | Conditions                                                                               | Min | Typ | Max | Unit          |
|------------------------------------------------------------|--------------|------------------------------------------------------------------------------------------|-----|-----|-----|---------------|
| Drain-source surrender voltage                             | $V_{DSS}$    | $I_D = 10\ \mu\text{A}$ , $V_{GS} = 0$                                                   | 50  | 100 |     | V             |
| Drain-source cutoff current                                | $I_{DSS}$    | $V_{DS} = 20\ \text{V}$ , $V_{GS} = 0$                                                   |     |     | 1.0 | $\mu\text{A}$ |
| Gate-source cutoff current                                 | $I_{GSS}$    | $V_{GS} = 10\ \text{V}$ , $V_{DS} = 0$                                                   |     |     | 1.0 | $\mu\text{A}$ |
| Gate threshold voltage                                     | $V_{th}$     | $I_D = 100\ \mu\text{A}$ , $V_{DS} = 5\ \text{V}$                                        | 0.5 | 0.8 | 1.1 | V             |
| Forward transfer admittance                                | $ Y_{fs} $   | $I_D = 10\ \text{mA}$ , $V_{DS} = 5\ \text{V}$ , $f = 1\ \text{kHz}$                     | 20  | 39  |     | mS            |
| Drain-source ON resistance                                 | $R_{DS(on)}$ | $I_D = 10\ \text{mA}$ , $V_{GS} = 2.5\ \text{V}$                                         |     | 27  | 50  | $\Omega$      |
| Short-circuit forward transfer capacitance (Common source) | $C_{iss}$    | $V_{DS} = 5\ \text{V}$ , $V_{GS} = 0$ , $f = 1\ \text{MHz}$                              |     | 4.5 |     | pF            |
| Short-circuit output capacitance (Common source)           | $C_{oss}$    |                                                                                          |     | 4.1 |     | pF            |
| Reverse transfer capacitance (Common source)               | $C_{rss}$    |                                                                                          |     | 1.2 |     | pF            |
| Turn-on time *1, 2                                         | $t_{on}$     | $V_{DD} = 5\ \text{V}$ , $R_L = 470\ \Omega$ , $V_{GS} = 0\ \text{V}$ to $2.5\ \text{V}$ |     | 0.2 |     | $\mu\text{s}$ |
| Turn-off time *1, 2                                        | $t_{off}$    | $V_{DD} = 5\ \text{V}$ , $R_L = 470\ \Omega$ , $V_{GS} = 2.5\ \text{V}$ to $0\ \text{V}$ |     | 0.2 |     | $\mu\text{s}$ |

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

2. \*1: Pulse measurement

\*2:  $t_{on}$ ,  $t_{off}$  test circuit





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