Ordering number:ENN4540

N-Channel Enhancement Silicon MOSFET

# 3SK248

## Muting/Switching Applications

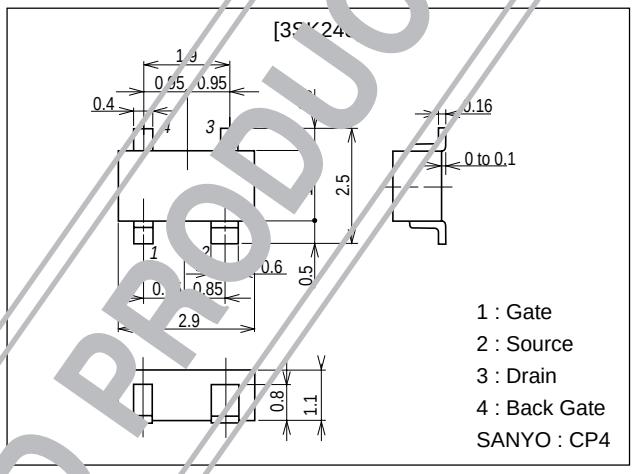
## Features

- MOSFET with a back gate terminal.
- Enhancement type.
- Small ON resistance.
- Small-sized package permitting 3SK248-applied sets to be made smaller and slimmer.

## Package Dimensions

unit:mm

2100A




## Specifications

### Absolute Maximum Ratings at Ta = 25˚C

| Parameter | Symbol | Conditions | Ratings | Unit |
|---|---|---|---|---|
| Drain-to-Source Voltage | $V_{DSS}$ | | 10 | V |
| Gate-to-Source Voltage | $V_{GSS}$ | | ±10 | V |
| Drain Current (DC) | $I_D$ | | 100 | mA |
| Allowable Power Dissipation | $P_D$ | | 200 | mW |
| Channel Temperature | Tch | | 125 | ˚C |
| Storage Temperature | Tstg | | –55 to +125 | ˚C |

### Electrical Characteristics at Ta = 25˚C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|---|---|---|---|---|---|
| | | | min | typ | max | |
| Drain-to-Source Breakdown Voltage | $V_{(BR)DSS}$ | $I_D$=10µA, $V_{GS}$=0V | 10 | | | V |
| Gate-to-Source Breakdown Voltage | $V_{GSS}$ | $I_G$=±10µA, $V_{DS}$=0V | ±10 | | | V |
| Zero-Gate Voltage Drain Current | $I_{DSS}$ | $V_{DS}$=5V, $V_{GS}$=0V | | | 1 | µA |
| Gate-to-Source Leakage Current | $I_{GSS}$ | $V_{GS}$=±8V, $V_{DS}$=0V | | ±0.01 | ±50 | nA |
| Cutoff Voltage | $V_{GS(off)}$ | $V_{DS}$=5V, $I_D$=100µA | 0.3 | | 1.5 | V |
| Forward Transfer Admittance | $\|yfs\|$ | $V_{DS}$=5V, $I_D$=50mA, f=1kHz | | 80 | | mS |
| Input Capacitance | Ciss | $V_{DS}$=5V, $V_{GS}$=0V, f=1MHz | | 50 | | pF |
| Output Capacitance | Coss | $V_{DS}$=5V, $V_{GS}$=0V, f=1MHz | | 10 | | pF |
| Reverse Transfer Capacitance | Crss | $V_{DS}$=5V, $V_{GS}$=0V, f=1MHz | | 5 | | pF |

Marking : N

Continued on next page.





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| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|---|---|---|---|---|---|
| | | | min | typ | max | |
| Static Drain-to-Source ON-State Resistance | $R_{DS(on)}1$ | $V_{GS}$=5V, $I_D$=50mA | | 5 | 7 | Ω |
| | $R_{DS(on)}2$ | $V_{GS}$=2.5V, $I_D$=15mA | | 7 | 12 | Ω |

## Electrical Connection