2SK0615 (2SK615)

Silicon N-Channel MOS FET

For switching

Features

- Low ON-resistance
- High-speed switching

Parameter

Allowable power dissipation

Drain to Source voltage

Gate to Source voltage

Drain current

Max drain current

Channel temperature Storage temperature

- Allowing to be driven directly by CMOS and TTL
- M type package, allowing easy automatic and manual insertion as well as stand-alone fixing to the printed circuit board.

Symbol

 V_{DS}

V_{GSO}

 I_D

 $\frac{I_{DP}}{P_D^*}$

 T_{ch}

T_{stg}

Ratings

80

20

±0.5

 ± 1

1

150

-55 to +150

| | Unit: mm |
|--|--|
| $\begin{array}{c} 6.9\pm0.1 \\ \hline 1.5 \\ \hline 1.5$ | 2.5±0.1 (1.0) (1.0 |

■ Absolute Maximum Ratings (Ta = 25°C)

| * PC board: | Copper foil of the drain portion should have a area of 1cm^2 or |
|-------------|---|
| | more and the board thickness should be 1.7mm. |

■ Electrical Characteristics (Ta = 25°C)

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|--|-----------------------------------|--------------------------------------|-----|-----|-----|------|
| Drain to Source cut-off current | I _{DSS} | $V_{DS} = 60V, V_{GS} = 0$ | | | 10 | μΑ |
| Gate to Source leakage current | I _{GSS} | $V_{GS} = 20V, V_{DS} = 0$ | | | 0.1 | μΑ |
| Drain to Source breakdown voltage | V _{DSS} | $I_{DS} = 100 \mu A, V_{GS} = 0$ | 80 | | | V |
| Gate threshold voltage | V _{th} | $I_D = 1mA, V_{DS} = V_{GS}$ | 1.5 | | 3.5 | V |
| Drain to Source ON-resistance | R _{DS(on)} ^{*1} | $I_D = 0.5A, V_{GS} = 10V$ | | 2 | 4 | Ω |
| Forward transfer admittance | Y _{fs} | $I_D = 0.2A, V_{DS} = 15V, f = 1kHz$ | | 300 | | mS |
| Input capacitance (Common Source) | C _{iss} | | | 45 | | pF |
| Output capacitance (Common Source) | C _{oss} | $V_{DS} = 10V, V_{GS} = 0, f = 1MHz$ | | 30 | | pF |
| Reverse transfer capacitance (Common Source) | C _{rss} | | | 8 | | pF |
| Turn-on time | t _{on} *1, 2 | | | 15 | | ns |
| Turn-off time | t _{off} *1, 2 | | | 20 | | ns |

Unit

V

V

А

А

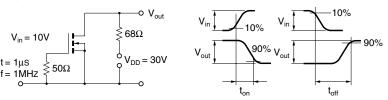
W

°C

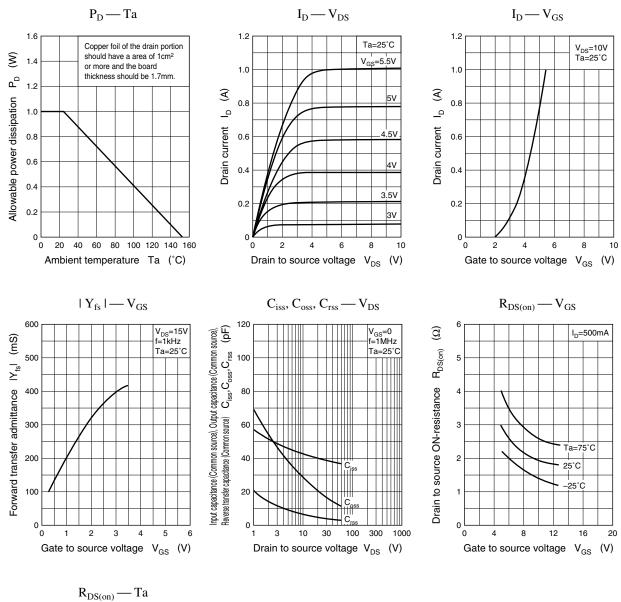
°C

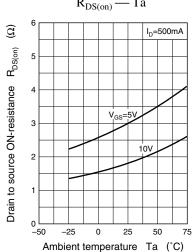
*1 Pulse measurement

^{*2} t_{on}, t_{off} measurement circuit



Note) The part number in the parenthesis shows conventional part number.





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