

SANYO

No.3771A

2SK1470

N-Channel MOS Silicon FET

Very High-Speed
Switching Applications**Features**

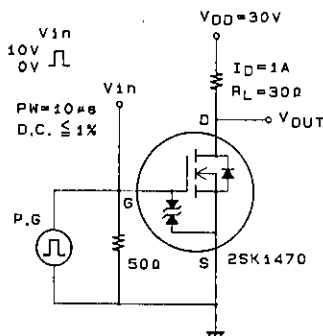
- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.

Absolute Maximum Ratings at Ta = 25°C

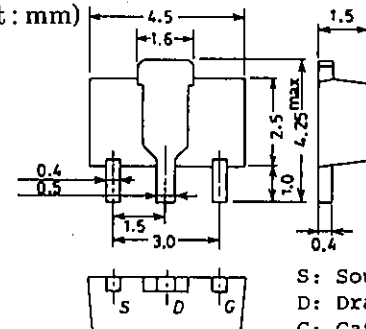
| | | | unit |
|-----------------------------|------------------|--|-------|
| Drain to Source Voltage | V _{DS} | 60 | V |
| Gate to Source Voltage | V _{GS} | ±15 | V |
| Drain Current(DC) | I _D | 2 | A |
| Drain Current(Pulse) | I _{DP} | PW ≤ 10 μs, duty cycle ≤ 1% | 8 A |
| Allowable Power Dissipation | P _D | T _c = 25°C | 3.5 W |
| | | Mounted on ceramic board (250mm ² × 0.8mm) | 1.5 W |
| Channel Temperature | T _{ch} | 150 | °C |
| Storage Temperature | T _{stg} | -55 to +150 | °C |

Electrical Characteristics at Ta = 25°C

| | | | min | typ | max | unit |
|--------------------------------|----------------------|---|------|------|-----|------|
| D-S Breakdown Voltage | V _{(BR)DSS} | I _D = 1mA, V _{GS} = 0 | 60 | | | V |
| Zero Gate Voltage | I _{DSS} | V _{DS} = 60V, V _{GS} = 0 | | | 100 | μA |
| Drain Current | I _{DSS} | V _{GS} = ±12V, V _{DS} = 0 | | | ±10 | μA |
| Gate to Source Leakage Current | I _{GSS} | V _{DS} = 10V, I _D = 1mA | 1.0 | | 2.0 | V |
| Cutoff Voltage | V _{GS(off)} | V _{DS} = 10V, I _D = 1A | 1.2 | 2.0 | | S |
| Forward Transfer Admittance | Y _{fs} | I _D = 1A, V _{GS} = 10V | 0.35 | 0.45 | | Ω |
| Static Drain to Source | R _{DS(on)} | I _D = 1A, V _{GS} = 4V | 0.45 | 0.6 | | Ω |
| on State Resistance | R _{DS(on)} | V _{DS} = 20V, f = 1MHz | | | | pF |
| Input Capacitance | C _{iss} | V _{DS} = 20V, f = 1MHz | | | | pF |
| Output Capacitance | C _{oss} | V _{DS} = 20V, f = 1MHz | | | | pF |
| Reverse Transfer Capacitance | C _{rss} | V _{DS} = 20V, f = 1MHz | | | | pF |
| Turn-ON Delay Time | t _{d(on)} | See specified Test Circuit. | | 6 | | ns |
| Rise Time | t _r | " | | 10 | | ns |
| Turn-OFF Delay Time | t _{d(off)} | " | | 60 | | ns |
| Fall Time | t _f | " | | 20 | | ns |
| Diode Forward Voltage | V _{SD} | I _S = 2A, V _{GS} = 0 | 1.0 | | | V |

Switching Time Test Circuit**Package Dimensions 2062**

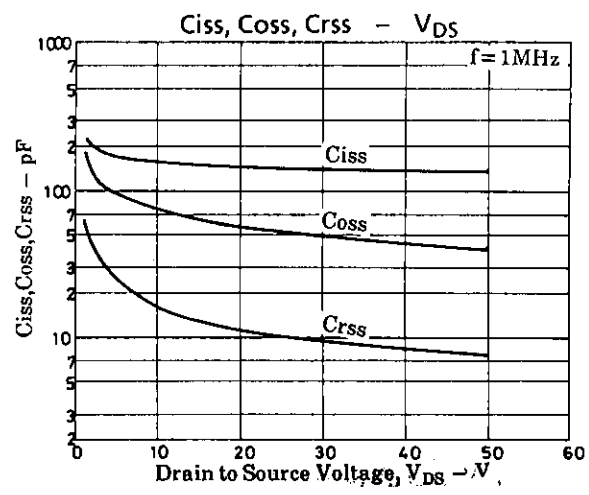
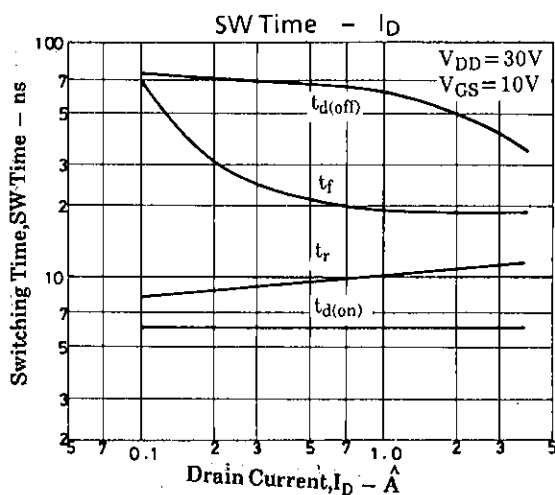
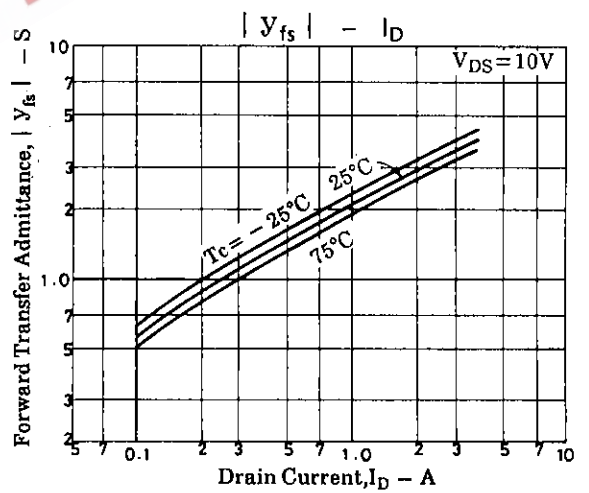
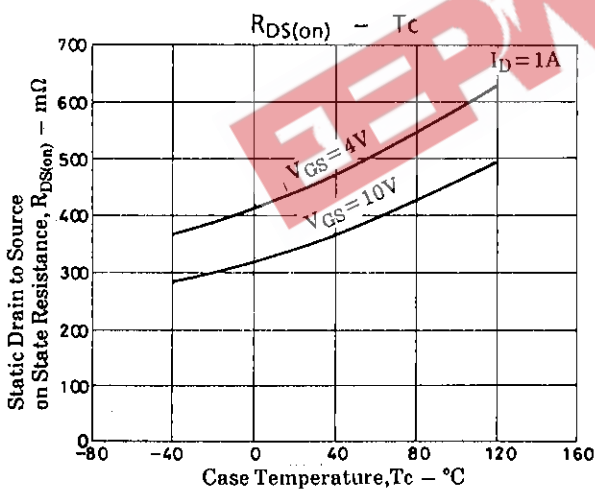
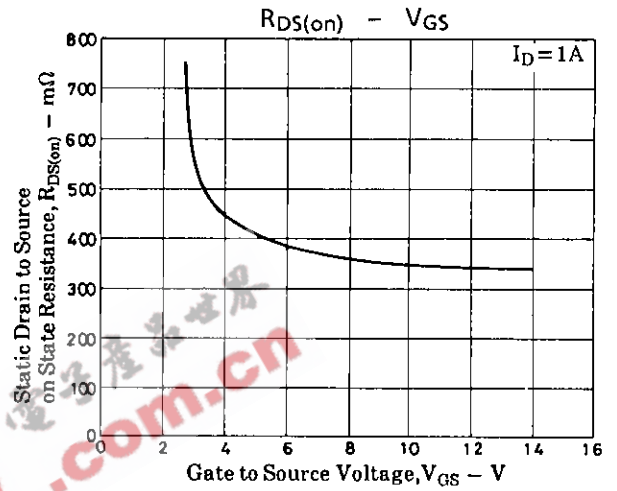
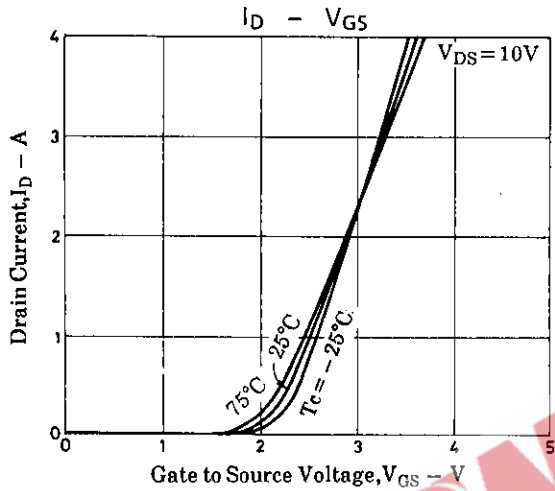
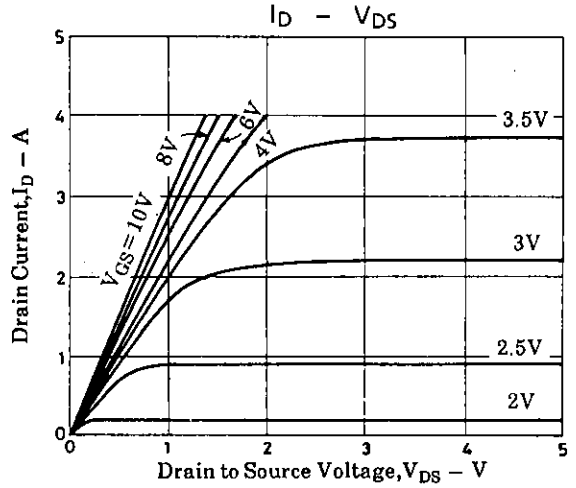
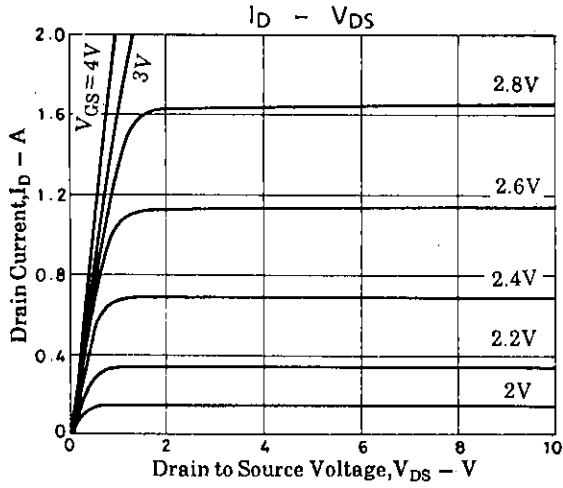
(unit: mm)

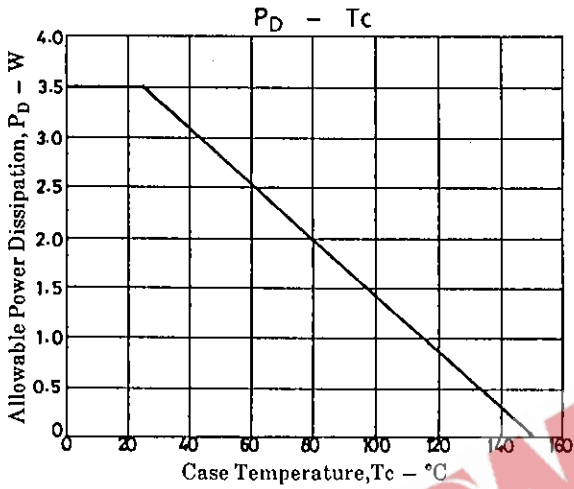
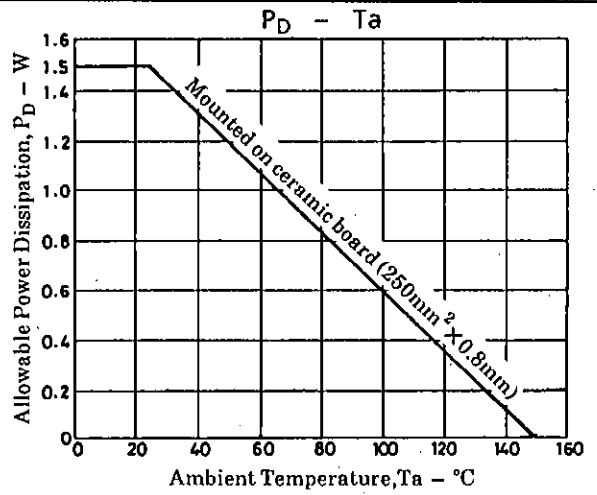
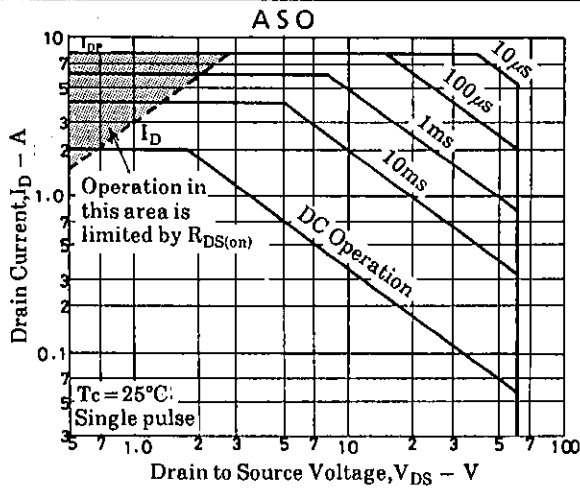
S: Source
D: Drain
G: Gate

SANYO: PCP

SANYO Electric Co., Ltd. Semiconductor Business Headquarters

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN





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