

SANYO

No.3831

2SK1736

N-Channel MOS Silicon FET

Very High-Speed
Switching Applications**Features**

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

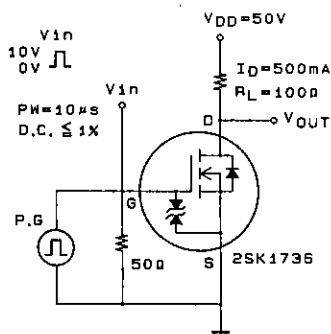
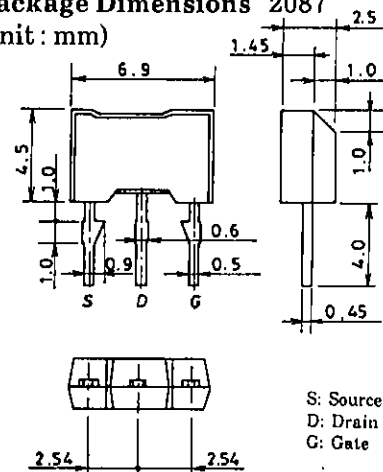
Absolute Maximum Ratings at Ta = 25°C

| | | | unit |
|-----------------------------|------------------|-------------|------|
| Drain to Source Voltage | V _{DSS} | 100 | V |
| Gate to Source Voltage | V _{GSS} | ±15 | V |
| Drain Current(DC) | I _D | 1 | A |
| Drain Current(Pulse) | I _{DP} | 4 | A |
| Allowable Power Dissipation | P _D | 1 | W |
| Channel Temperature | T _{ch} | 150 | °C |
| Storage Temperature | T _{stg} | -55 to +150 | °C |

PW ≤ 10μs, duty cycle ≤ 1%

Electrical Characteristics at Ta = 25°C

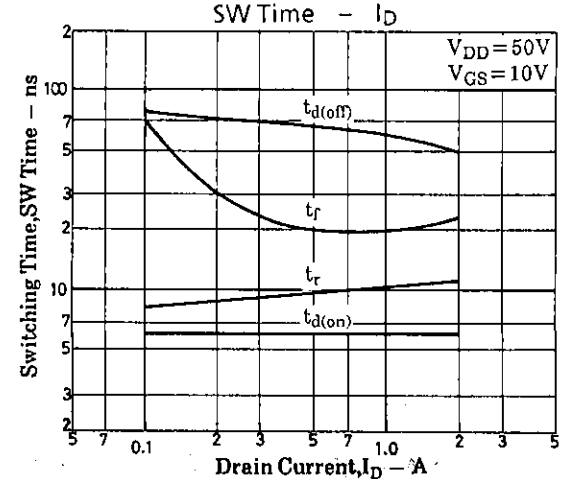
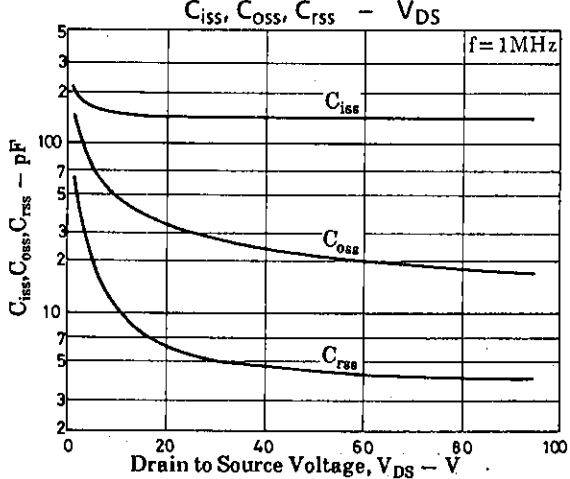
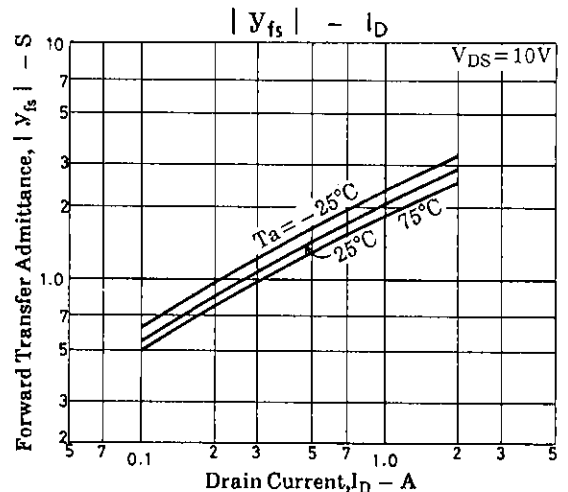
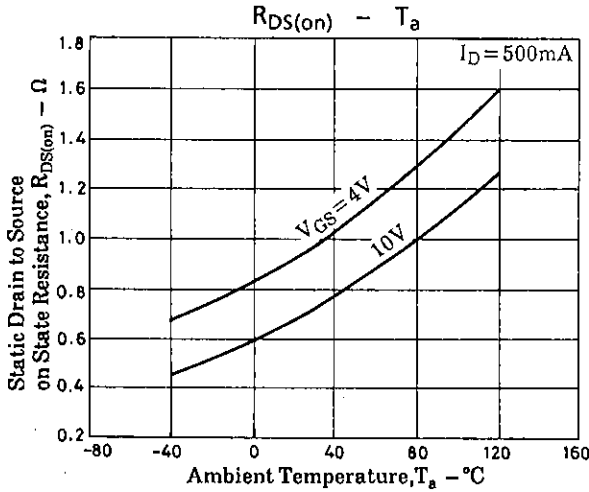
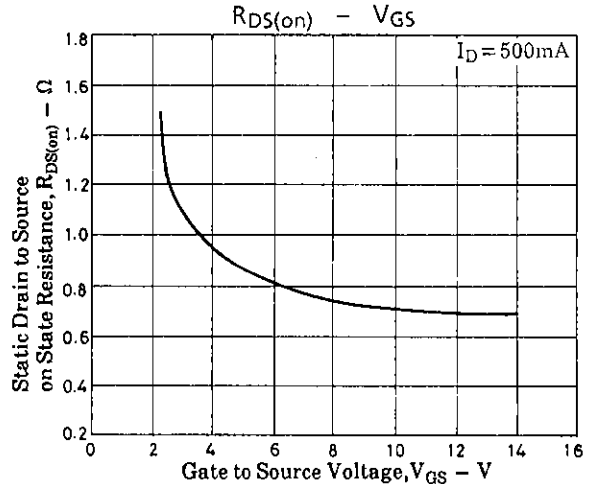
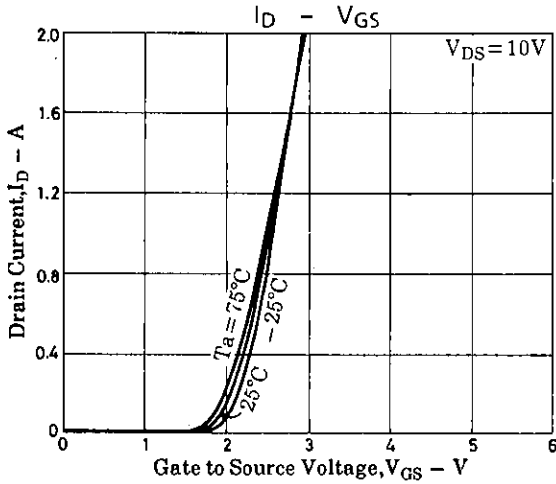
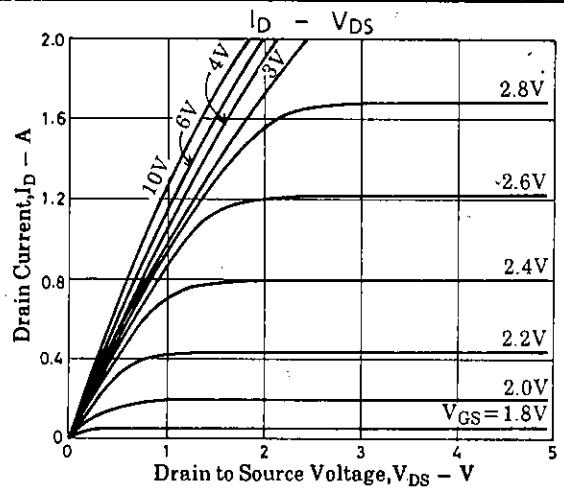
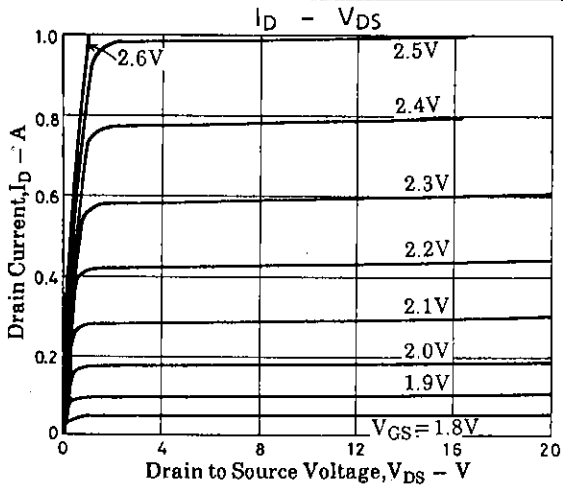
| | | | min | typ | max | unit |
|--|----------------------|---|-----|------|------|------|
| D-S Breakdown Voltage | V _{(BR)DSS} | I _D = 1mA, V _{GS} = 0 | 100 | | | V |
| Zero Gate Voltage Drain Current | I _{DSS} | V _{DS} = 100V, V _{GS} = 0 | | | 100 | μA |
| Gate to Source Leakage Current | I _{GSS} | V _{GS} = ±12V, V _{DS} = 0 | | | ±10 | μA |
| Cutoff Voltage | V _{GS(off)} | V _{DS} = 10V, I _D = 1mA | 1.0 | | 2.0 | V |
| Forward Transfer Admittance | Y _{fs} | V _{DS} = 10V, I _D = 500mA | 0.9 | 1.5 | | S |
| Static Drain to Source on State Resistance | R _{DS(on)} | I _D = 500mA, V _{GS} = 10V | | 0.7 | 0.95 | Ω |
| | R _{DS(on)} | I _D = 500mA, V _{GS} = 4V | | 0.95 | 1.3 | Ω |
| Input Capacitance | C _{iss} | V _{DS} = 20V, f = 1MHz | | 150 | | pF |
| Output Capacitance | C _{oss} | V _{DS} = 20V, f = 1MHz | | 35 | | pF |
| Reverse Transfer Capacitance | C _{rss} | V _{DS} = 20V, f = 1MHz | | 6 | | 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)} | ∕ | | 65 | | ns |
| Fall Time | t _f | ∕ | | 20 | | ns |
| Diode Forward Voltage | V _{SD} | I _S = 1A, V _{GS} = 0 | | 0.9 | | V |

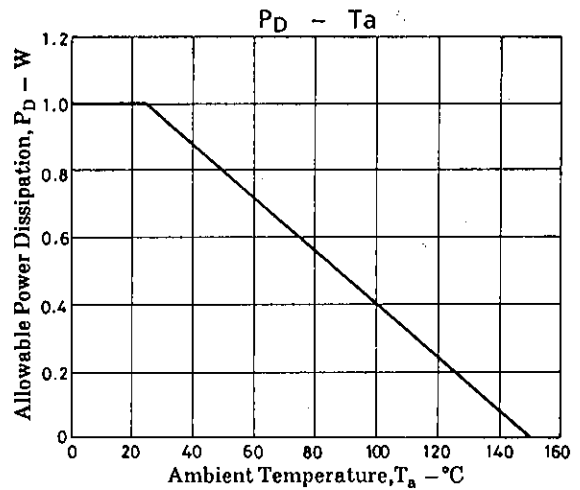
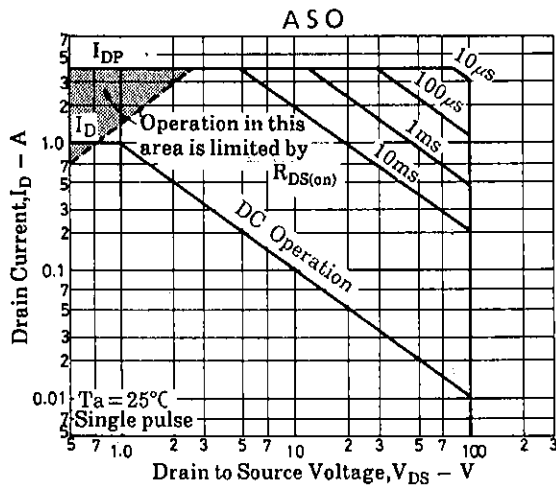
Switching Time Test Circuit**Package Dimensions 2087**
(unit : mm)

S: Source
D: Drain
G: Gate

SANYO: NMP

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