

| | | |
|--|---------|---------------------------|
| SANYO | No.3464 | 2SK1461 |
| | | N-Channel MOS Silicon FET |
| Very High-Speed Switching Applications | | |

Features

- Low ON-state resistance.
- Very high-speed switching.
- Converters.

Absolute Maximum Ratings at Ta = 25°C

| | | | unit |
|-----------------------------|------------------|-------------|------|
| Drain to Source Voltage | V _{DSS} | 900 | V |
| Gate to Source Voltage | V _{GSS} | ±30 | V |
| Drain Current(DC) | I _D | 5 | A |
| Drain Current(Pulse) | I _{DP} | 10 | A |
| Allowable Power Dissipation | P _D | 120 | W |
| | | 2.5 | W |
| Channel Temperature | T _{ch} | 150 | °C |
| Storage Temperature | T _{stg} | -55 to +150 | °C |

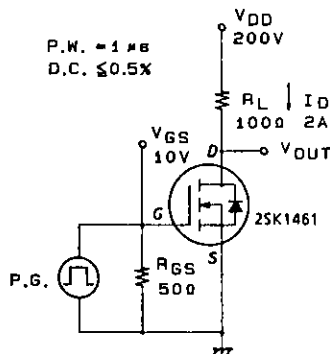
PW ≤ 10 μs, duty cycle ≤ 1%
Tc = 25°C

Electrical Characteristics at Ta = 25°C

| | | | min | typ | max | unit |
|--|----------------------|---|-----|-----|------|------|
| D-S Breakdown Voltage | V _{(BR)DSS} | I _D = 1mA, V _{GS} = 0 | 900 | | | V |
| Zero Gate Voltage Drain Current | I _{DSS} | V _{DS} = 900V, V _{GS} = 0 | | | 1.0 | mA |
| Gate to Source Leakage Current | I _{GSS} | V _{GS} = ±30V, V _{DS} = 0 | | | ±100 | nA |
| Cutoff Voltage | V _{GS(off)} | V _{DS} = 10V, I _D = 1mA | 2.0 | | 3.0 | V |
| Forward Transfer Admittance | Y _{fs} | V _{DS} = 20V, I _D = 2A | 1.0 | 2.0 | | S |
| Static Drain to Source on State Resistance | R _{DS(on)} | I _D = 2A, V _{GS} = 10V | | 2.8 | 3.6 | Ω |
| Input Capacitance | C _{iss} | V _{DS} = 20V, f = 1MHz | | 700 | | pF |
| Output Capacitance | C _{oss} | V _{DS} = 20V, f = 1MHz | | 300 | | pF |
| Reverse Transfer Capacitance | C _{rss} | V _{DS} = 20V, f = 1MHz | | 170 | | pF |
| Turn-ON Delay Time | t _{d(on)} | I _D = 2A, V _{GS} = 10V V _{DD} = 200V, R _{GS} = 50Ω | | 15 | | ns |
| Rise Time | t _r | | 35 | | ns | |
| Turn-OFF Delay Time | t _{d(off)} | | 200 | | ns | |
| Fall Time | t _f | | 65 | | ns | |
| Diode Forward Voltage | V _{SD} | I _S = 5A, V _{GS} = 0 | | | 1.8 | V |

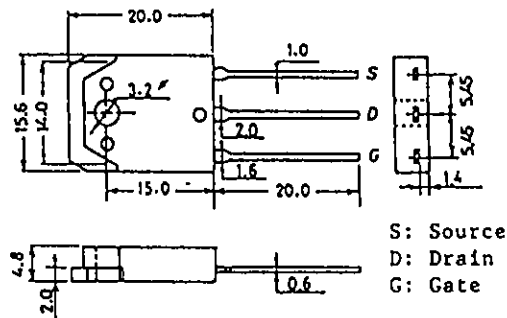
(Note) Be careful in handling the 2SK1461 because it has no protection diode between gate and source.

Switching Time Test Circuit

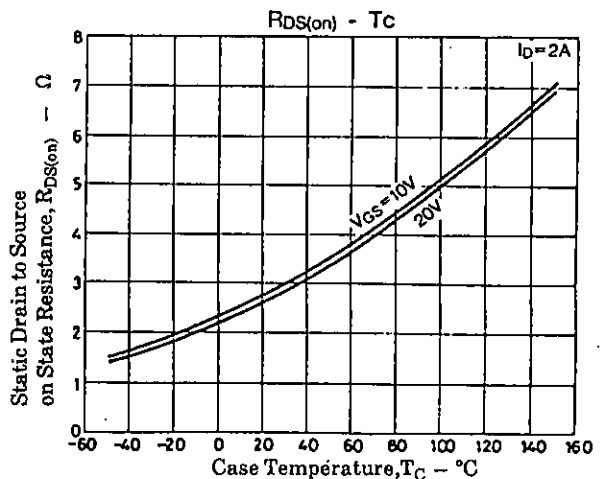
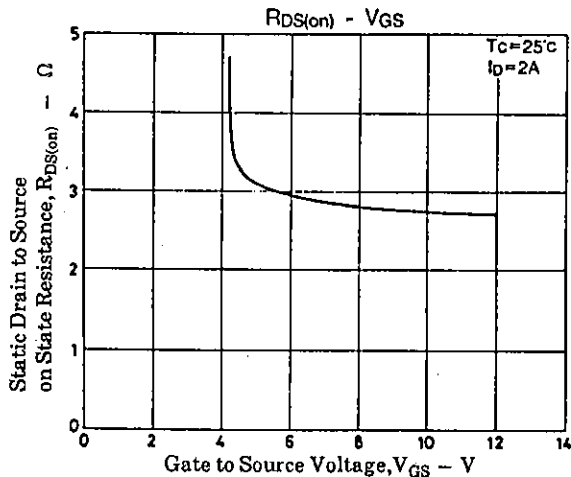
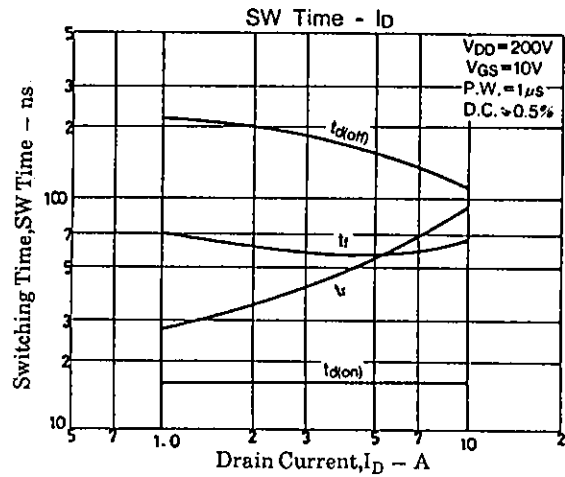
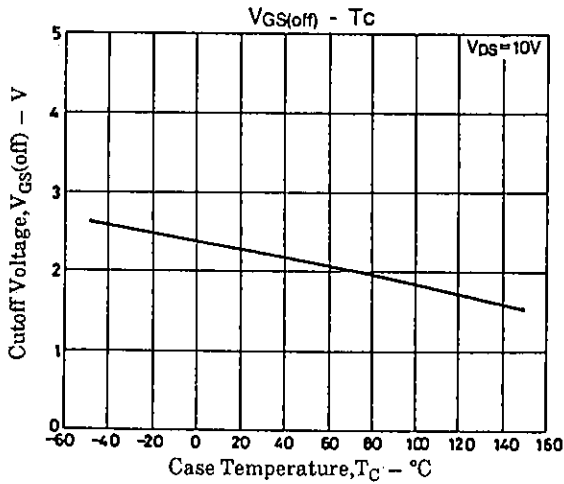
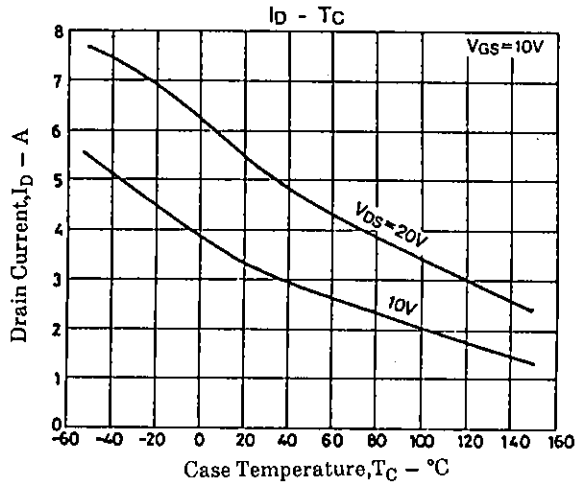
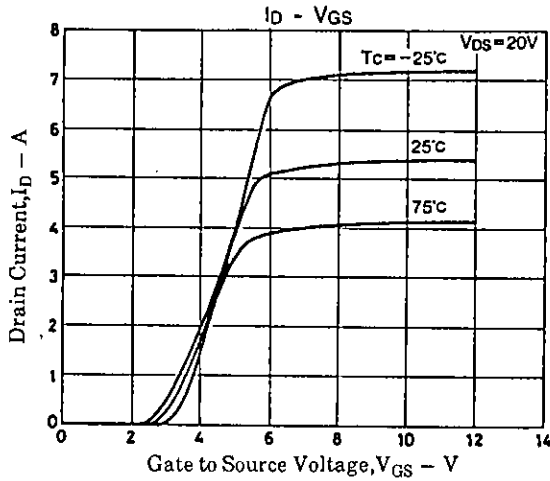
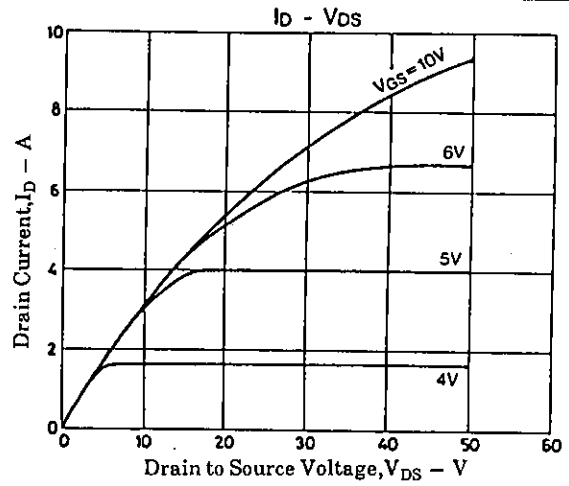
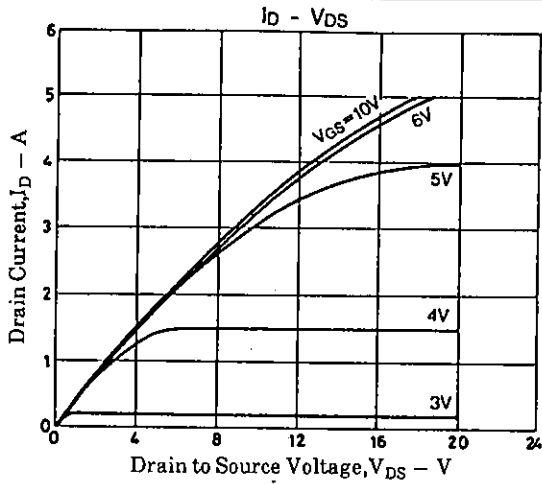


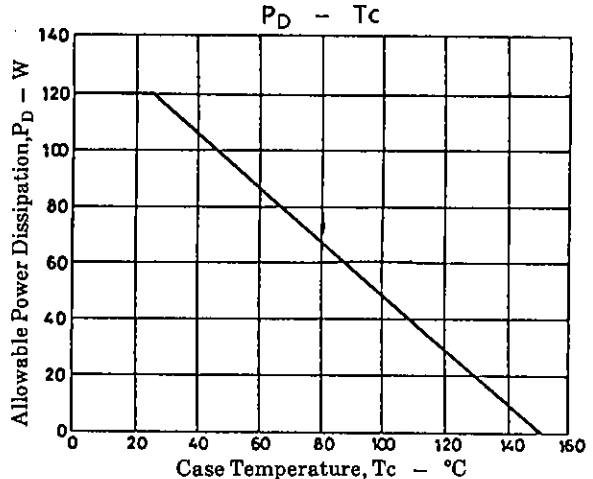
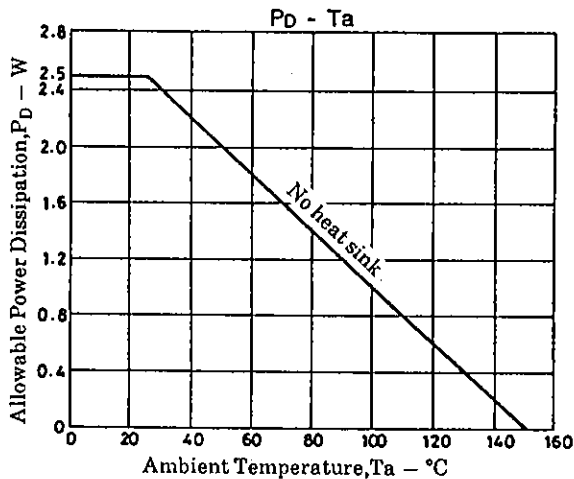
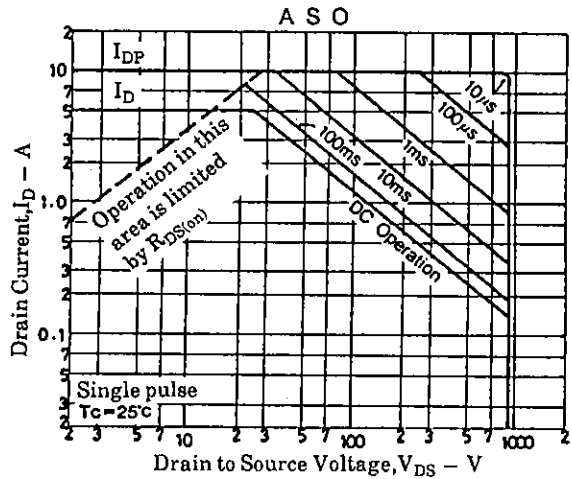
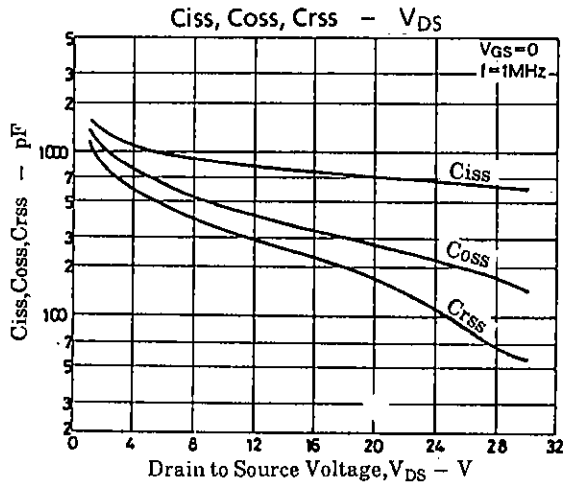
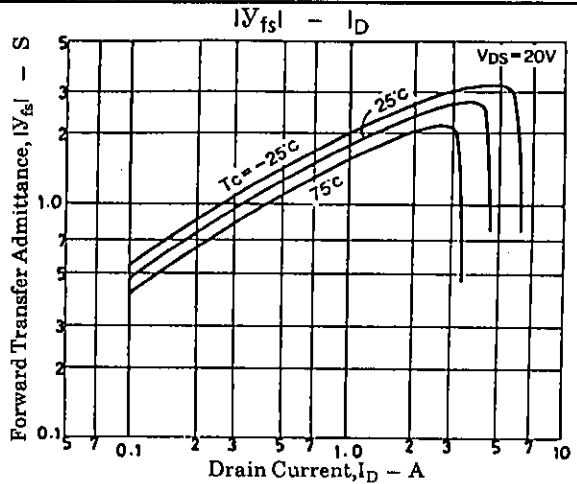
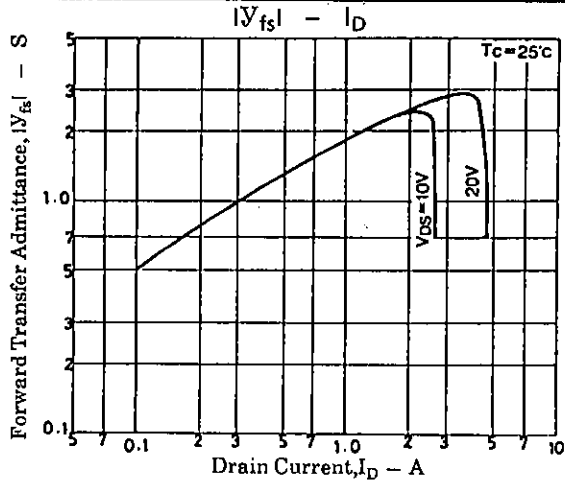
Package Dimensions 2056

(unit: mm)



SANYO: TO3PB





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