



2SK1472

Ultrahigh-Speed Switching Applications

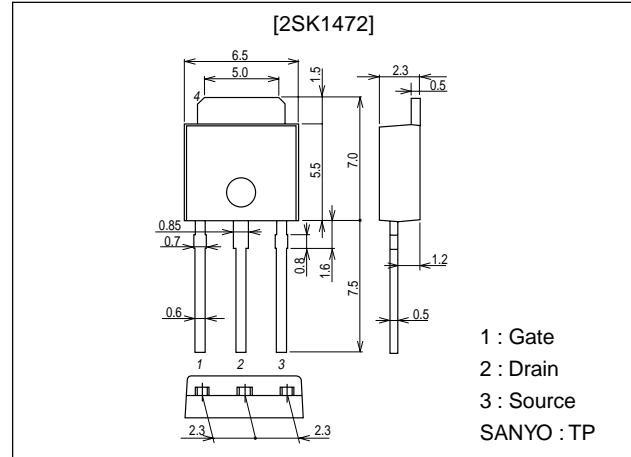
Features

- Low ON resistance.
- Ultrahigh-speed switching.
- Low-voltage drive.

Package Dimensions

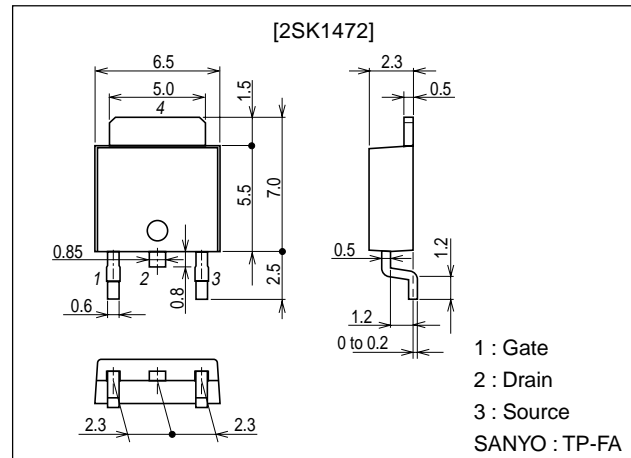
unit:mm

2083B



unit:mm

2092B



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Specifications

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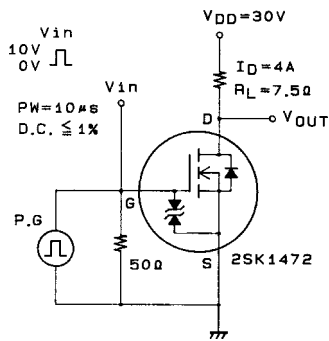
Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|------------------|------------------------|-------------|------|
| Drain-to-Source Voltage | V _{DSS} | | 60 | V |
| Gate-to-Source Voltage | V _{GSS} | | ±15 | V |
| Drain Current (DC) | I _D | | 8 | A |
| Drain Current (pulse) | I _{DP} | PW≤10μs, duty cycle≤1% | 32 | A |
| Allowable Power Dissipation | P _D | | 1.0 | W |
| | | T _c =25°C | 30 | W |
| Channel Temperature | T _{ch} | | 150 | °C |
| Storage Temperature | T _{stg} | | -55 to +150 | °C |

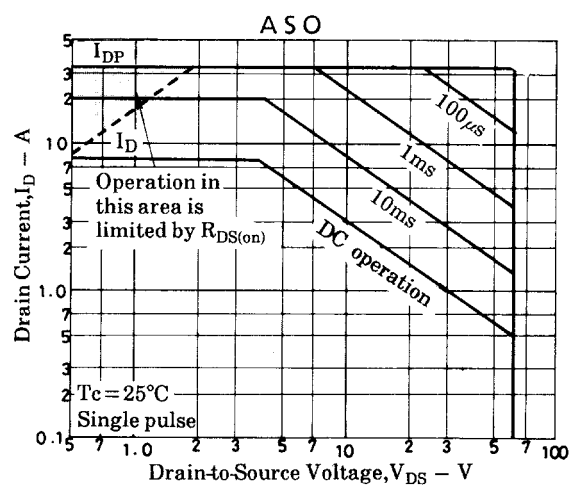
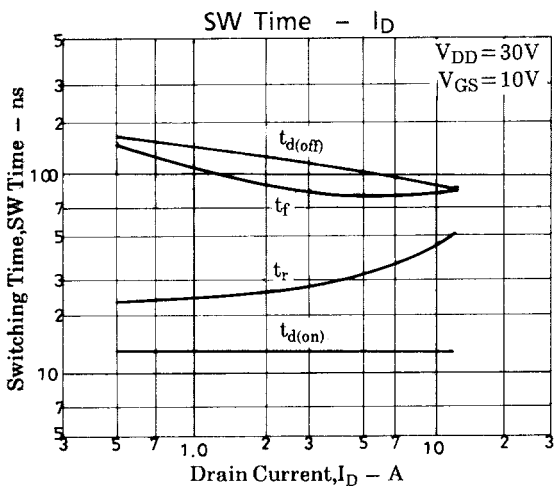
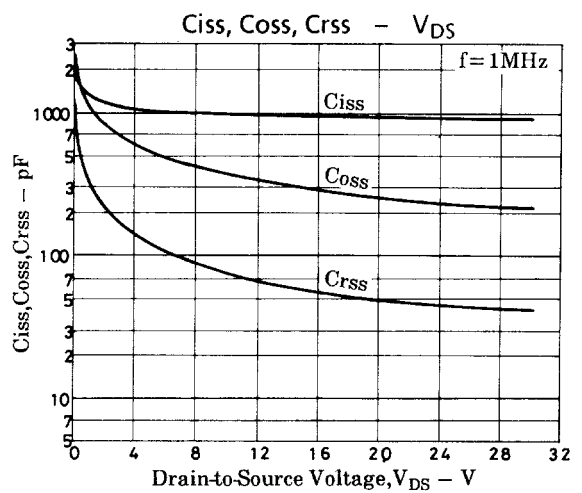
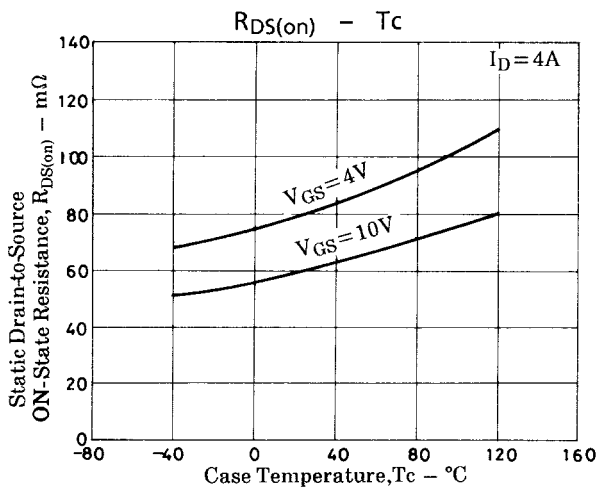
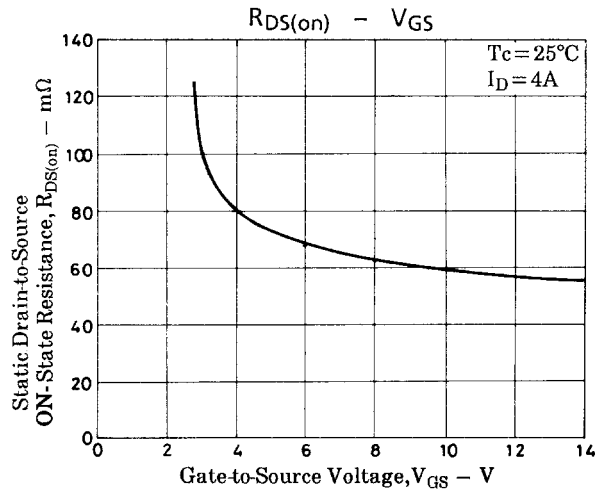
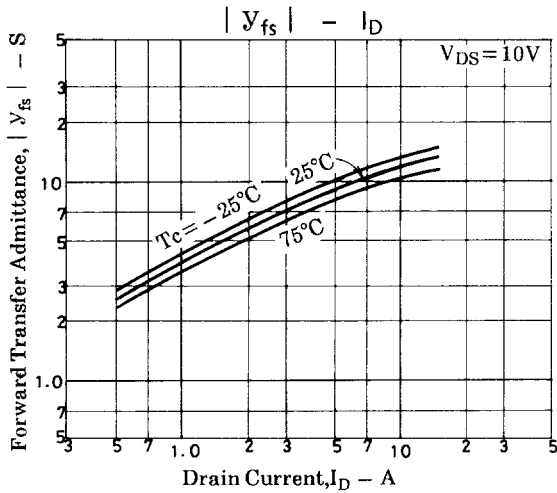
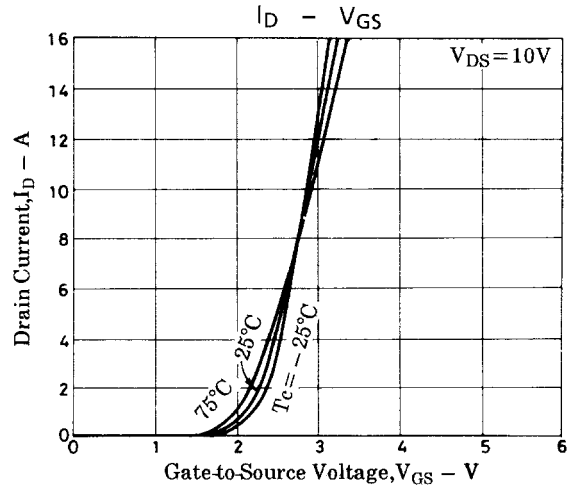
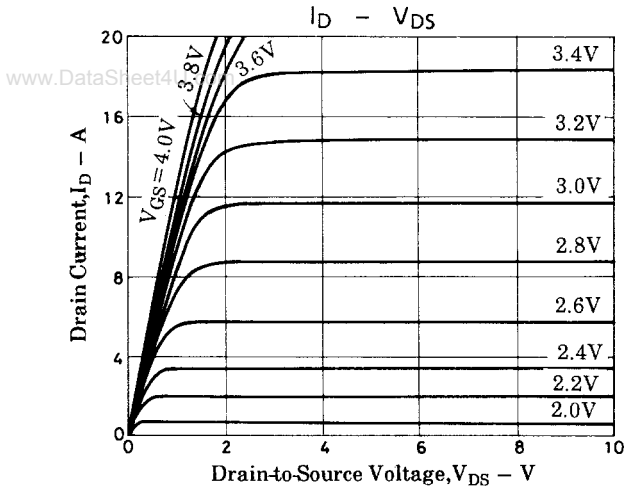
Electrical Characteristics at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--|----------------------|--|---------|-----|-----|------|
| | | | min | typ | max | |
| Drain-to-Source Breakdown Voltage | V _{(BR)DSS} | I _D =1mA, V _{GS} =0 | 60 | | | V |
| Gate-to-Source Breakdown Voltage | V _{(BR)GSS} | I _G =±100μA, V _{DS} =0 | ±15 | | | V |
| Zero-Gate Voltage Drain Current | I _{DSS} | V _{DS} =60V, 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 =4A | 5 | 8 | | S |
| Static Drain-to-Source On-State Resistance | R _{DS(on)1} | I _D =4A, V _{GS} =10V | | 60 | 80 | mΩ |
| | R _{DS(on)2} | I _D =4A, V _{GS} =4V | | 80 | 110 | mΩ |
| Input Capacitance | C _{iss} | V _{DS} =20V, f=1MHz | | 950 | | pF |
| Output Capacitance | C _{oss} | V _{DS} =20V, f=1MHz | | 250 | | pF |
| Reverse Transfer Capacitance | C _{rss} | V _{DS} =20V, f=1MHz | | 50 | | pF |
| Turn-ON Delay Time | t _{d(on)} | See specified Test Circuit | | 13 | | ns |
| Rise Time | t _r | See specified Test Circuit | | 30 | | ns |
| Turn-OFF Delay Time | t _{d(off)} | See specified Test Circuit | | 110 | | ns |
| Fall Time | t _f | See specified Test Circuit | | 80 | | ns |
| Diode Forward Voltage | V _{SD} | I _S =8A, V _{GS} =0 | | 1.0 | 1.5 | V |

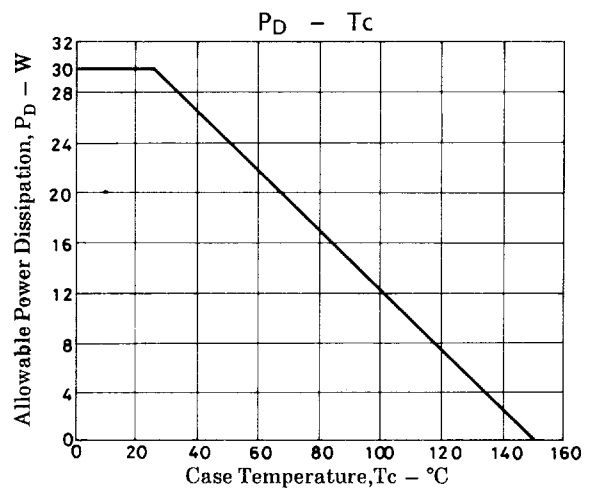
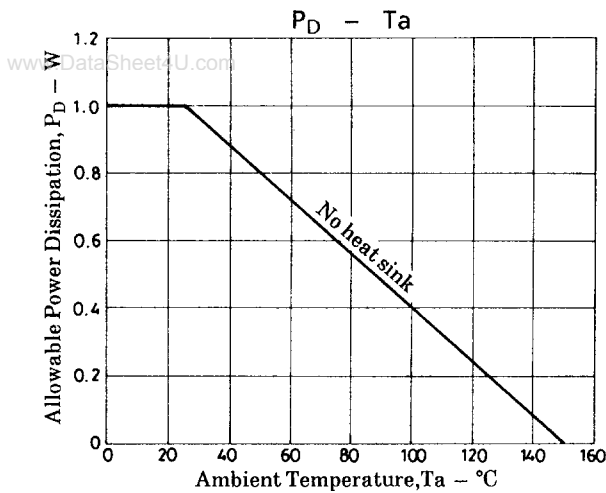
Switching Time Test Circuit



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