

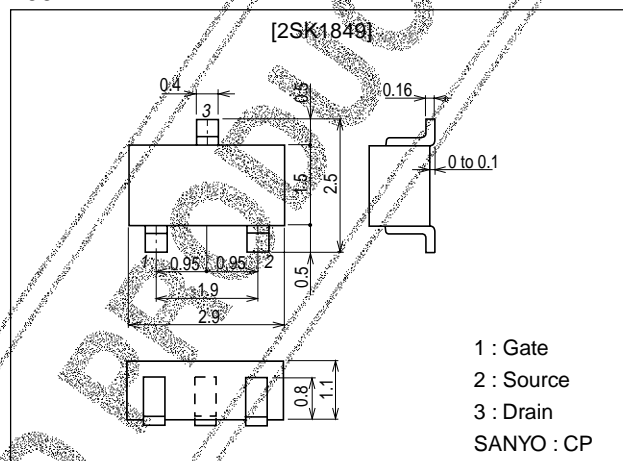
SANYO**2SK1849****Ultrahigh-Speed Switching Applications****Features**

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

Package Dimensions

unit:mm

2091A

**Specifications****Absolute Maximum Ratings at Ta = 25°C**

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|-----------|------------------------|-------------|------|
| Drain-to-Source Voltage | V_{DS} | | 100 | V |
| Gate-to-Source Voltage | V_{GS} | | ±15 | V |
| Drain Current (DC) | I_D | | 250 | mA |
| Drain Current (pulse) | I_{DP} | PW≤10μs, duty cycle≤1% | 1 | A |
| Allowable Power Dissipation | P_D | | 250 | mW |
| 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 | $V_{(BR)DSS}$ | $I_D=1mA, V_{GS}=0$ | 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} $ | $V_{DS}=10V, I_D=150mA$ | 250 | 500 | | mS |
| Static Drain-to-Source On-State Resistance | $R_{DS(on)1}$ | $I_D=150mA, V_{GS}=10V$ | | 2.7 | 3.5 | Ω |
| | $R_{DS(on)2}$ | $I_D=150mA, V_{GS}=4V$ | | 3.2 | 4.2 | Ω |

Marking : MJ

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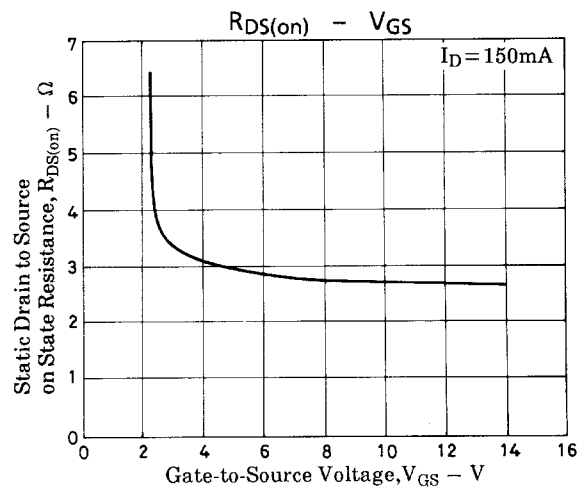
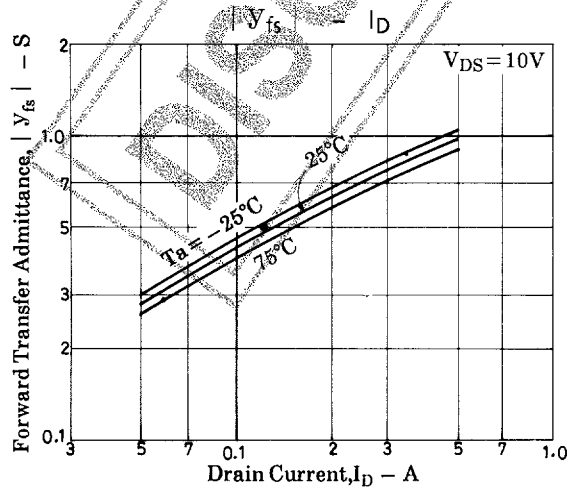
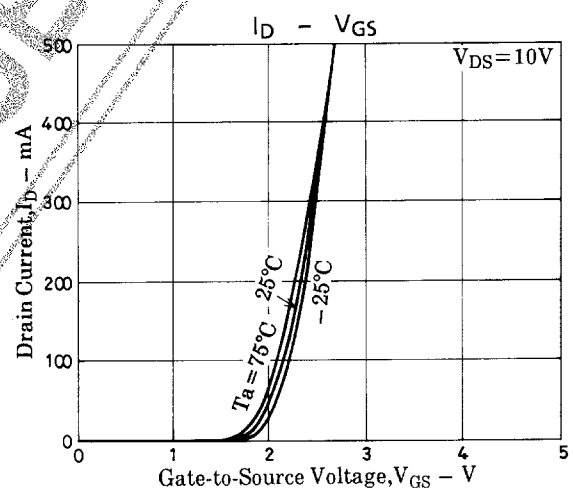
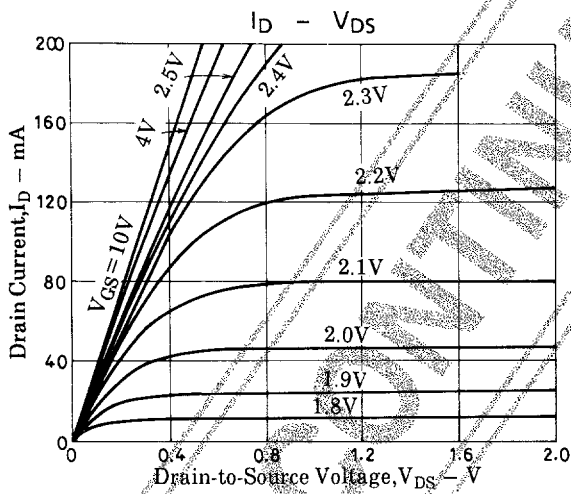
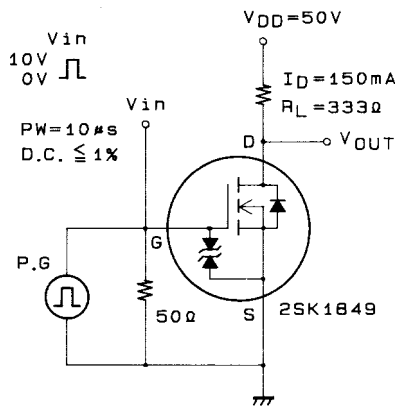
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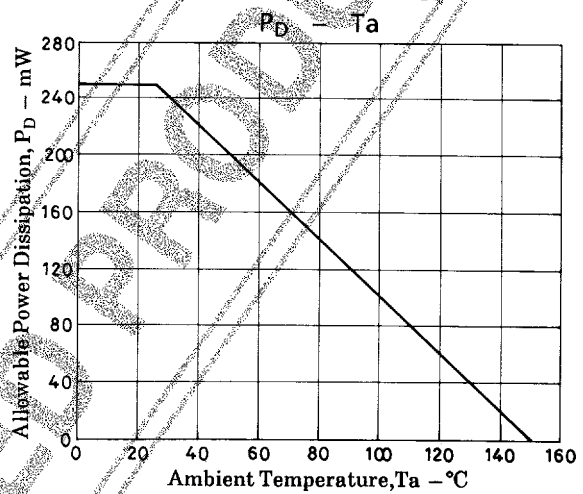
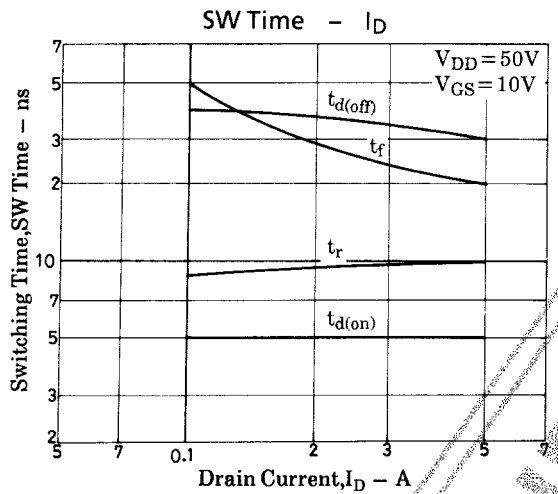
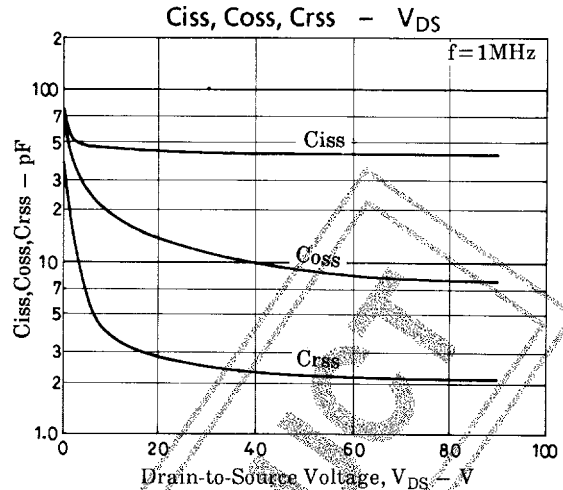
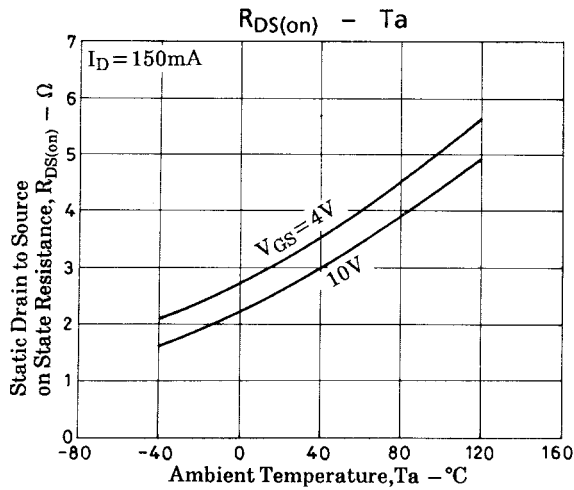
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| Parameter | Symbol | Conditions | Ratings | | Unit |
|------------------------------|--------------|----------------------------|---------|--|------|
| Input Capacitance | C_{iss} | $V_{DS}=20V, f=1MHz$ | 45 | | pF |
| Output Capacitance | C_{oss} | $V_{DS}=20V, f=1MHz$ | 15 | | pF |
| Reverse Transfer Capacitance | C_{rss} | $V_{DS}=20V, f=1MHz$ | 3 | | pF |
| Turn-ON Delay Time | $t_{d(on)}$ | See specified Test Circuit | 5 | | ns |
| Rise Time | t_r | See specified Test Circuit | 40 | | ns |
| Turn-OFF Delay Time | $t_{d(off)}$ | See specified Test Circuit | 40 | | ns |
| Fall Time | t_f | See specified Test Circuit | 35 | | ns |
| Diode Forward Voltage | V_{SD} | $I_S=250mA, V_{GS}=0$ | 0.9 | | V |

Switching Time Test Circuit





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