

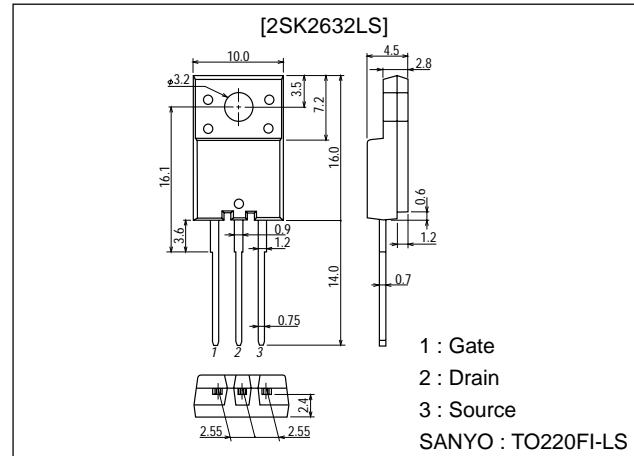
**2SK2632LS****Ultrahigh-Speed Switching Applications****Features**

- Low ON-resistance.
- Low Qg.

**Package Dimensions**

unit:mm

2078B

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

| Parameter                   | Symbol    | Conditions                                | Ratings     | Unit       |
|-----------------------------|-----------|---|-------------|------------|
| Drain-to-Source Voltage     | $V_{DSS}$ |   | 800         | V          |
| Gate-to-Source Voltage      | $V_{GSS}$ |   | $\pm 30$    | V          |
| Drain Current (DC)          | $I_D$     |   | 2.5         | A          |
| Drain Current (Pulse)       | $I_{DP}$  |   | 7.5         | A          |
| Allowable Power Dissipation | $P_D$     | $PW \leq 10\mu s$ , duty cycle $\leq 1\%$ | 2.0         | W          |
|                             |           | $T_c = 25^\circ C$                        | 25          | W          |
| Channel Temperature         | $T_{ch}$  |   | 150         | $^\circ C$ |
| Storage Temperature         | $T_{stg}$ |   | -55 to +150 | $^\circ C$ |

**Electrical Characteristics** at Ta = 25°C

| Parameter                                  | Symbol        | Conditions                        | Ratings |     |           | Unit     |
|--|---------------|-----------------------------------|---------|-----|-----------|----------|
|  |               |                                   | min     | typ | max       |          |
| Drain-to-Source Breakdown Voltage          | $V_{(BR)DSS}$ | $I_D = 1mA$ , $V_{GS} = 0$        | 800     |     |           | V        |
| Zero-Gate Voltage Drain Current            | $I_{DSS}$     | $V_{DS} = 800V$ , $V_{GS} = 0$    |         |     | 1.0       | mA       |
| Gate-to-Source Leakage Current             | $I_{GSS}$     | $V_{GS} = \pm 30V$ , $V_{DS} = 0$ |         |     | $\pm 100$ | nA       |
| Cutoff Voltage                             | $V_{GS(off)}$ | $V_{DS} = 10V$ , $I_D = 1mA$      | 3.5     |     | 5.5       | V        |
| Forward Transfer Admittance                | $ y_{fs} $    | $V_{DS} = 10V$ , $I_D = 1.3A$     | 0.7     | 1.4 |           | S        |
| Static Drain-to-Source On-State Resistance | $R_{DS(on)}$  | $V_{GS} = 15V$ , $I_D = 1.3A$     |         | 3.6 | 4.8       | $\Omega$ |
| Input Capacitance                          | $C_{iss}$     | $V_{DS} = 20V$ , $f = 1MHz$       |         | 550 |           | pF       |
| Output Capacitance                         | $C_{oss}$     | $V_{DS} = 20V$ , $f = 1MHz$       |         | 150 |           | pF       |
| Reverse Transfer Capacitance               | $C_{rss}$     | $V_{DS} = 20V$ , $f = 1MHz$       |         | 70  |           | pF       |

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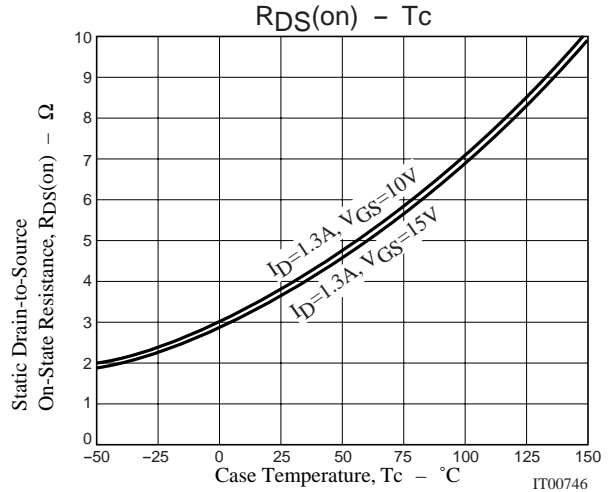
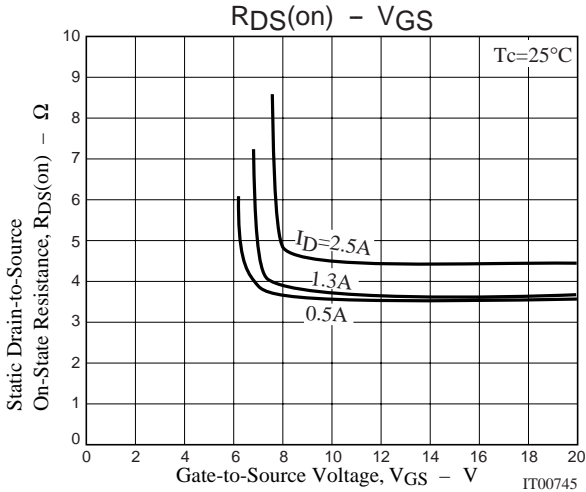
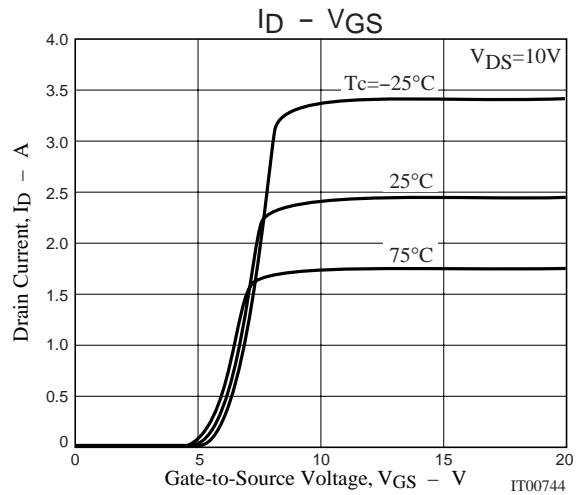
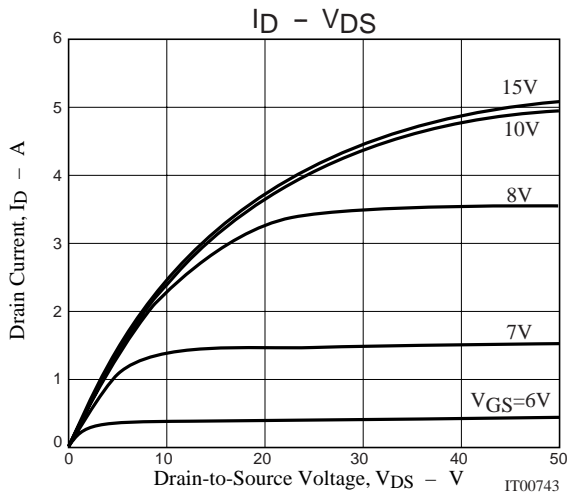
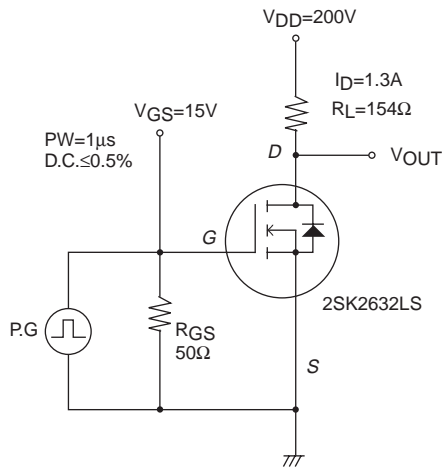
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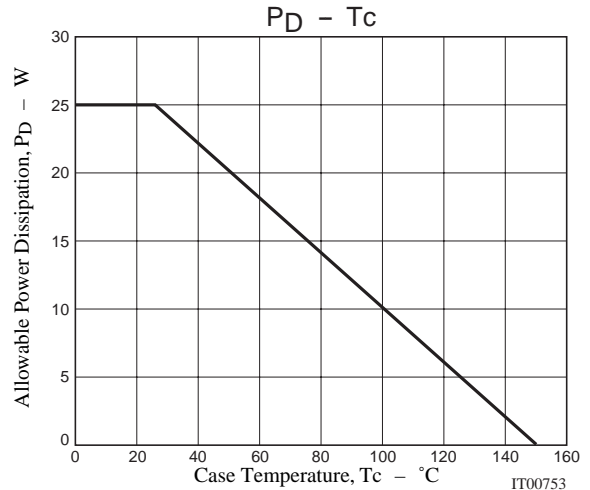
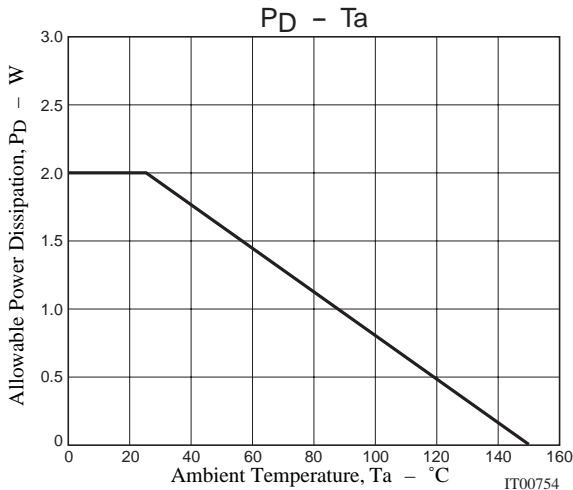
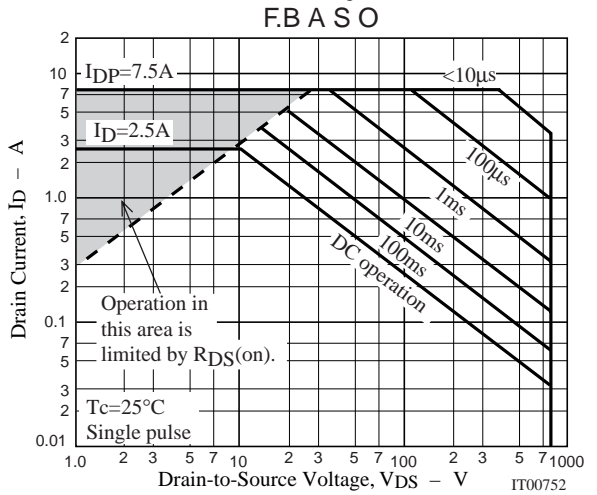
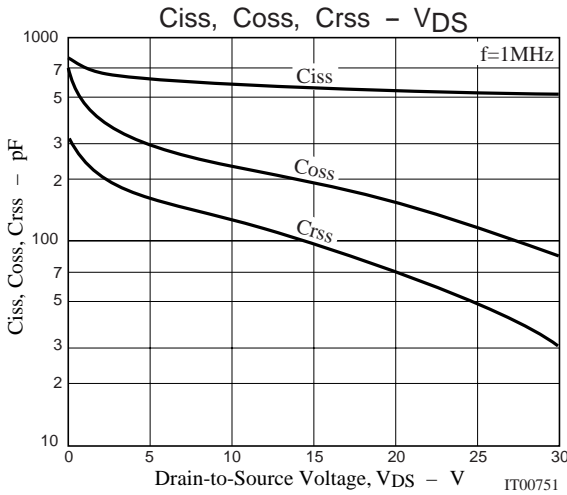
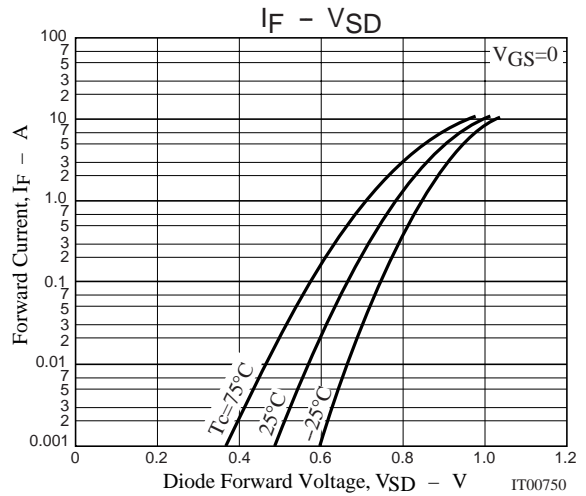
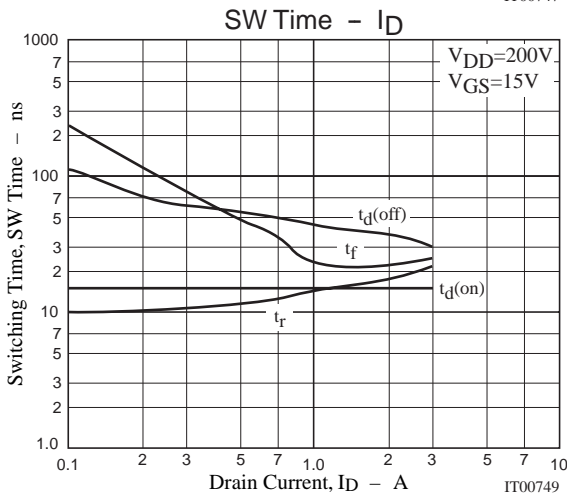
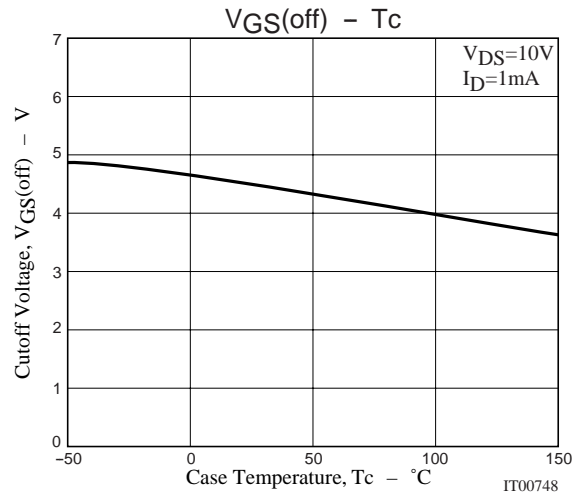
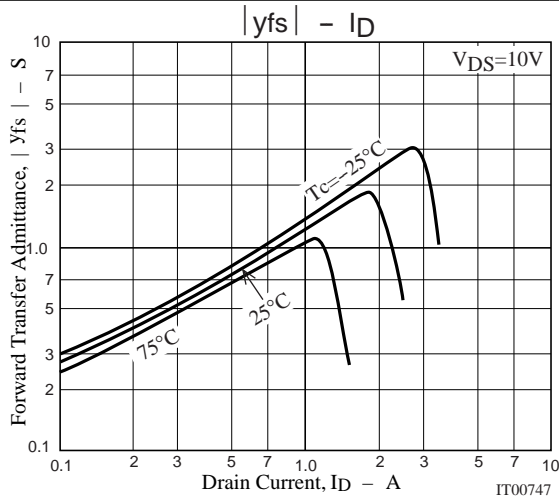
| Parameter             | Symbol              | Conditions  | Ratings |     |     | Unit |
|-----------------------|---------------------|---|---------|-----|-----|------|
|                       |                     |   | min     | typ | max |      |
| Total Gate Charge     | Qg                  | V <sub>DS</sub> =200V, V <sub>GS</sub> =10V, I <sub>D</sub> =2.5A |         | 15  |     | nC   |
| Turn-ON Delay Time    | t <sub>d(on)</sub>  | See specified Test Circuit  |         | 15  |     | ns   |
| Rise Time             | t <sub>r</sub>      | See specified Test Circuit  |         | 15  |     | ns   |
| Turn-OFF Delay Time   | t <sub>d(off)</sub> | See specified Test Circuit  |         | 45  |     | ns   |
| Fall Time             | t <sub>f</sub>      | See specified Test Circuit  |         | 23  |     | ns   |
| Diode Forward Voltage | V <sub>SD</sub>     | I <sub>S</sub> =2.5A, V <sub>GS</sub> =0                          | 0.84    | 1.2 |     | V    |

Marking : K2632

## Switching Time Test Circuit



# 2SK2632LS



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