



2SK2617LS

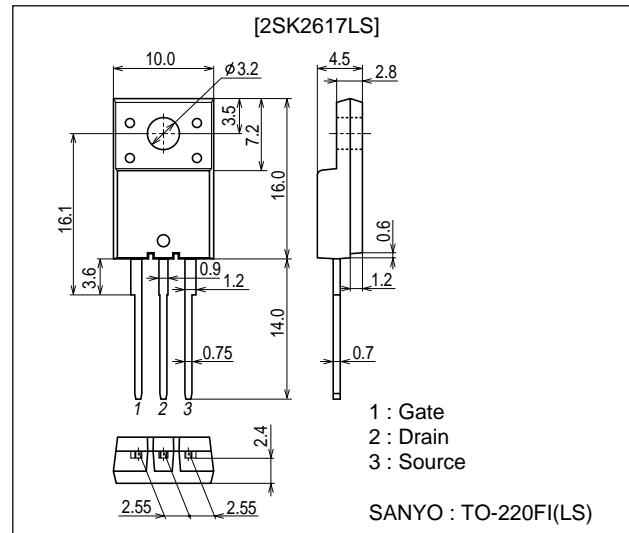
Ultrahigh-Speed Switching Applications

Features

- Low ON-resistance.
- Low Qg.

Package Dimensions

unit : mm
2078C



Specifications

Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|------------------|------------|-------------|------|
| Drain-to-Source Voltage | V _{DSS} | | 500 | V |
| Gate-to-Source Voltage | V _{GSS} | | ±30 | V |
| Drain Current (DC) | I _D | | 4 | A |
| Drain Current (Pulse) | I _{DP} | | 16 | A |
| Allowable Power Dissipation | PD | | 2.0 | W |
| | | Tc=25°C | 25 | 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 | 500 | | | V |
| Zero-Gate Voltage Drain Current | I _{DSS} | V _{DS} =500V, 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 | 3.5 | | 5.5 | V |
| Forward Transfer Admittance | y _{fs} | V _{DS} =10V, I _D =2A | 1.1 | 2.2 | | S |

Marking : K2617

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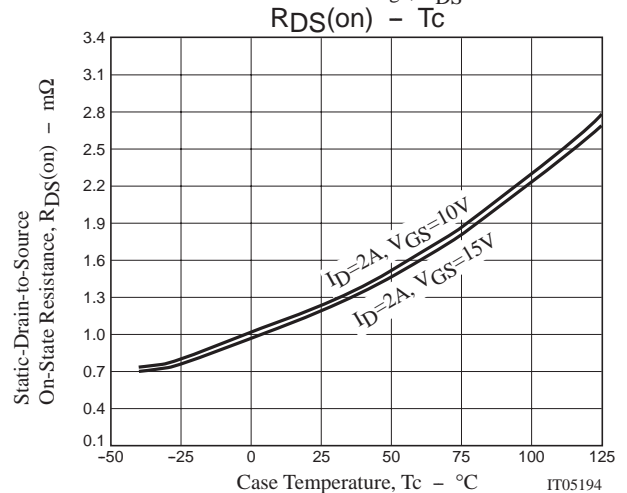
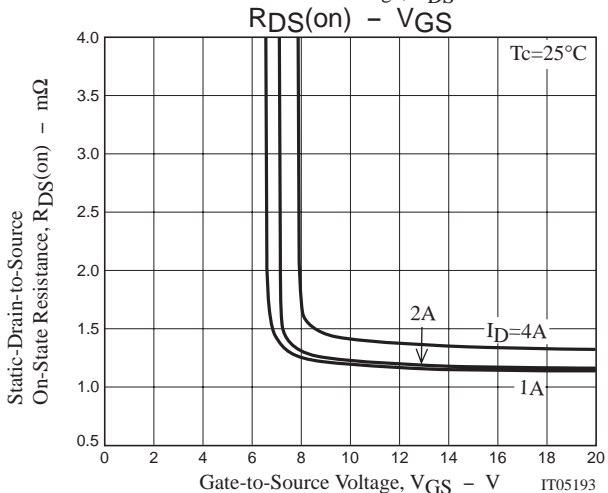
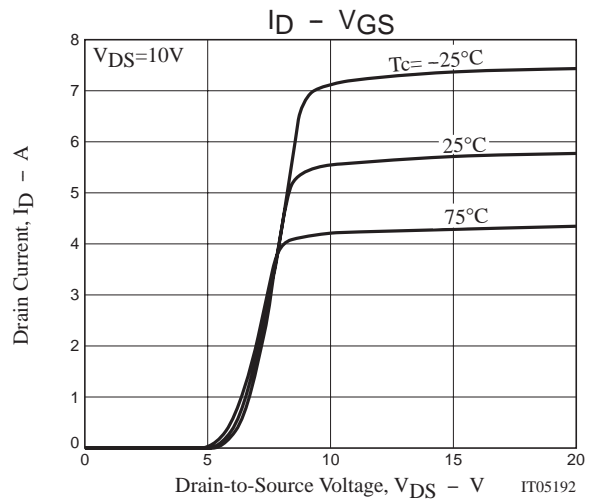
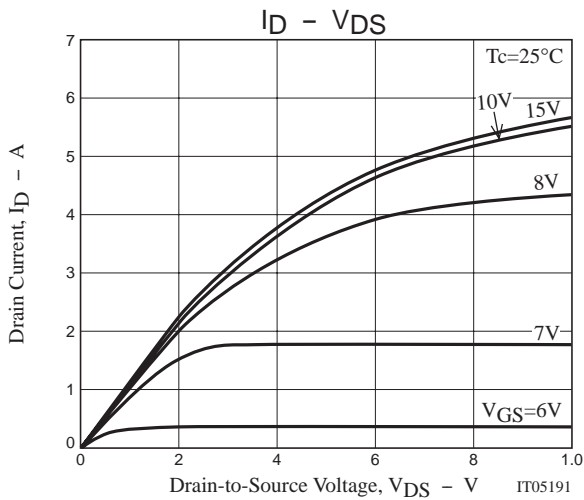
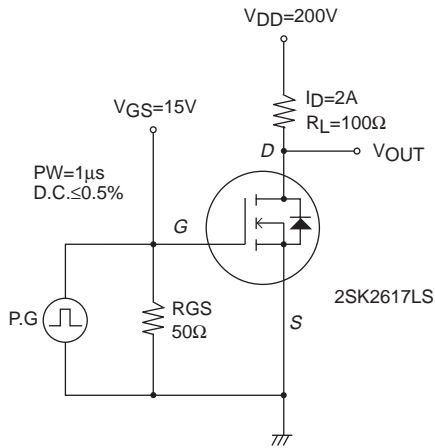
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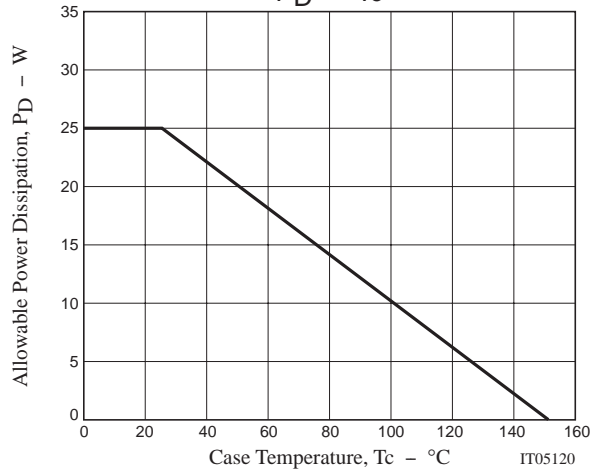
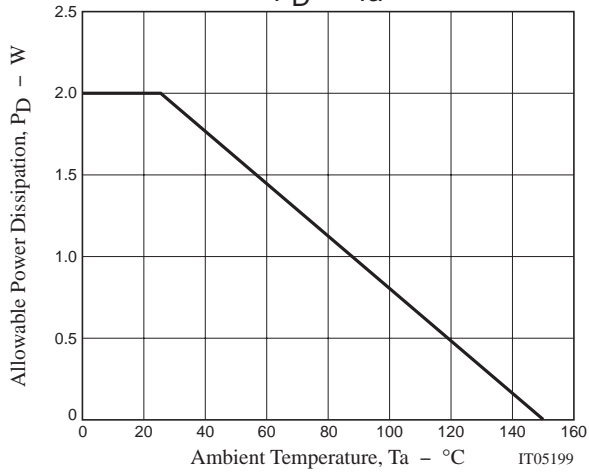
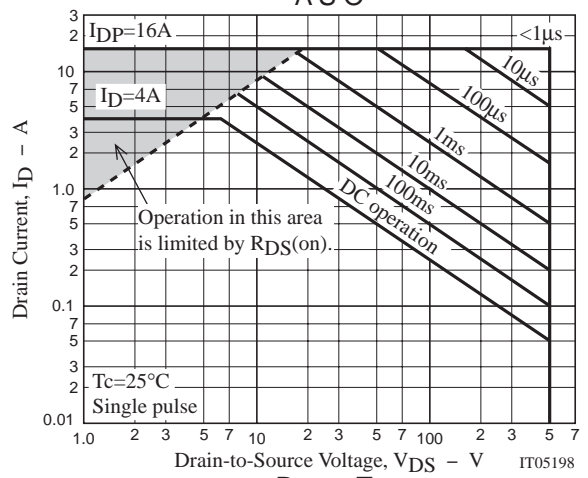
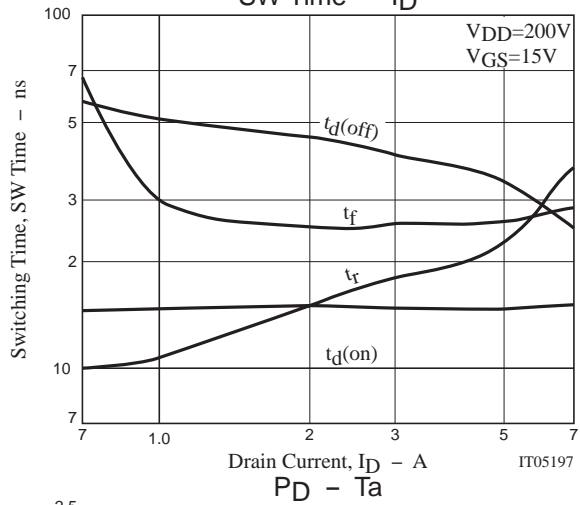
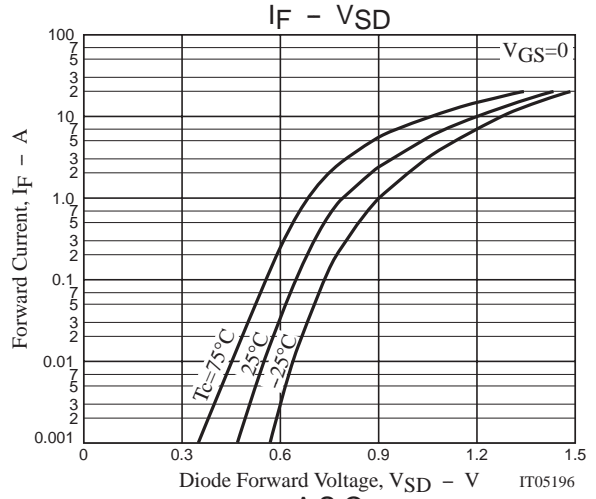
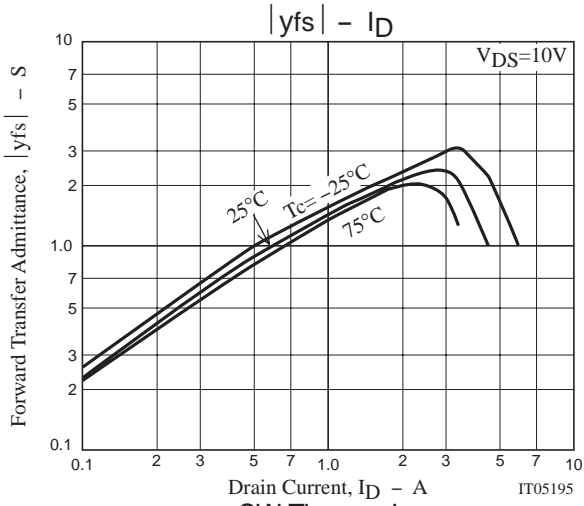
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| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--|--------------|-----------------------------------|---------|------|-----|----------|
| | | | min | typ | max | |
| Static Drain-to-Source On-State Resistance | $R_{DS(on)}$ | $I_D=2A, V_{GS}=15V$ | | 1.2 | 1.6 | Ω |
| Input Capacitance | C_{iss} | $V_{DS}=20V, f=1MHz$ | | 550 | | pF |
| Output Capacitance | C_{oss} | $V_{DS}=20V, f=1MHz$ | | 190 | | pF |
| Reverse Transfer Capacitance | C_{rss} | $V_{DS}=20V, f=1MHz$ | | 95 | | pF |
| Total Gate Charge | Q_g | $V_{DS}=200V, I_D=4A, V_{GS}=10V$ | | 15 | | nC |
| Turn-ON Delay Time | $t_d(on)$ | See specified Test Circuit. | | 15 | | ns |
| Rise Time | t_r | See specified Test Circuit. | | 15 | | ns |
| Turn-OFF Delay Time | $t_d(off)$ | See specified Test Circuit. | | 45 | | ns |
| Fall Time | t_f | See specified Test Circuit. | | 25 | | ns |
| Diode Forward Voltage | V_{SD} | $I_S=4A, V_{GS}=0$ | | 0.95 | 1.2 | V |

Switching Time Test Circuit



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