



2SJ522

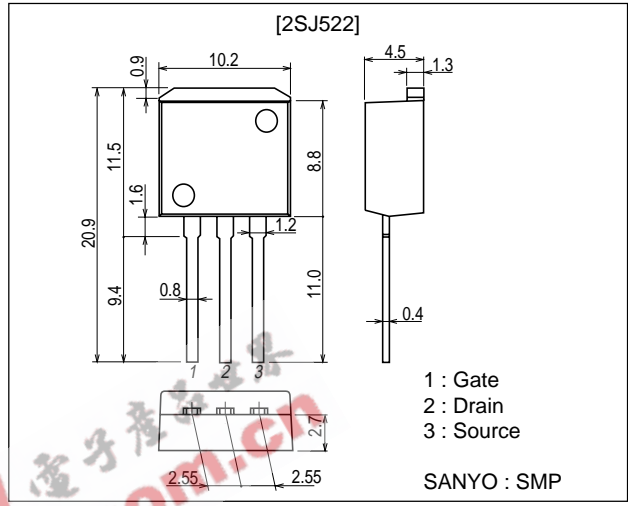
Ultrahigh-Speed Switching Applications

Features

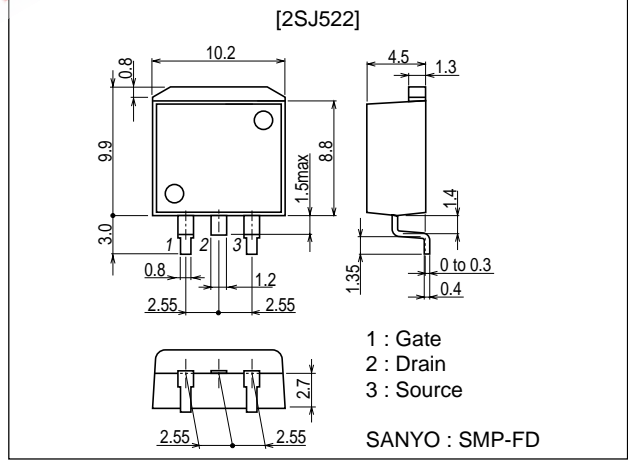
- Low ON-resistance.

Package Dimensions

unit : mm
2093A



unit : mm
2090A



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Specifications

Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|------------------|----------------------|-------------|------|
| Drain-to-Source Voltage | V _{DSS} | | -400 | V |
| Gate-to-Source Voltage | V _{GSS} | | ±30 | V |
| Drain Current (DC) | I _D | | -5 | A |
| Drain Current (Pulse) | I _{DP} | | -20 | A |
| Allowable Power Dissipation | P _D | | 1.65 | W |
| | | T _c =25°C | 70 | W |
| Channel Temperature | T _{ch} | | 150 | °C |
| Storage Temperature | T _{stg} | | -55 to +150 | °C |

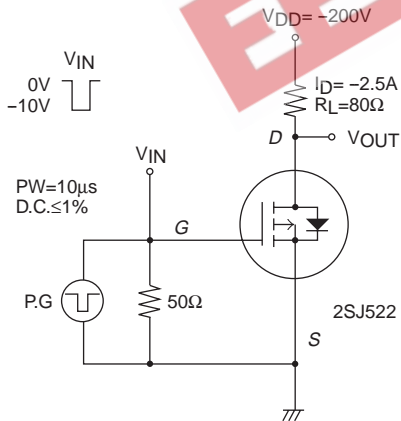
Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--|----------------------|--|---------|------|------|------|
| | | | min | typ | max | |
| Drain-to-Source Breakdown Voltage | V _{(BR)DSS} | I _D =-10mA, V _{GS} =0 | -400 | | | V |
| Zero-Gate Voltage Drain Current | I _{DSS} | V _{DS} =-320V, 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} =-10V, I _D =-2.5A | 1.3 | 2.6 | | S |
| Static Drain-to-Source On-State Resistance | R _{DS(on)} | I _D =-2.5A, V _{GS} =-10V | | 1.5 | 2.0 | Ω |
| Input Capacitance | C _{iss} | V _{DS} =-20V, f=1MHz | | 1500 | | pF |
| Output Capacitance | C _{oss} | V _{DS} =-20V, f=1MHz | | 240 | | pF |
| Reverse Transfer Capacitance | C _{rss} | V _{DS} =-20V, f=1MHz | | 90 | | pF |
| Turn-ON Delay Time | t _{d(on)} | See specified Test Circuit. | | 25 | | ns |
| Rise Time | t _r | See specified Test Circuit. | | 70 | | ns |
| Turn-OFF Delay Time | t _{d(off)} | See specified Test Circuit. | | 340 | | ns |
| Fall Time | t _f | See specified Test Circuit. | | 150 | | ns |
| Diode Forward Voltage | V _{SD} | I _S =-5A, V _{GS} =0 | | | -1.5 | V |

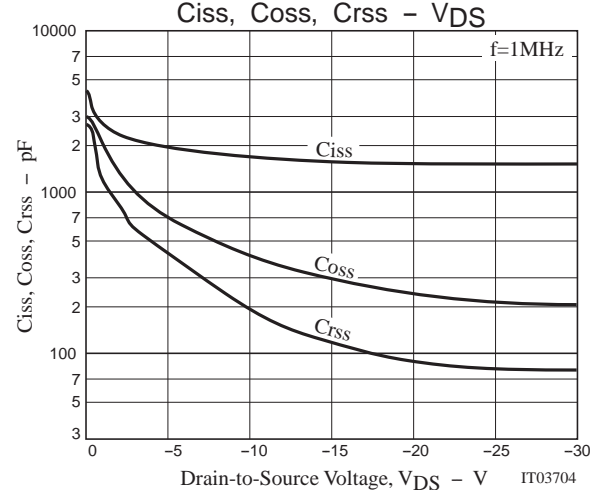
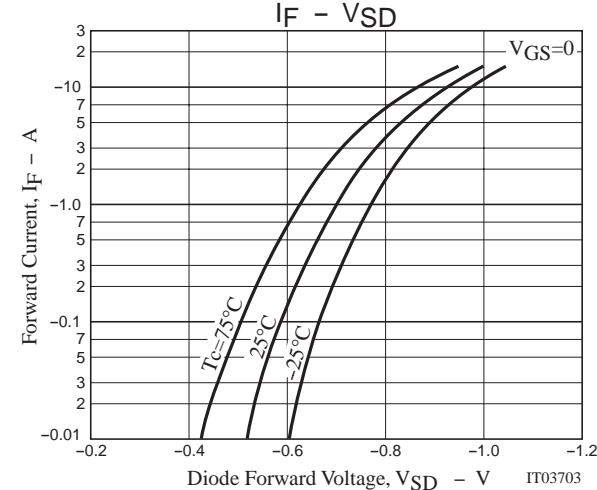
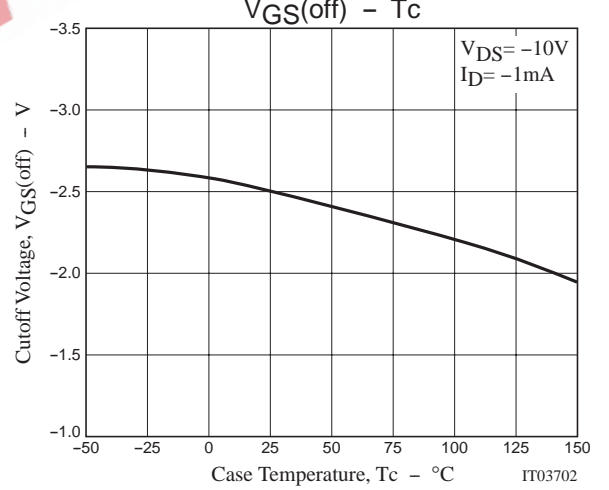
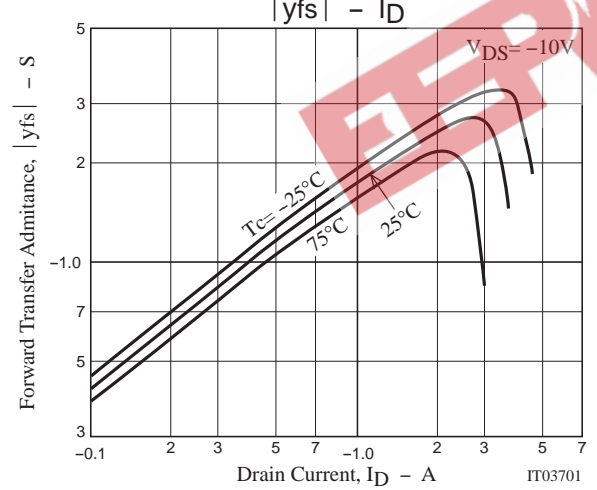
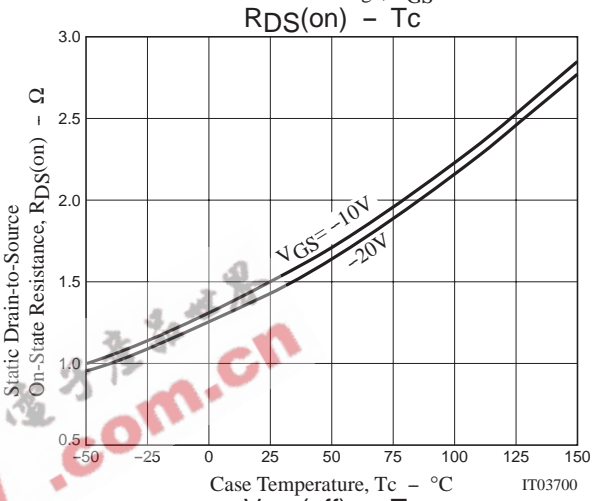
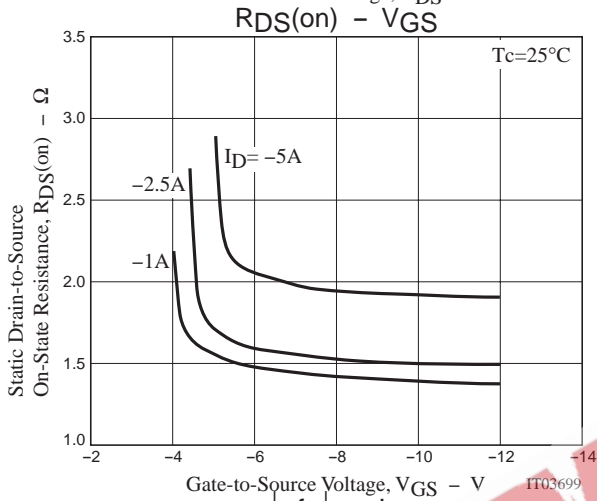
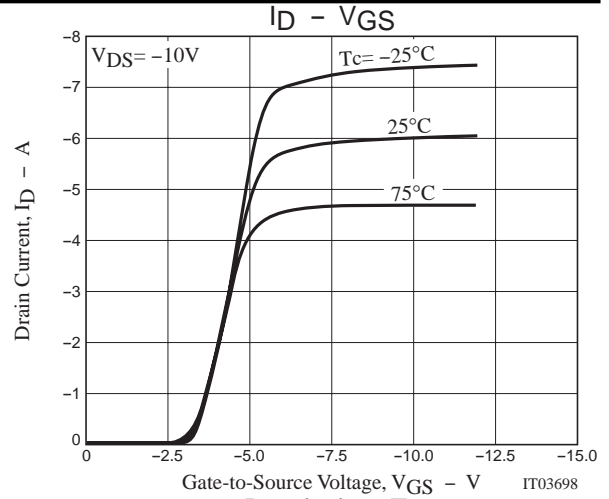
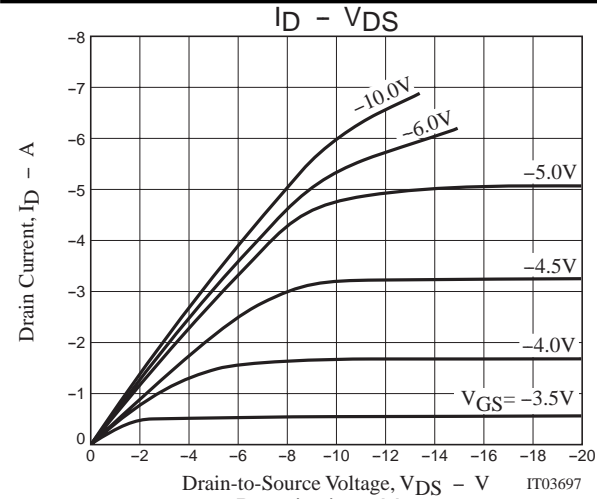
Marking : J522

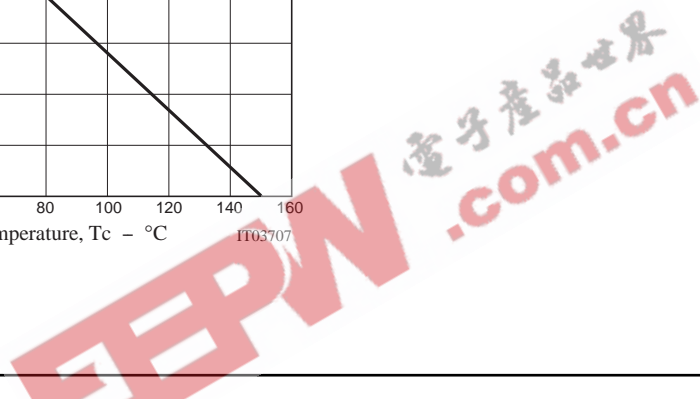
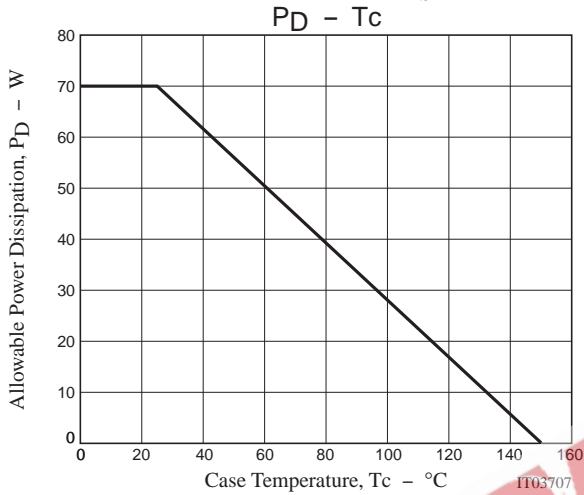
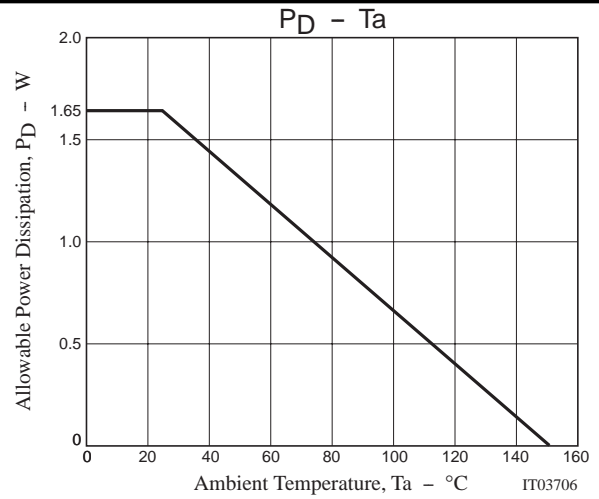
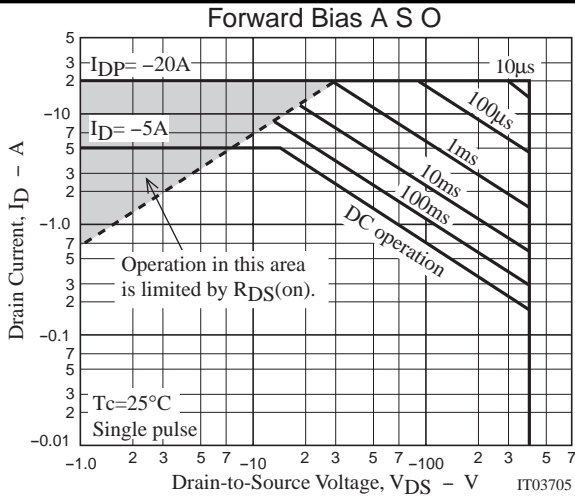
*(Note) Be careful in handling the 2SJ522 because it has no protection diode between gate and source.

Switching Time Test Circuit



2SJ522





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