

TOSHIBA Field Effect Transistor Silicon P Channel MOS Type

2SJ200

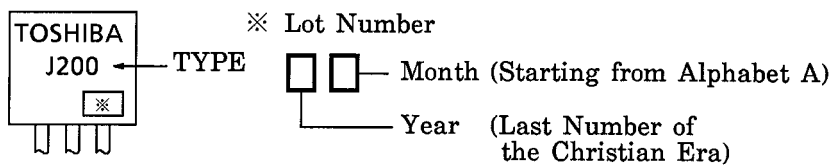
High Power Amplifier Application

- High breakdown voltage : $V_{DSS} = -180\text{ V}$
- High forward transfer admittance : $|Y_{fs}| = 4.0\text{ S (typ.)}$
- Complementary to 2SK1529

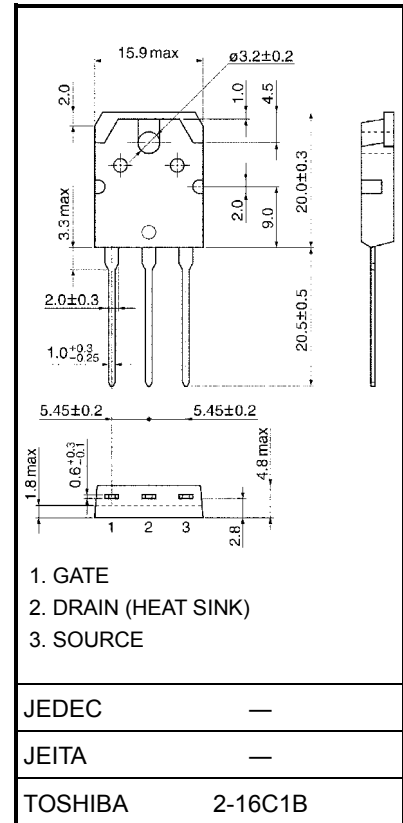
Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Characteristics | Symbol | Rating | Unit |
|--|-----------|----------|------------------|
| Drain-source voltage | V_{DSS} | -180 | V |
| Gate-source voltage | V_{GSS} | ± 20 | V |
| Drain current (Note 1) | I_D | -10 | A |
| Drain power dissipation ($T_c = 25^\circ\text{C}$) | P_D | 120 | W |
| Channel temperature | T_{ch} | 150 | $^\circ\text{C}$ |
| Storage temperature range | T_{stg} | -55~150 | $^\circ\text{C}$ |

Marking



Unit: mm



Weight: 4.6 g (typ.)

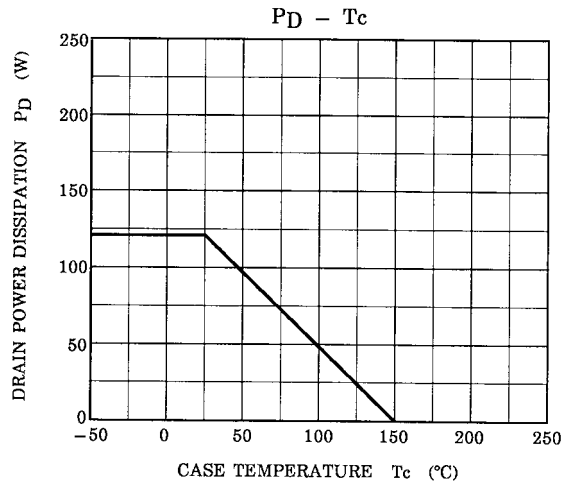
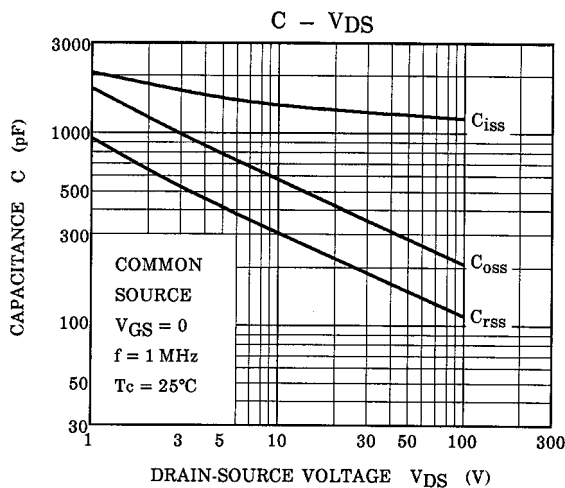
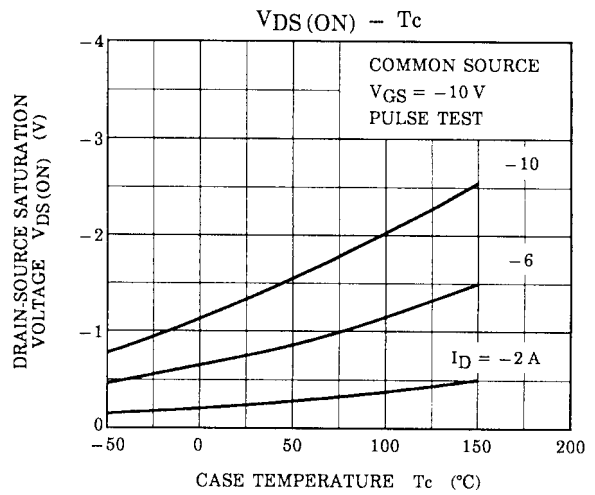
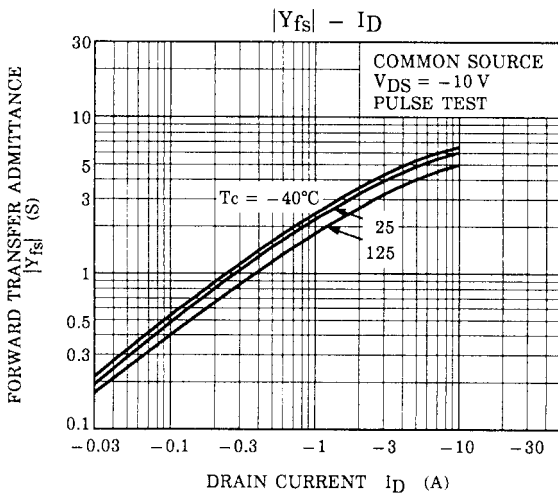
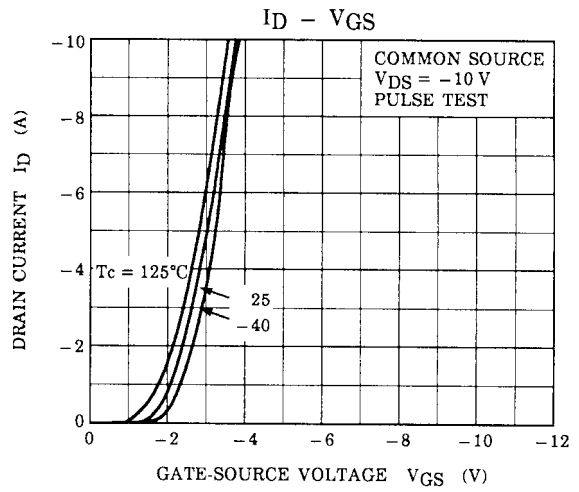
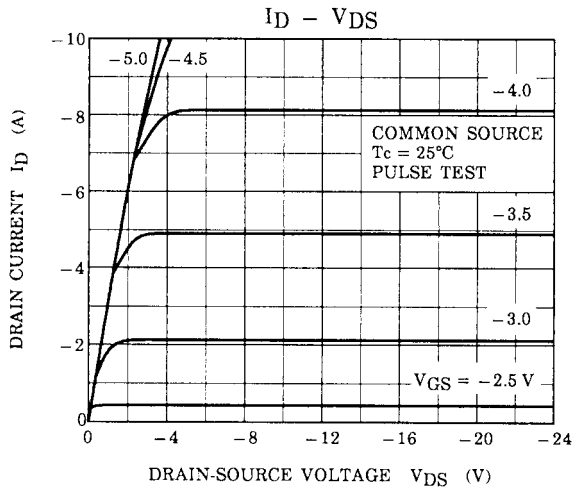
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

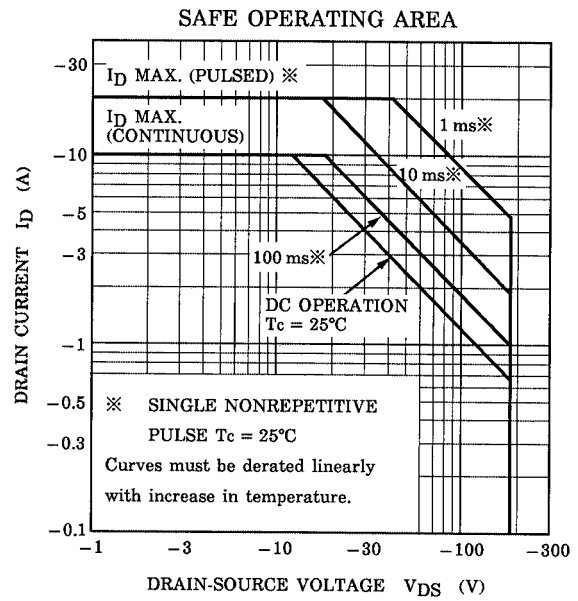
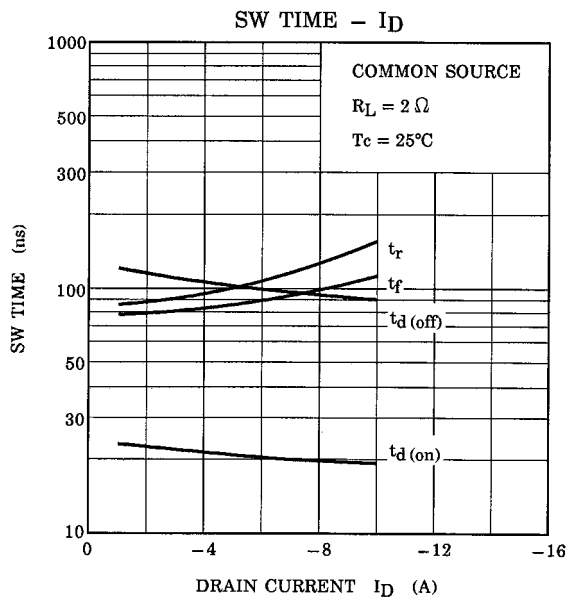
| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|--------------------------------------|---------------|---|------|------|-----------|---------------|
| Drain cut-off current | I_{DSS} | $V_{DS} = -180\text{ V}, V_{GS} = 0$ | — | — | -1.0 | mA |
| Gate leakage current | I_{GSS} | $V_{DS} = 0, V_{GS} = \pm 20\text{ V}$ | — | — | ± 0.5 | μA |
| Drain-source breakdown voltage | $V_{(BR)DSS}$ | $I_D = -10\text{ mA}, V_{GS} = 0$ | -180 | — | — | V |
| Gate-source cut-off voltage (Note 2) | $V_{GS(OFF)}$ | $V_{DS} = -10\text{ V}, I_D = -0.1\text{ A}$ | -0.8 | — | -2.8 | V |
| Drain-source saturation voltage | $V_{DS(ON)}$ | $I_D = -6\text{ A}, V_{GS} = -10\text{ V}$ | — | -1.5 | -5.0 | V |
| Forward transfer admittance | $ Y_{fs} $ | $V_{DS} = -10\text{ V}, I_D = -3\text{ A}$ | — | 4.0 | — | S |
| Input capacitance | C_{iss} | $V_{DS} = -30\text{ V}, V_{GS} = 0, f = 1\text{ MHz}$ | — | 1300 | — | pF |
| Output capacitance | C_{oss} | $V_{DS} = -30\text{ V}, V_{GS} = 0, f = 1\text{ MHz}$ | — | 350 | — | |
| Reverse transfer capacitance | C_{rss} | $V_{DS} = -30\text{ V}, V_{GS} = 0, f = 1\text{ MHz}$ | — | 200 | — | |

Note 1: Please use devices on condition that the channel temperature is below 150°C .

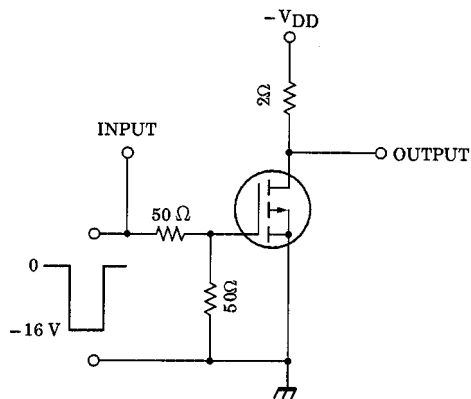
Note 2: $V_{GS(OFF)}$ Classification O: -0.8~-1.6, Y: -1.4~-2.8

This transistor is an electrostatic sensitive device. Please handle with caution.

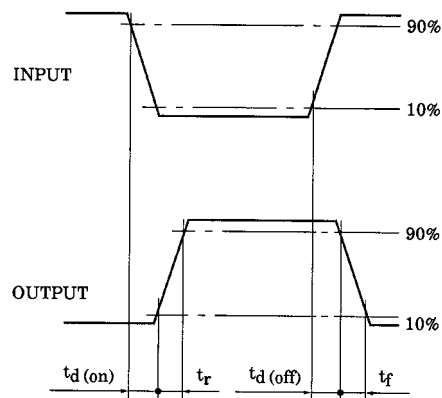




Switching Time Test Circuit



Waveforms



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