

TOSHIBA FIELD EFFECT TRANSISTOR SILICON P CHANNEL MOS TYPE

2SJ313

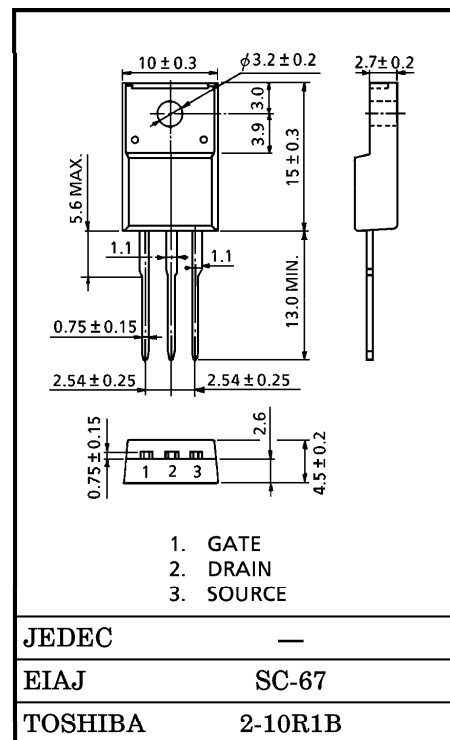
AUDIO FREQUENCY POWER AMPLIFIER APPLICATION

Unit in mm

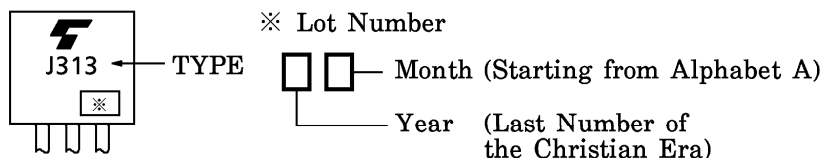
- High Breakdown Voltage : $V_{DSS} = -180V$
- High Forward Transfer Admittance : $|Y_{fs}| = 0.7S$ (Typ.)
- Complementary to 2SK2013

MAXIMUM RATINGS ($T_a = 25^\circ C$)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|--|-----------|----------|------------|
| Drain-Source Voltage | V_{DSS} | -180 | V |
| Gate-Source Voltage | V_{GSS} | ± 20 | V |
| Drain Current | I_D | -1 | A |
| Power Dissipation ($T_c = 25^\circ C$) | P_D | 25 | W |
| Channel Temperature | T_{ch} | 150 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -55~150 | $^\circ C$ |



MARKING



ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

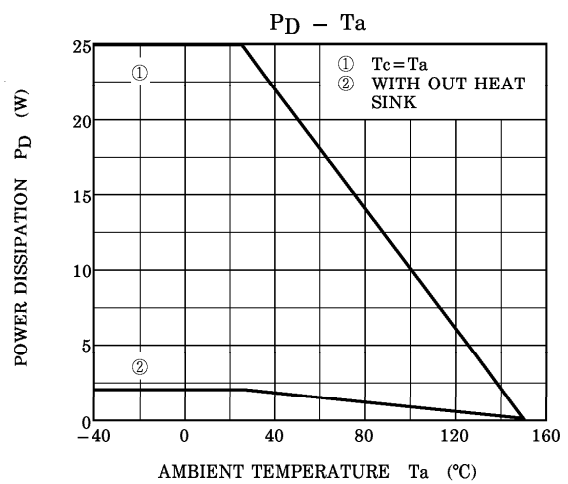
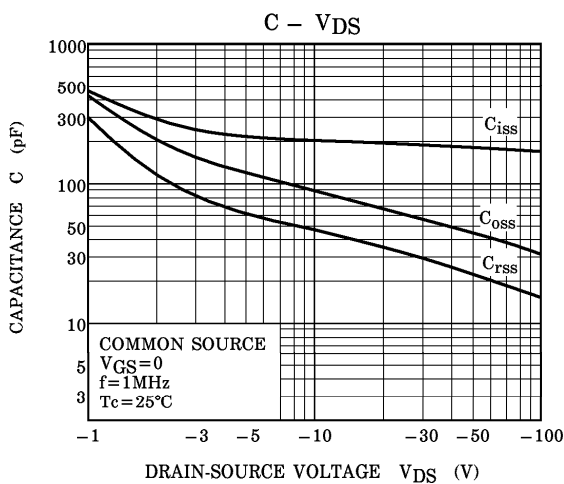
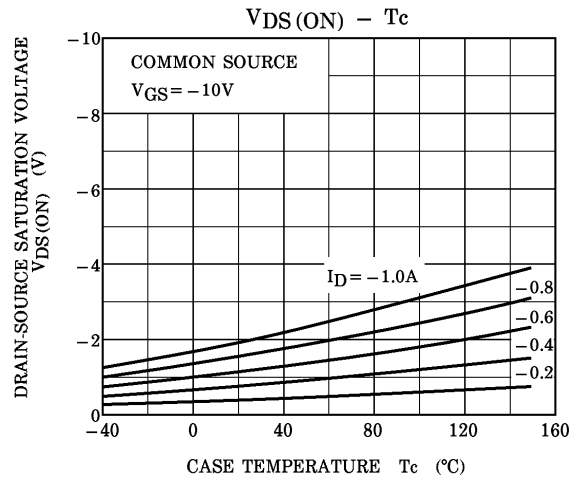
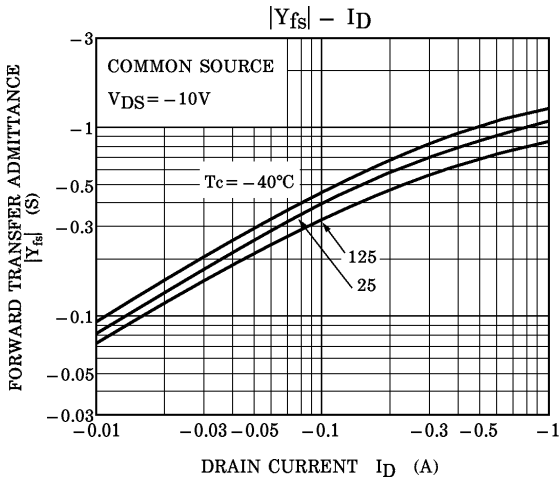
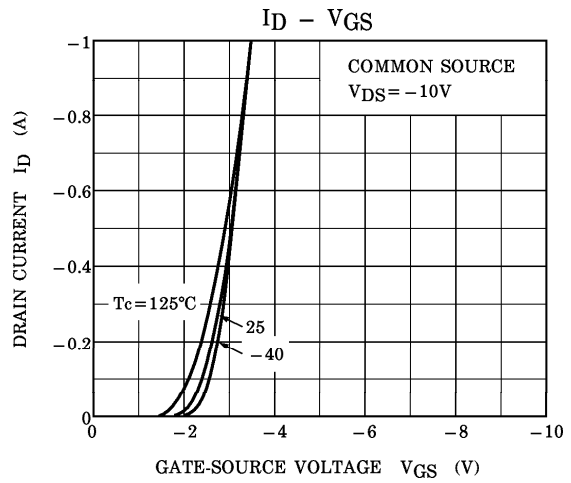
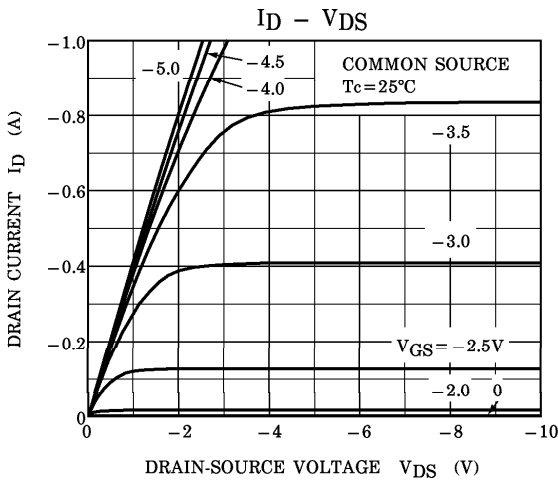
| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|---------------------------------|----------------------|---------------------------------------|------|------|-----------|------|
| Gate Leakage Current | I_{GSS} | $V_{DS} = 0, V_{GS} = \pm 20V$ | — | — | ± 100 | nA |
| Drain-Source Breakdown Voltage | $V_{(BR)DSS}$ | $I_D = -10mA, V_{GS} = 0$ | -180 | — | — | V |
| Gate-Source Cut-off Current | $V_{GS(OFF)}$ (Note) | $V_{DS} = -10V, I_D = -10mA$ | -0.8 | — | -2.8 | V |
| Drain-Source Saturation Voltage | $V_{DS(ON)}$ | $I_D = -0.6A, V_{GS} = -10V$ | — | -1.2 | -3.0 | V |
| Forward Transfer Admittance | $ Y_{fs} $ | $V_{DS} = -10V, I_D = -0.3A$ | — | 0.7 | — | S |
| Input Capacitance | C_{iss} | $V_{DS} = -10V, V_{GS} = 0, f = 1MHz$ | — | 210 | — | pF |
| Output Capacitance | C_{oss} | | — | 90 | — | pF |
| Reverse Transfer Capacitance | C_{rss} | | — | 45 | — | pF |

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

**This transistor is the electrostatic sensitive device.
Please handle with caution.**

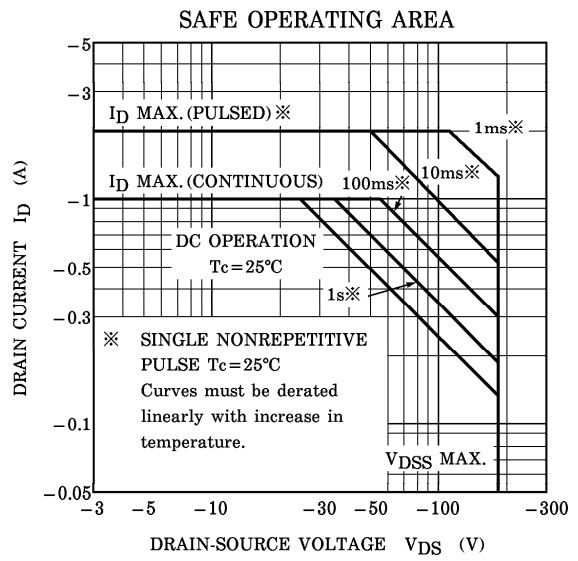
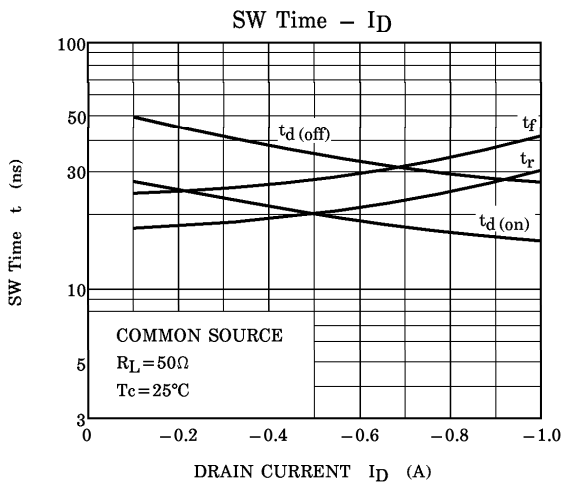
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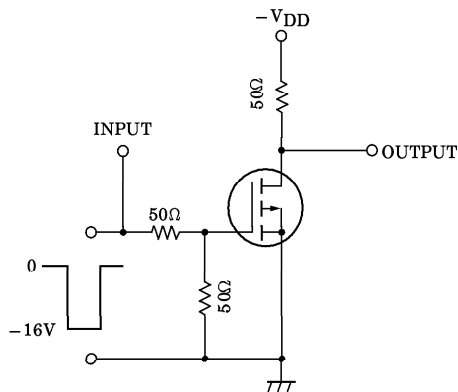


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TEST CIRCUIT



WAVEFORMS

