

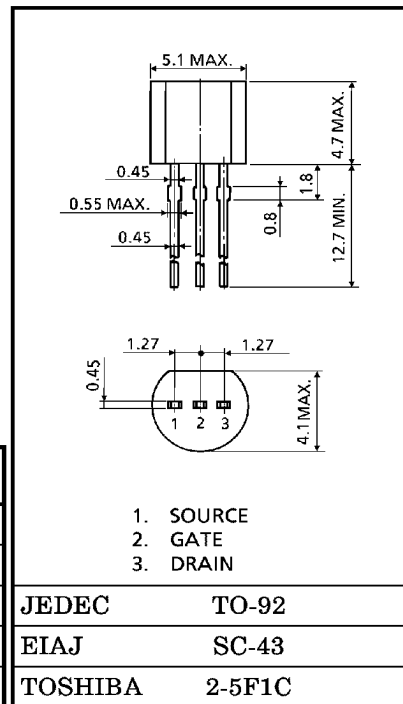
TOSHIBA FIELD EFFECT TRANSISTOR SILICON P CHANNEL JUNCTION TYPE

2SJ103

FOR AUDIO AMPLIFIER, ANALOG SWITCH, CONSTANT CURRENT AND IMPEDANCE CONVERTER APPLICATIONS

Unit in mm

- High Breakdown Voltage : $V_{GDS}=50V$
- High Input Impedance : $I_{GSS}=1.0nA$ (Max.) ($V_{GS}=30V$)
- Low $R_{DS(ON)}$: $R_{DS(ON)}=270\Omega$ (Typ.) ($I_{DSS}=-5mA$)
- Complimentary to 2SK246



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

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---------------------------|-----------|---------|------------|
| Gate-Drain Voltage | V_{GDS} | 50 | V |
| Gate Current | I_G | -10 | mA |
| Drain Power Dissipation | P_D | 300 | mW |
| Junction Temperature | T_j | 125 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -55~125 | $^\circ C$ |

Weight : 0.21g

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

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|------------------------------|---------------------|--|------|------|------|----------|
| Gate Cut-off Current | I_{GSS} | $V_{GS}=30V, V_{DS}=0$ | — | — | 1.0 | nA |
| Gate-Drain Breakdown Voltage | $V_{(BR)GDS}$ | $V_{DS}=0, I_G=100\mu A$ | 50 | — | — | V |
| Drain Current | I_{DSS} (Note) | $V_{DS}=-10V, V_{GS}=0$ | -1.2 | — | -14 | mA |
| Gate-Source Cut-off Voltage | $V_{GS(OFF)}$ | $V_{DS}=-10V, I_D=-0.1\mu A$ | 0.3 | — | 6.0 | V |
| Forward Transfer Admittance | $ Y_{fs} $ | $V_{DS}=-10V, V_{GS}=0, f=1kHz$ | 1.0 | 4.0 | — | mS |
| Drain-Source ON Resistance | $R_{DS(ON)}$ | $V_{DS}=-10mV, V_{GS}=0, I_{DSS}=-5mA$ | — | 270 | — | Ω |
| Input Capacitance | C_{iss} | $V_{DS}=-10V, V_{GS}=0, f=1MHz$ | — | 18 | — | pF |
| Reverse Transfer Capacitance | C_{rss} | $V_{DG}=-10V, I_D=0, f=1MHz$ | — | 3.6 | — | pF |

Note : I_{DSS} Classification Y : -1.2~-3.0mA, GR : -2.6~-6.5mA, BL : -6~-14mA

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