

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1150

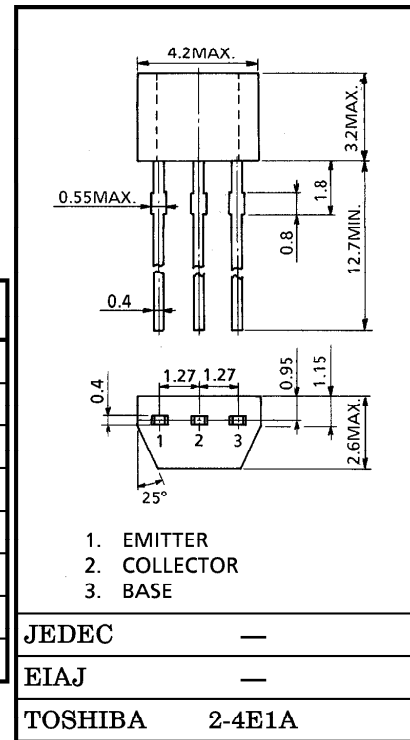
LOW FREQUENCY AMPLIFIER APPLICATIONS

Unit in mm

- High h_{FE} : $h_{FE} = 100 \sim 320$
- Complementary to 2SC2710.

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

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|---------|------------------|
| Collector-Base Voltage | V_{CB0} | -35 | V |
| Collector-Emitter Voltage | V_{CEO} | -30 | V |
| Emitter-Base Voltage | V_{EB0} | -5 | V |
| Collector Current | I_C | -800 | mA |
| Base Current | I_B | -160 | mA |
| Collector Power Dissipation | P_C | 300 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -55~150 | $^\circ\text{C}$ |



Weight : 0.13g

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

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|-----------------------|--|------|------|------|---------------|
| Collector Cut-off Current | I_{CBO} | $V_{CB} = -30\text{V}, I_E = 0$ | — | — | -0.1 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB} = -5\text{V}, I_C = 0$ | — | — | -0.1 | μA |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = -10\text{mA}, I_B = 0$ | -30 | — | — | V |
| DC Current Gain | $h_{FE}(1)$ (Note) | $V_{CE} = -1\text{V}, I_C = -100\text{mA}$ | 100 | — | 320 | V |
| | $h_{FE}(2)$ | $V_{CE} = -1\text{V}, I_C = -700\text{mA}$ | 35 | — | — | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = -500\text{mA}, I_B = -20\text{mA}$ | — | — | -0.7 | V |
| Base-Emitter Voltage | V_{BE} | $V_{CE} = -1\text{V}, I_C = -10\text{mA}$ | -0.5 | — | -0.8 | V |
| Transition Frequency | f_T | $V_{CE} = -5\text{V}, I_C = -10\text{mA}$ | — | 120 | — | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$ | — | 19 | — | pF |

Note : $h_{FE}(1)$ Classification O : 100~200 Y : 160~320

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