

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1313

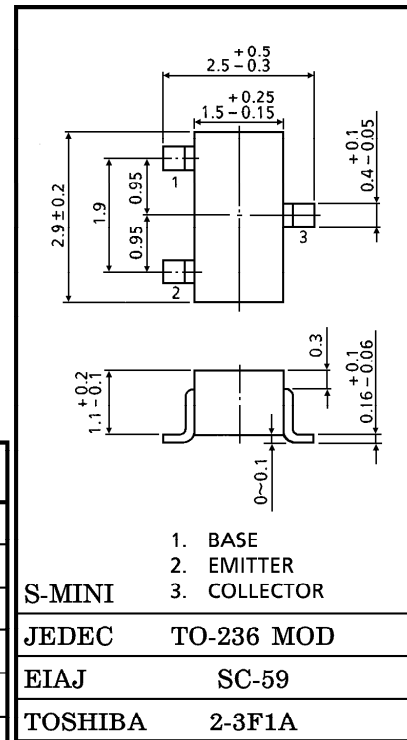
AUDIO FREQUENCY LOW POWER AMPLIFIER APPLICATIONS
 DRIVER STAGE AMPLIFIER APPLICATIONS
 SWITCHING APPLICATIONS

Unit in mm

- Excellent h_{FE} Linearity
 : $h_{FE}(2) = 25$ (Min.) at $V_{CE} = -6V, I_C = -400mA$
- High Voltage : $V_{CEO} = -50V$ (Min.)
- Complementary to 2SC3325
- Small Package

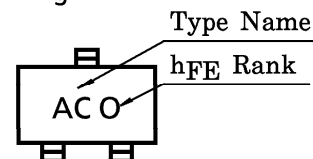
MAXIMUM RATINGS ($T_a = 25^\circ C$)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|---------|------------|
| Collector-Base Voltage | V_{CBO} | -50 | V |
| Collector-Emitter Voltage | V_{CEO} | -50 | V |
| Emitter-Base Voltage | V_{EBO} | -5 | V |
| Collector Current | I_C | -500 | mA |
| Base Current | I_B | -50 | mA |
| Collector Power Dissipation | P_C | 200 | mW |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -55~150 | $^\circ C$ |



Weight : 0.012g

Marking



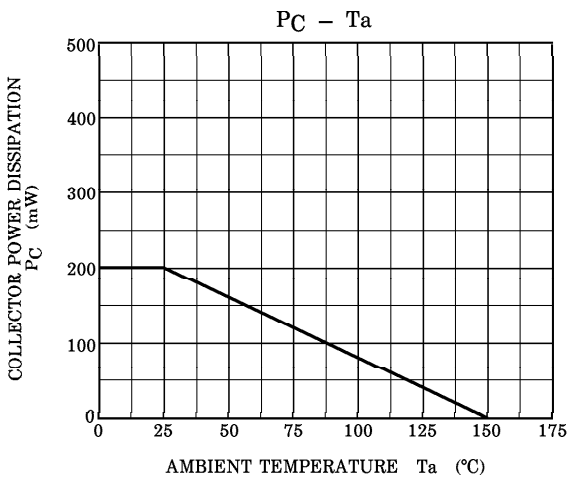
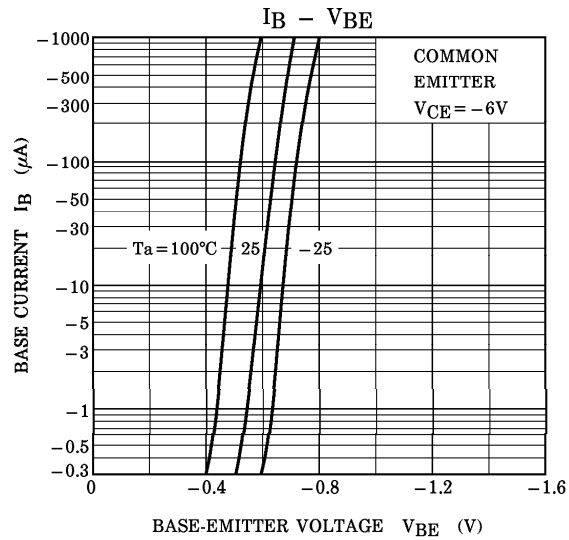
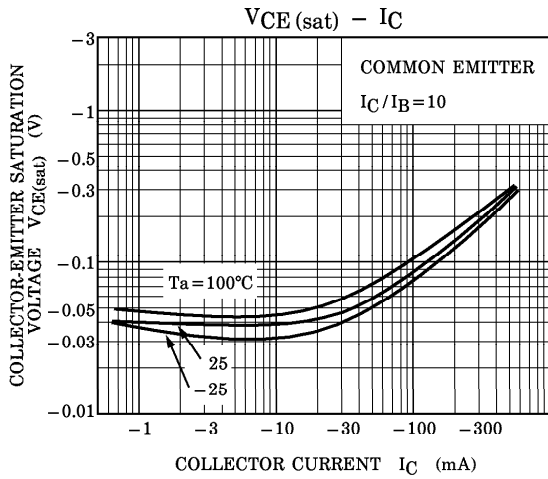
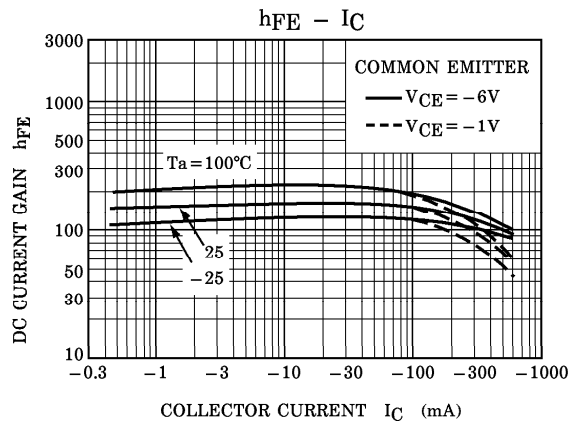
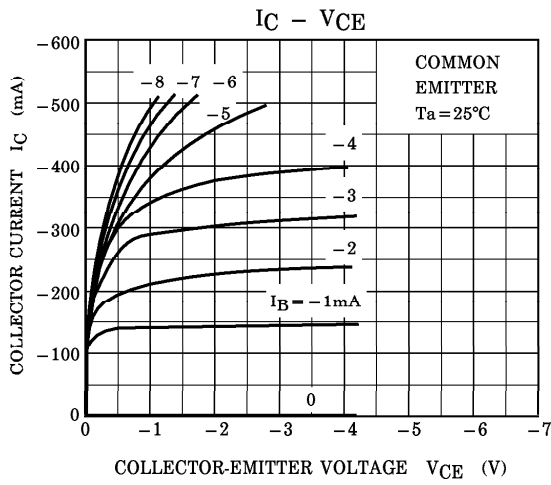
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|-----------------------|-----------------------------------|------|------|-------|---------|
| Collector Cut-off Current | I_{CBO} | $V_{CB} = -50V, I_E = 0$ | — | — | -0.1 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB} = -5V, I_C = 0$ | — | — | -0.1 | μA |
| DC Current Gain | $h_{FE}(1)$ (Note) | $V_{CE} = -1V, I_C = -100mA$ | 70 | — | 240 | |
| | $h_{FE}(2)$ (Note) | $V_{CE} = -6V, I_C = -400mA$ | 25 | — | — | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = -100mA, I_B = -10mA$ | — | -0.1 | -0.25 | V |
| Base-Emitter Voltage | V_{BE} | $V_{CE} = -1V, I_C = -100mA$ | — | -0.8 | -1.0 | V |
| Transition Frequency | f_T | $V_{CE} = -6V, I_C = -20mA$ | — | 200 | — | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB} = -6V, I_E = 0, f = 1MHz$ | — | 13 | — | pF |

Note : $h_{FE}(1)$ Classification O : 70~140, Y : 120~240
 $h_{FE}(2)$ Classification O : 25 (Min.) Y : 40 (Min.)

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