

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC2551

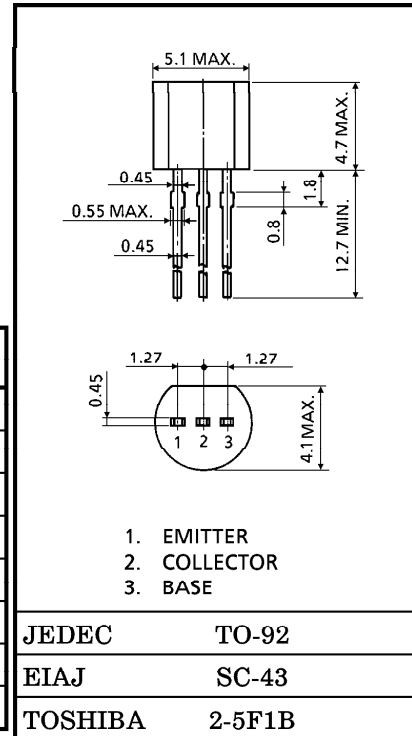
HIGHT VOLTAGE CONTROL APPLICATIONS
 PLASMA DISPLAY, NIXIE TUBE DRIVER APPLICATIONS
 CATHODE RAY TUBE BRIGHTNESS CONTROL APPLICATIONS

INDUSTRIAL APPLICATIONS
 Unit in mm

- High Voltage : $V_{CBO}=300V, V_{CEO}=300V$
- Low Saturation Voltage : $V_{CE(sat)}=0.5V(\text{Max.})$
- Small Collector Output Capacitance : $C_{ob}=3pF(\text{Typ.})$
- Complementary to 2SA1091.

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

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|---------|------------|
| Collector-Base Voltage | V_{CBO} | 300 | V |
| Collector-Emitter Voltage | V_{CEO} | 300 | V |
| Emitter-Base Voltage | V_{EBO} | 6 | V |
| Collector Current | I_C | 100 | mA |
| Base Current | I_B | 20 | mA |
| Collector Power Dissipation | P_C | 400 | mW |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -55~150 | $^\circ C$ |



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

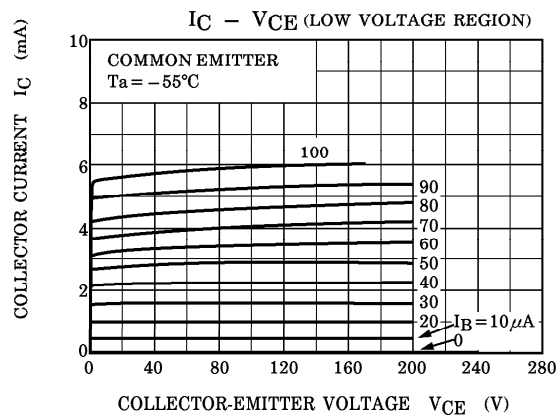
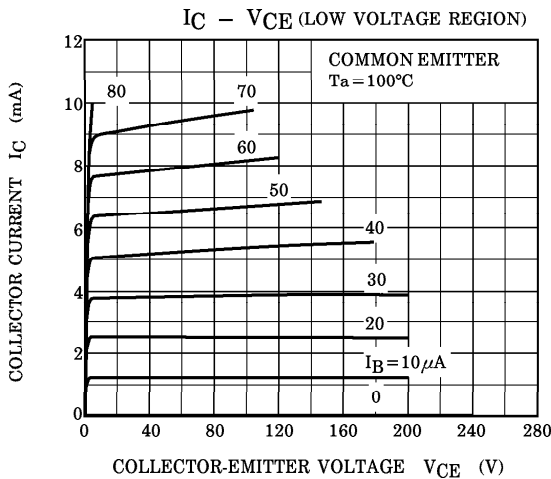
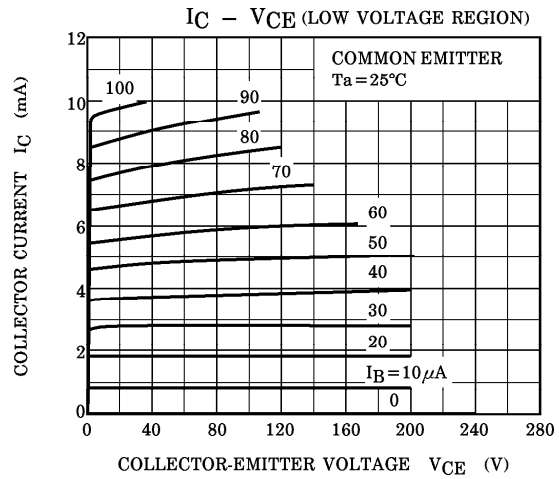
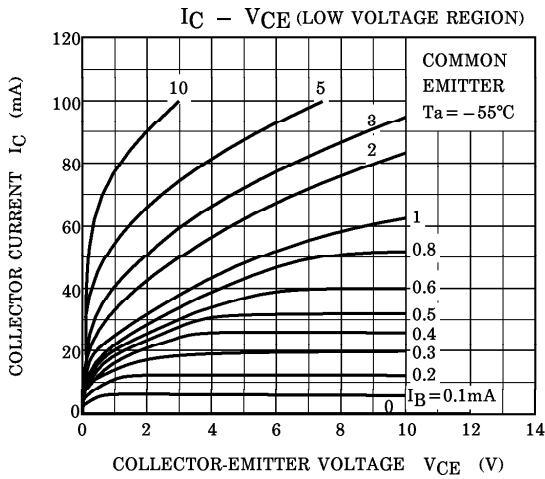
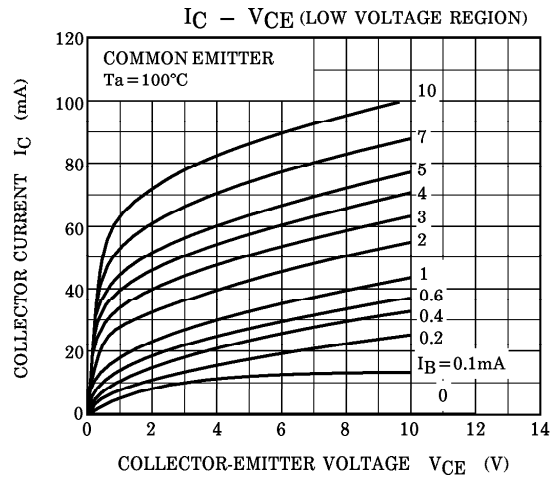
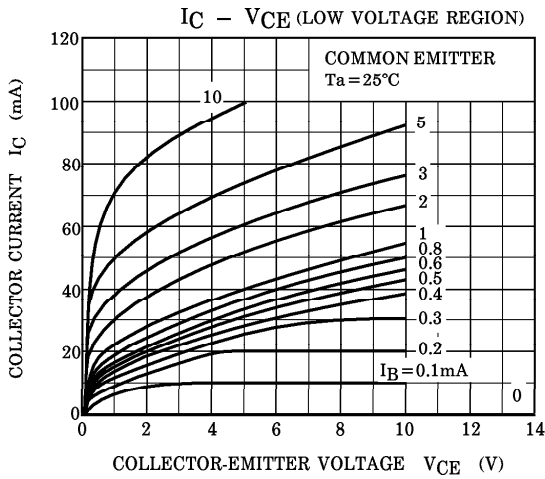
Weight : 0.21g

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|--------------------|-----------------------------|------|------|------|---------|
| Collector Cut-off Current | I_{CBO} | $V_{CB}=300V, I_E=0$ | — | — | 0.1 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=6V, I_C=0$ | — | — | 0.1 | μA |
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=0.1mA, I_E=0$ | 300 | — | — | V |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=1mA, I_B=0$ | 300 | — | — | V |
| DC Current Gain | $h_{FE(1)}$ (Note) | $V_{CE}=10V, I_C=20mA$ | 30 | — | 150 | |
| | $h_{FE(2)}$ | $V_{CE}=10V, I_C=1mA$ | 20 | — | — | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=20mA, I_B=2mA$ | — | — | 0.5 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=20mA, I_B=2mA$ | 50 | — | 1.2 | V |
| Transition Frequency | f_T | $V_{CE}=10V, I_C=20mA$ | — | 80 | — | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB}=20V, I_E=0, f=1MHz$ | — | 3 | 4 | pF |

Note : $h_{FE(1)}$ Classification R : 30~90, O : 50~150

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