

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

# 2SC4479

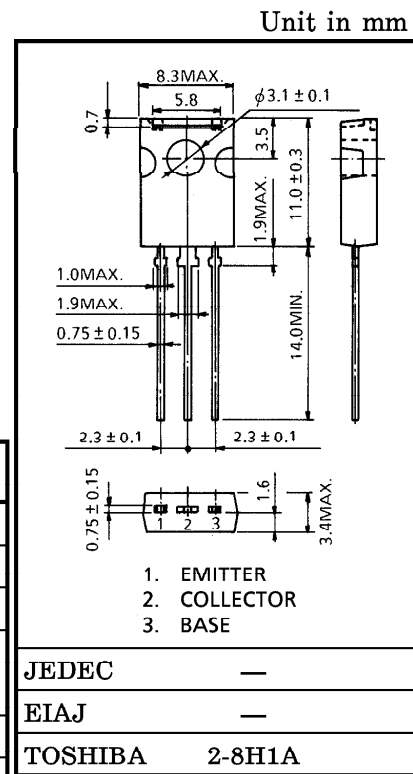
VIDEO OUTPUT APPLICATIONS FOR SUPER HIGH RESOLUTION DISPLAY.

HIGH SPEED SWITCHING APPLICATIONS.

- High Transition Frequency :  $f_T = 1.1\text{GHz}$  (Typ.)
- Low Collector Output Capacitance :  $C_{ob} = 4.2\text{pF}$  (Typ.)
- High Voltage :  $V_{CEO} = 100\text{V}$
- Collector Metal (Fin) is Fully Covered with Mold Resin.

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

| CHARACTERISTIC              |                          | SYMBOL    | RATING  | UNIT             |
|-----------------------------|--------------------------|-----------|---------|------------------|
| Collector-Base Voltage      |                          | $V_{CBO}$ | 100     | V                |
| Collector-Emitter Voltage   |                          | $V_{CEO}$ | 100     | V                |
| Emitter-Base Voltage        |                          | $V_{EBO}$ | 3       | V                |
| Collector Current           | DC                       | $I_C$     | 0.5     | A                |
|                             | Pulse                    | $I_{CP}$  | 1.0     |                  |
| Base Current                |                          | $I_B$     | 0.2     | A                |
| Collector Power Dissipation | $T_a = 25^\circ\text{C}$ | $P_C$     | 1.5     | W                |
|                             | $T_c = 25^\circ\text{C}$ |           | 10      |                  |
| Junction Temperature        |                          | $T_j$     | 150     | $^\circ\text{C}$ |
| Storage Temperature Range   |                          | $T_{stg}$ | -55~150 | $^\circ\text{C}$ |



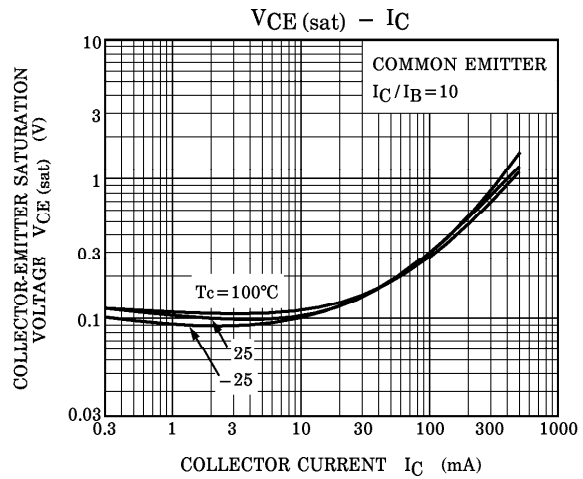
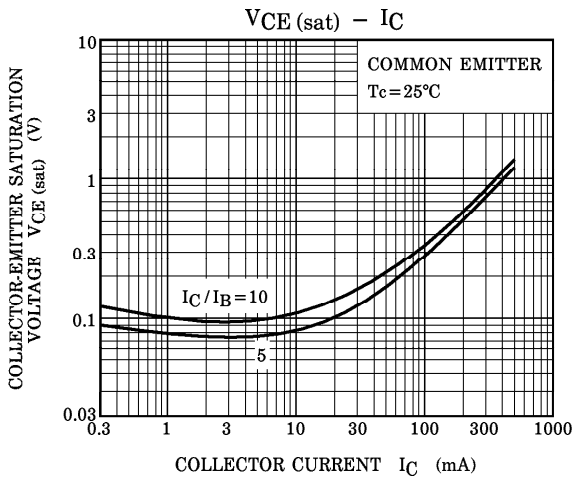
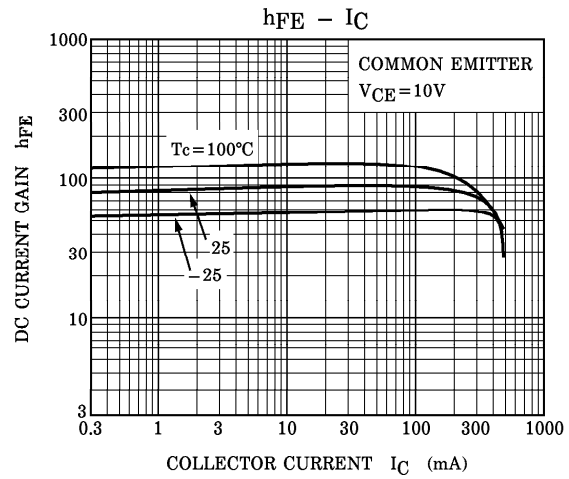
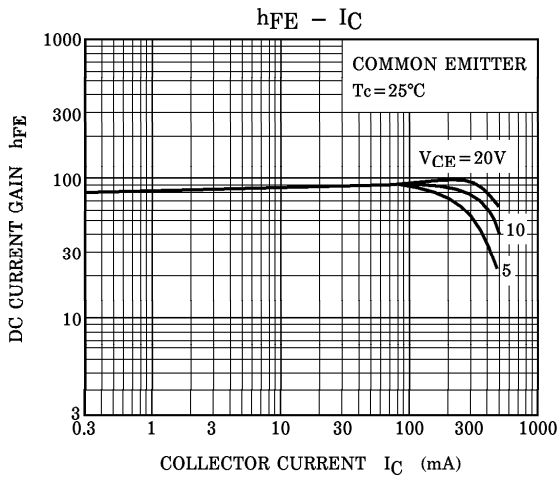
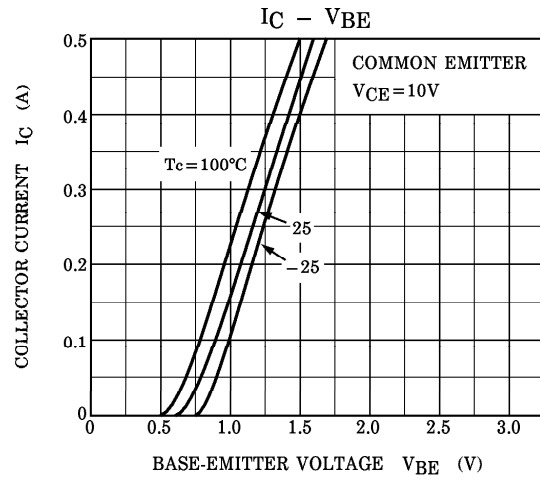
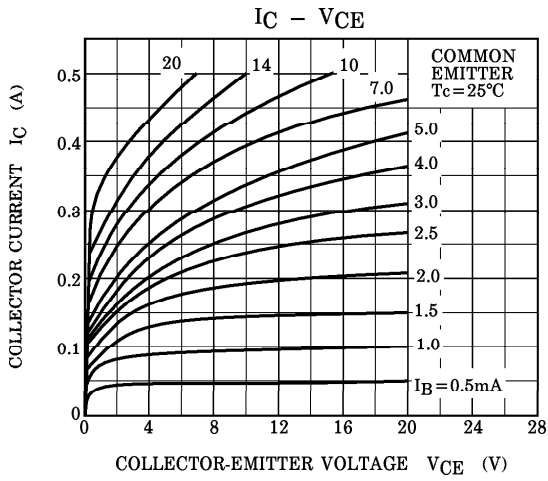
Weight : 0.82g

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

| CHARACTERISTIC                       | SYMBOL        | TEST CONDITION                                  | MIN. | TYP. | MAX. | UNIT          |
|--------------------------------------|---------------|---|------|------|------|---------------|
| Collector Cut-off Current            | $I_{CBO}$     | $V_{CB} = 100\text{V}, I_E = 0$                 | —    | —    | 100  | $\mu\text{A}$ |
| Emitter Cut-off Current              | $I_{EBO}$     | $V_{EB} = 3\text{V}, I_C = 0$                   | —    | —    | 100  | $\mu\text{A}$ |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$ | $I_C = 1\text{mA}, I_B = 0$                     | 100  | —    | —    | V             |
| DC Current Gain                      | $h_{FE(1)}$   | $V_{CE} = 10\text{V}, I_C = 100\text{mA}$       | 30   | —    | 240  |               |
|                                      | $h_{FE(2)}$   | $V_{CE} = 10\text{V}, I_C = 300\text{mA}$       | 20   | —    | —    |               |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 300\text{mA}, I_B = 30\text{mA}$         | —    | —    | 3.0  | V             |
| Base-Emitter Saturation Voltage      | $V_{BE(sat)}$ | $I_C = 300\text{mA}, I_B = 30\text{mA}$         | —    | —    | 2.5  | V             |
| Transition Frequency                 | $f_T$         | $V_{CE} = 10\text{V}, I_C = 100\text{mA}$       | 800  | 1100 | —    | MHz           |
| Collector Output Capacitance         | $C_{ob}$      | $V_{CB} = 30\text{V}, f = 1\text{MHz}, I_E = 0$ | —    | 4.2  | 5.0  | pF            |

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