

SANYO

No.1756B

2SC3595

NPN Epitaxial Planar Silicon Transistor

Ultrahigh-Definition
CRT Display Applications**Applications**

- Ultrahigh-definition CRT display.
- Video output driver.
- Wideband amplifiers.

Features

- High f_T : f_T typ = 2.0GHz.
- High current: I_C = 500mA.

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

| | | | unit |
|------------------------------|-----------|-------------|------------------|
| Collector-to-Base Voltage | V_{CB0} | 30 | V |
| Collector-to-Emitter Voltage | V_{CEO} | 20 | V |
| Emitter-to-Base Voltage | V_{EBO} | 3 | V |
| Collector Current | I_C | 500 | mA |
| Collector Current (Pulse) | I_{CP} | 1000 | mA |
| Collector Dissipation | P_C | 1.2 | W |
| | | 5 | W |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

$T_c = 25^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

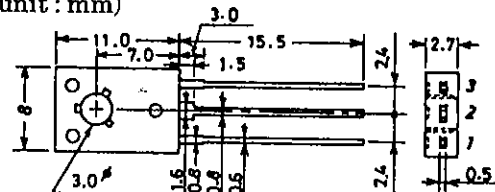
| | | | min | typ | max | unit |
|------------------------------|---------------|------------------------------------------|-----|------|------|---------------|
| Collector Cutoff Current | I_{CBO} | $V_{CB} = 20\text{V}, I_E = 0$ | | | 0.1 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = 2\text{V}$ | | | 5.0 | μA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE} = 5\text{V}, I_C = 50\text{mA}$ | 40* | | 200* | |
| | $h_{FE(2)}$ | $V_{CE} = 5\text{V}, I_C = 500\text{mA}$ | 20 | | | |
| Gain-Bandwidth Product | f_T | $V_{CE} = 5\text{V}, I_C = 100\text{mA}$ | | 2.0 | | GHz |
| C-E Saturation Voltage | $V_{CE(sat)}$ | $I_C = 300\text{mA}, I_B = 30\text{mA}$ | | 0.25 | 0.6 | V |
| B-E Saturation Voltage | $V_{BE(sat)}$ | $I_C = 300\text{mA}, I_B = 30\text{mA}$ | | 0.92 | 1.2 | V |
| C-B Breakdown Voltage | $V_{(BR)CBO}$ | $I_C = 10\mu\text{A}, I_E = 0$ | 30 | | | V |
| C-E Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = 1\text{mA}, R_{BE} = \infty$ | 20 | | | V |
| E-B Breakdown Voltage | $V_{(BR)EBO}$ | $I_E = 100\mu\text{A}, I_C = 0$ | 3 | | | V |
| Output Capacitance | C_{ob} | $V_{CB} = 10\text{V}, f = 1\text{MHz}$ | | 6.0 | | pF |
| Reverse Transfer Capacitance | C_{re} | $V_{CB} = 10\text{V}, f = 1\text{MHz}$ | | 4.6 | | pF |

* : The 2SC3595 is classified by 50mA h_{FE} as follows :

| | | | | | | | | |
|----|---|----|----|---|-----|-----|---|-----|
| 40 | C | 80 | 60 | D | 120 | 100 | E | 200 |
|----|---|----|----|---|-----|-----|---|-----|

Package Dimensions 2009B

(unit: mm)



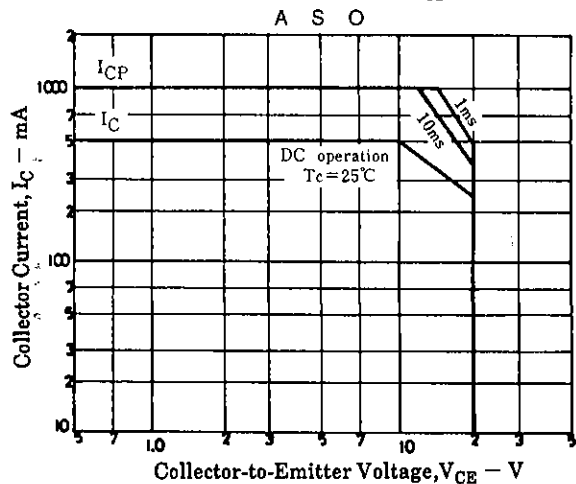
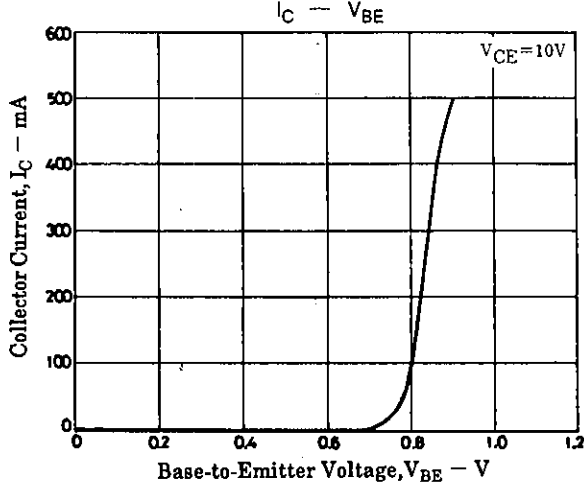
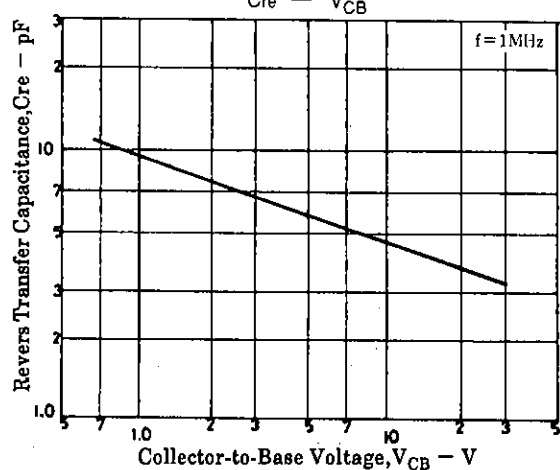
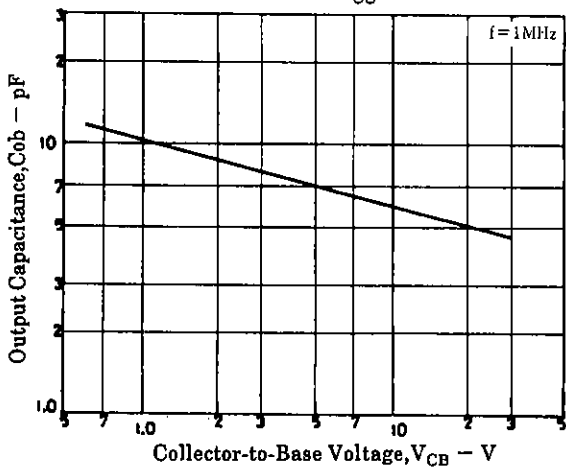
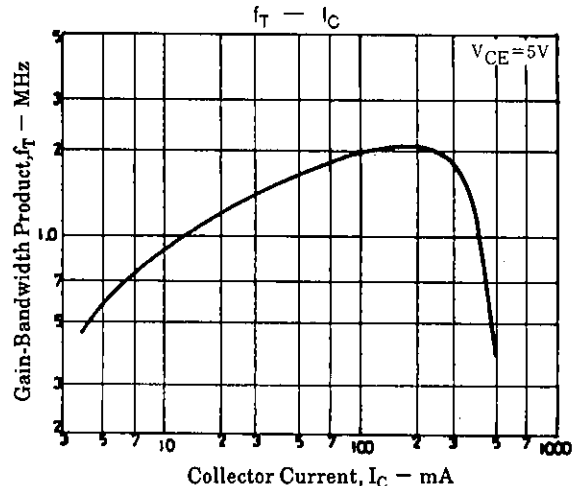
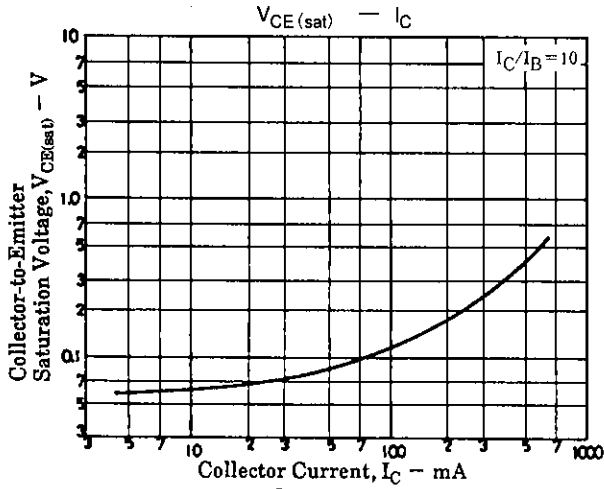
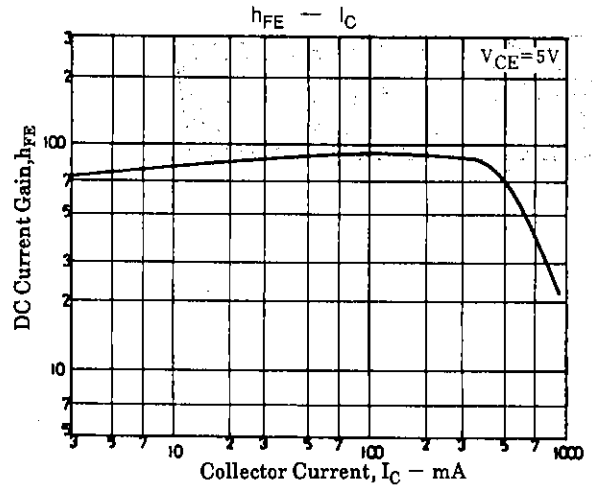
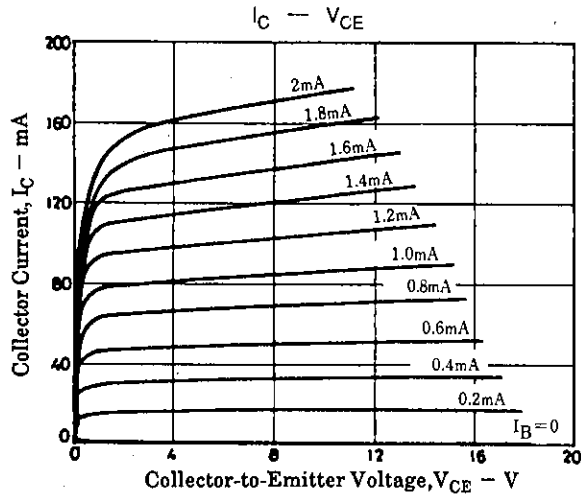
1: Emitter
2: Collector
3: Base

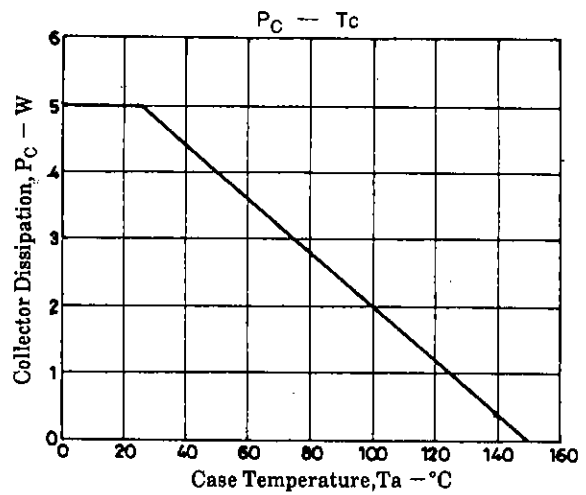
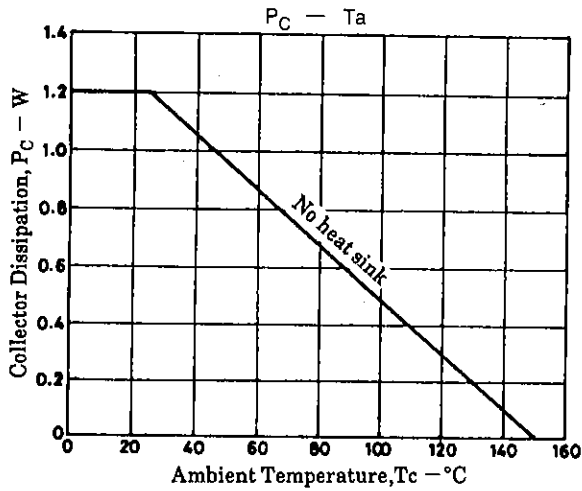
JEDEC: TO126

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