

# 2SA0794 (2SA794), 2SA0794A (2SA794A)

## Silicon PNP epitaxial planar type

For low-frequency output driver

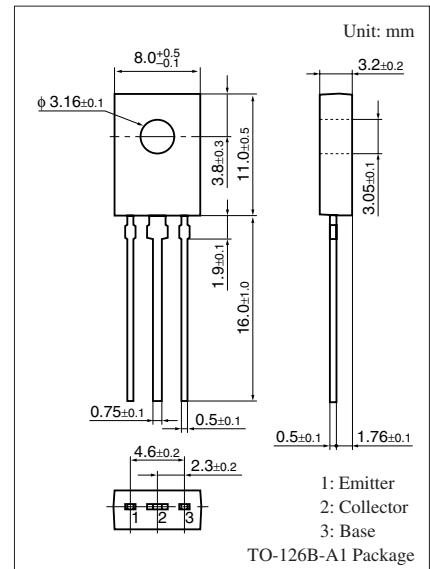
Complementary to 2SC1567, 2SC1567A

### ■ Features

- High collector-emitter voltage (Base open)  $V_{CEO}$
- Optimum for the driver stage of low-frequency and 40 W to 100 W output amplifier
- TO-126B package which requires no insulation plate for installation to the heat sink

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

| Parameter                                | Symbol    | Rating      | Unit             |   |
|--|-----------|-------------|------------------|---|
| Collector-base voltage<br>(Emitter open) | 2SA0794   | $V_{CBO}$   | -100             | V |
|  | 2SA0794A  |             | -120             |   |
| Collector-emitter voltage<br>(Base open) | 2SA0794   | $V_{CEO}$   | -100             | V |
|  | 2SA0794A  |             | -120             |   |
| Emitter-base voltage (Collector open)    | $V_{EBO}$ | -5          | V                |   |
| Collector current                        | $I_C$     | -0.5        | A                |   |
| Peak collector current                   | $I_{CP}$  | -1          | A                |   |
| Collector power dissipation              | $P_C$     | 1.2         | W                |   |
| Junction temperature                     | $T_j$     | 150         | $^\circ\text{C}$ |   |
| Storage temperature                      | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |   |



### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

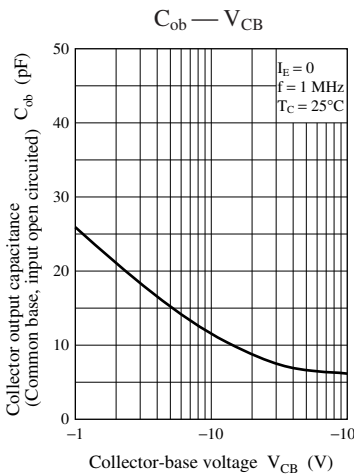
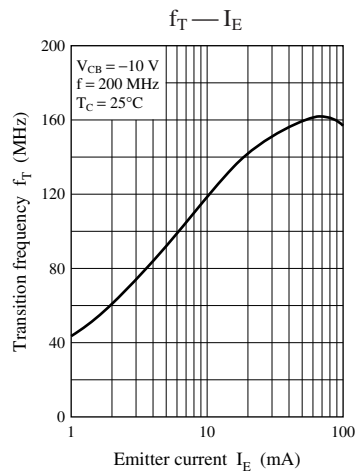
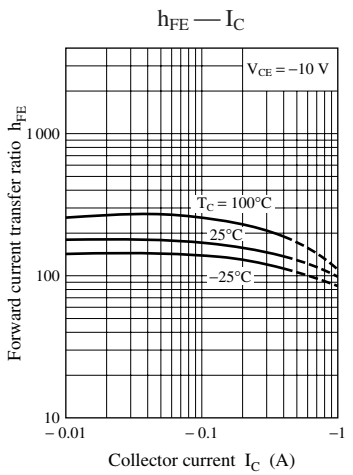
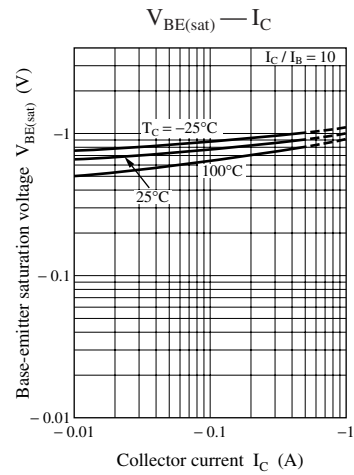
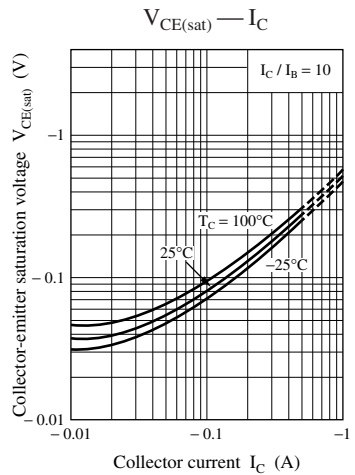
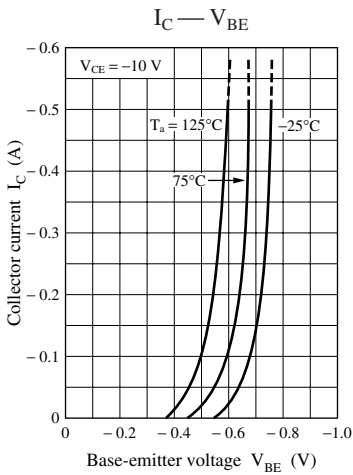
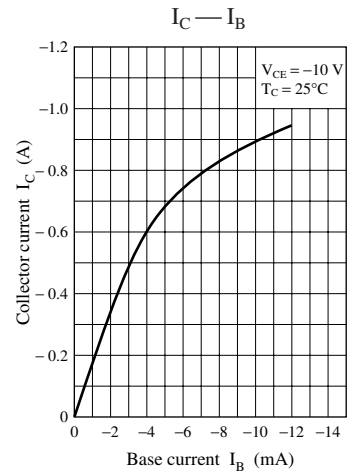
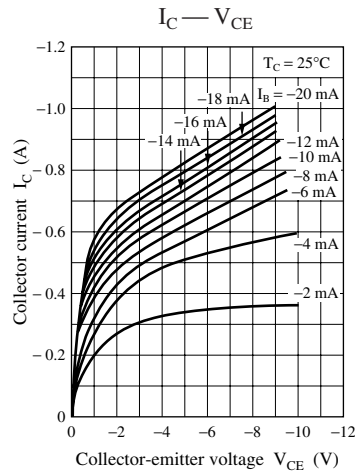
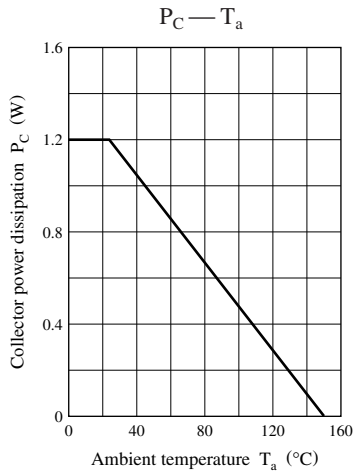
| Parameter   | Symbol        | Conditions   | Min                               | Typ   | Max   | Unit |
|---|---------------|--|-----------------------------------|-------|-------|------|
| Collector-emitter voltage<br>(Base open)                            | 2SA0794       | $V_{CEO}$  | $I_C = -100 \mu\text{A}, I_B = 0$ | -100  |       | V    |
|   | 2SA0794A      |  |                                   | -120  |       |      |
| Emitter-base voltage (Collector open)                               | $V_{EBO}$     | $I_E = -1 \mu\text{A}, I_C = 0$                                    | -5                                |       |       | V    |
| Forward current transfer ratio                                      | $h_{FE1}^*$   | $V_{CE} = -10 \text{ V}, I_C = -150 \text{ mA}$                    | 90                                |       | 220   | —    |
|   | $h_{FE2}$     | $V_{CE} = -5 \text{ V}, I_C = -500 \text{ mA}$                     | 50                                | 100   |       |      |
| Collector-emitter saturation voltage                                | $V_{CE(sat)}$ | $I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$                      |                                   | -0.2  | -0.4  | V    |
| Base-emitter saturation voltage                                     | $V_{BE(sat)}$ | $I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$                      |                                   | -0.85 | -1.20 | V    |
| Transition frequency  | $f_T$         | $V_{CB} = -10 \text{ V}, I_E = 50 \text{ mA}, f = 200 \text{ MHz}$ |                                   | 120   |       | MHz  |
| Collector output capacitance<br>(Common base, input open circuited) | $C_{ob}$      | $V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$               |                                   | 20    | 30    | pF   |

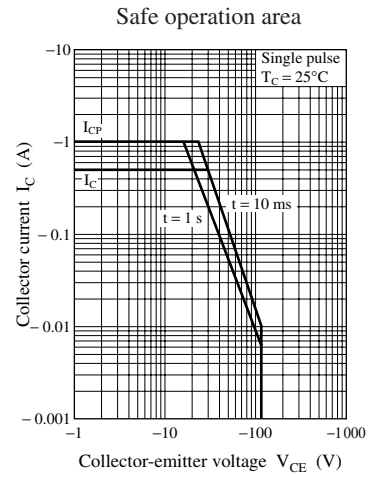
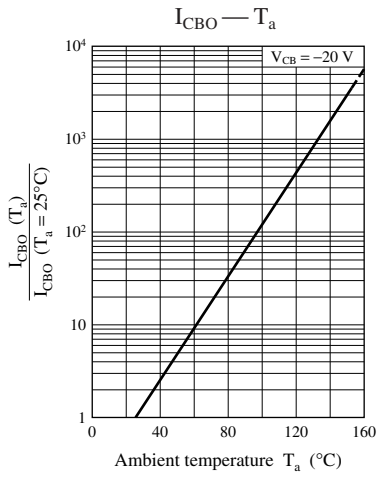
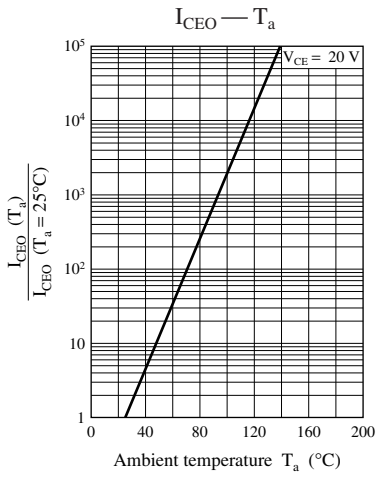
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. \*: Rank classification

| Rank      | Q         | R          |
|-----------|-----------|------------|
| $h_{FE1}$ | 90 to 155 | 130 to 220 |

Note) The part numbers in the parenthesis show conventional part number.





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