

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

Silicon PNP epitaxial planar type

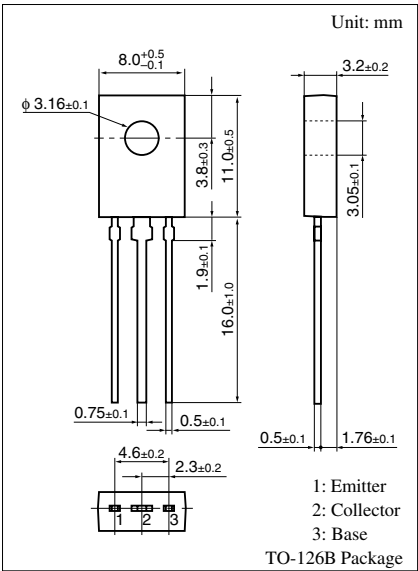
For low-frequency output driver  
Complementary to 2SC1567 and 2SC1567A

## ■ Features

- High collector to emitter voltage  $V_{CEO}$
- 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 $T_C = 25^\circ\text{C}$

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



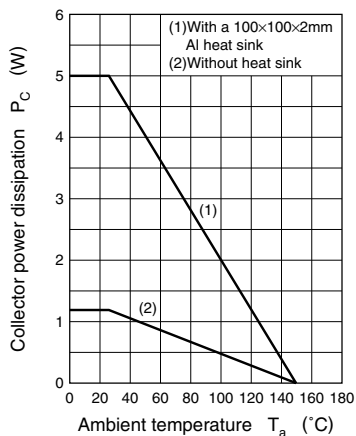
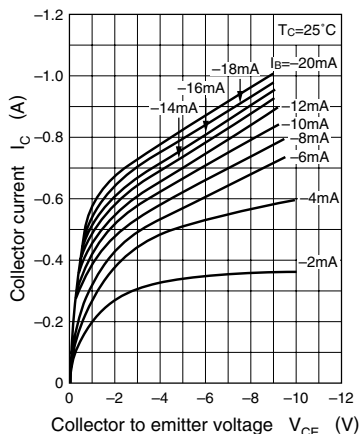
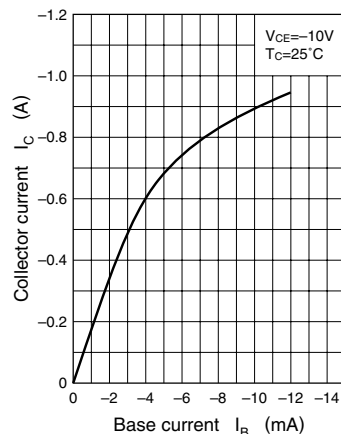
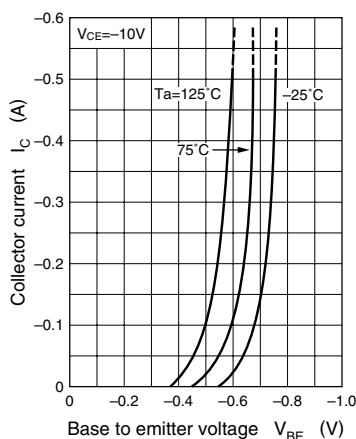
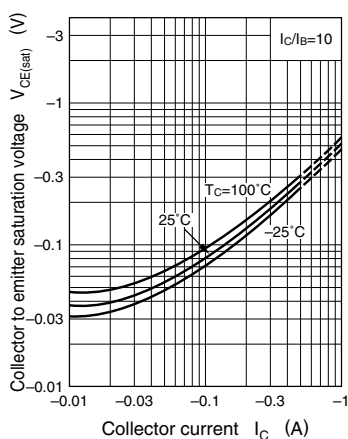
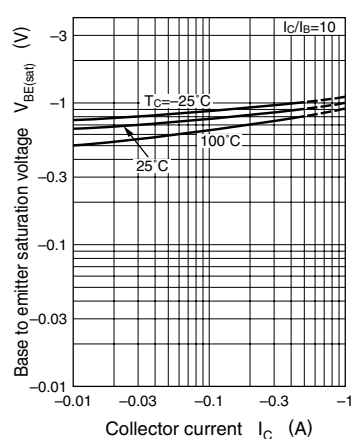
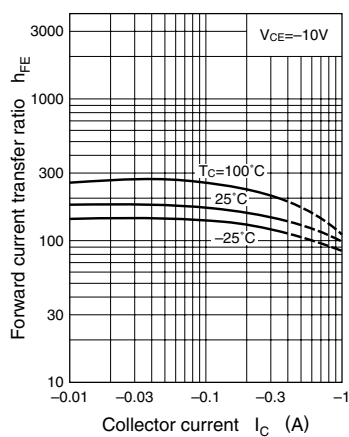
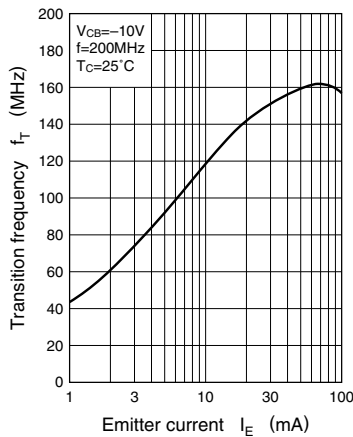
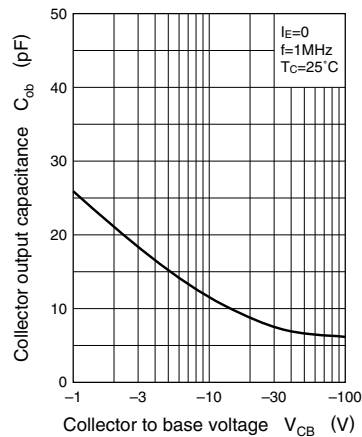
## ■ Electrical Characteristics $T_C = 25^\circ\text{C}$

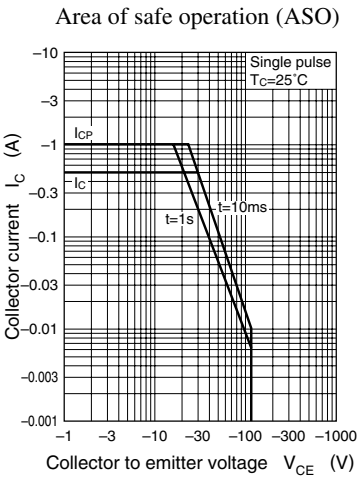
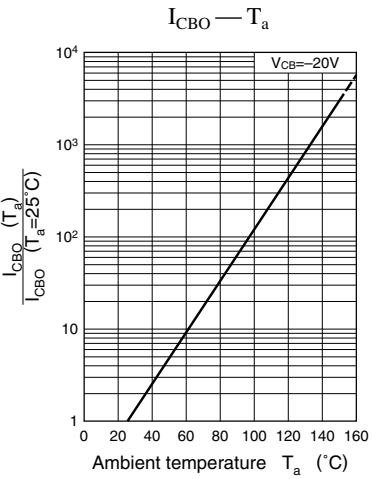
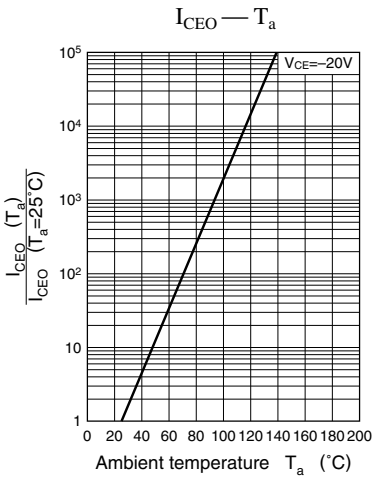
| Parameter                               | Symbol        | Conditions                                                         | Min  | Typ   | Max  | Unit |
|-----------------------------------------|---------------|--------------------------------------------------------------------|------|-------|------|------|
| Collector to emitter voltage            | $V_{CEO}$     | $I_C = -100 \mu\text{A}, I_B = 0$                                  | -100 |       |      | V    |
|                                         |               |                                                                    | -120 |       |      |      |
| Emitter to base voltage                 | $V_{EBO}$     | $I_E = -1 \mu\text{A}, I_C = 0$                                    | -5   |       |      | V    |
| Forward current transfer ratio          | $h_{FE1}^*$   | $V_{CE} = -10 \text{ V}, I_C = -150 \text{ mA}$                    | 90   | 160   | 220  |      |
|                                         | $h_{FE2}$     | $V_{CE} = -5 \text{ V}, I_C = -500 \text{ mA}$                     | 50   | 100   |      |      |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$                      |      | -0.2  | -0.4 | V    |
| Base to emitter saturation voltage      | $V_{BE(sat)}$ | $I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$                      |      | -0.85 | -1.2 | V    |
| Transition frequency                    | $f_T$         | $V_{CB} = -10 \text{ V}, I_E = 50 \text{ mA}, f = 200 \text{ MHz}$ |      | 120   |      | MHz  |
| Collector output capacitance            | $C_{ob}$      | $V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$               |      | 20    | 30   | pF   |

Note) \*: Rank classification

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

Note.) The Part numbers in the Parenthesis show conventional part number.

$P_C - T_a$  $I_C - V_{CE}$  $I_C - I_B$  $I_C - V_{BE}$  $V_{CE(sat)} - I_C$  $V_{BE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CB}$ 



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