

2SC1567, 2SC1567A

Silicon NPN Epitaxial Planar Type

AF High Power Driver

Complementary Pair with 2SA794, 2SA794A

■ Features

- High collector-emitter voltage (V_{CE0})
- Optimum for the driver of 40~100W AF output
- TO-126 package, no insulator needed when fixing to a heat sink

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

| Item | Symbol | Value | Unit |
|-----------------------------|-----------|------------|------------------|
| Collector-base voltage | 2SC1567 | 100 | V |
| | 2SC1567A | 120 | |
| Collector-emitter voltage | 2SC1567 | 100 | V |
| | 2SC1567A | 120 | |
| Emitter-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 ~ +150 | $^\circ\text{C}$ |

* Without heat sink

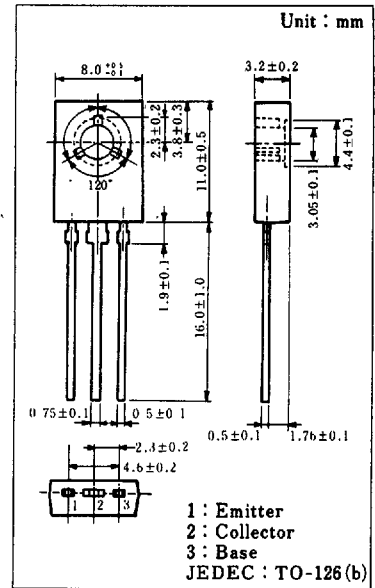
■ Electrical Characteristics ($T_c=25^\circ\text{C}$)

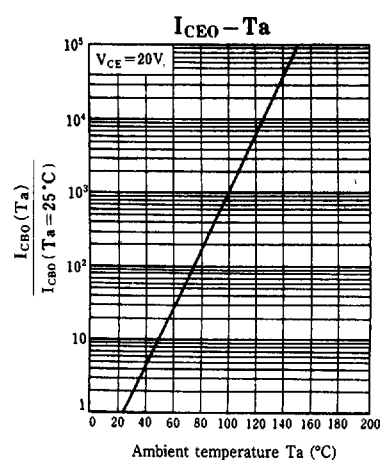
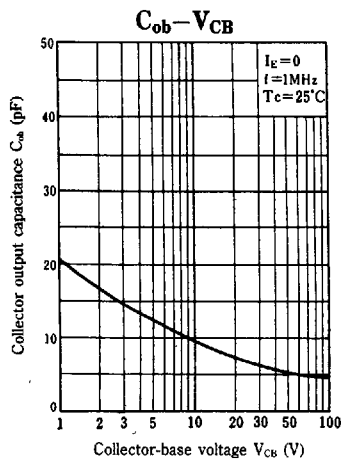
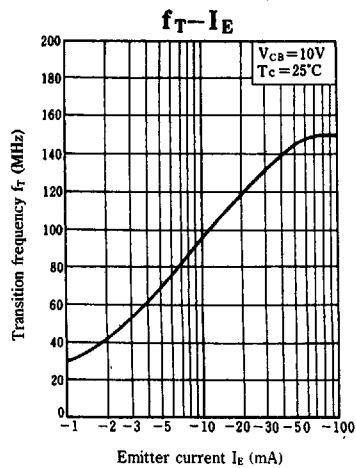
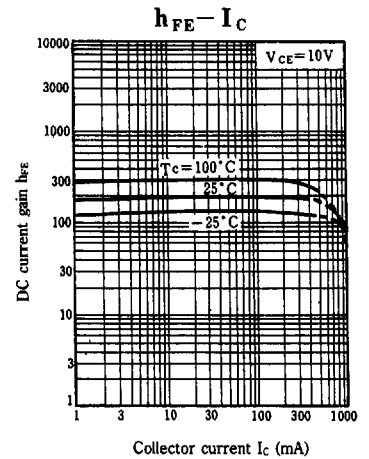
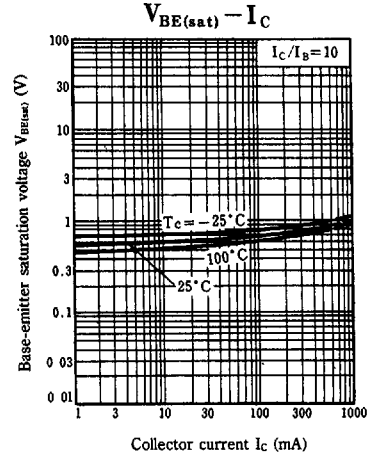
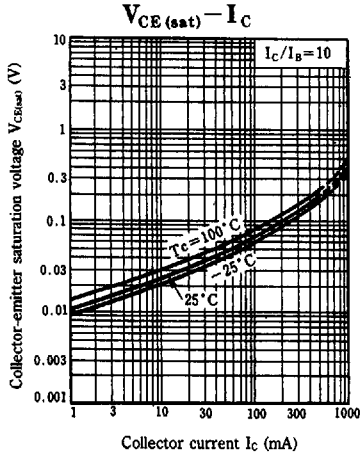
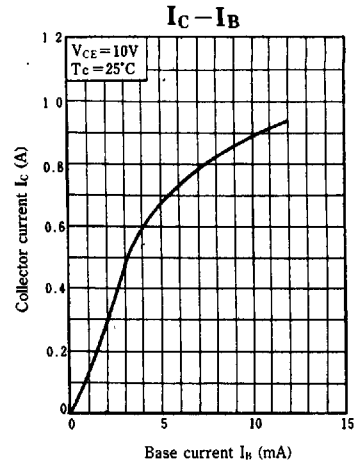
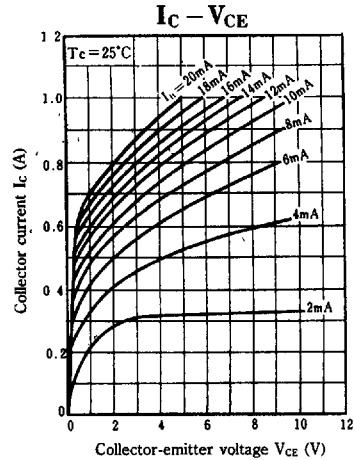
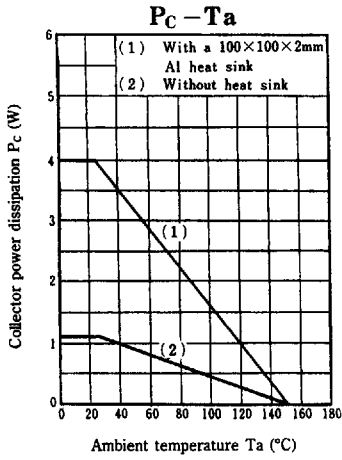
| Item | Symbol | Condition | min. | typ. | max. | Unit |
|--------------------------------------|---------------|--|------|------|------|------|
| Collector cutoff current | 2SC1567 | $I_C=100\ \mu\text{A}, I_B=0$ | 100 | | | V |
| | 2SC1567A | | 120 | | | |
| Emitter cutoff current | V_{EBO} | $I_E=1\ \mu\text{A}, I_C=0$ | 5 | | | V |
| DC current gain | h_{FE1} * | $V_{CE}=10\ \text{V}, I_C=150\ \text{mA}$ | 65 | 160 | 330 | |
| | 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 | 1.2 | 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} | $V_{CB}=10\ \text{V}, I_E=0, f=1\ \text{MHz}$ | | 11 | 20 | pF |

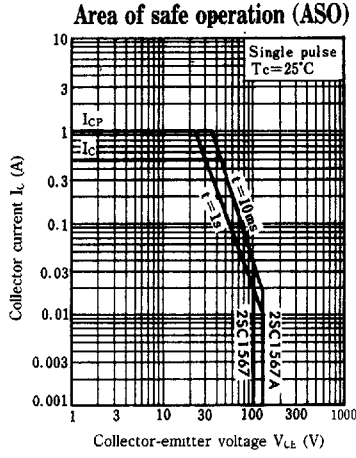
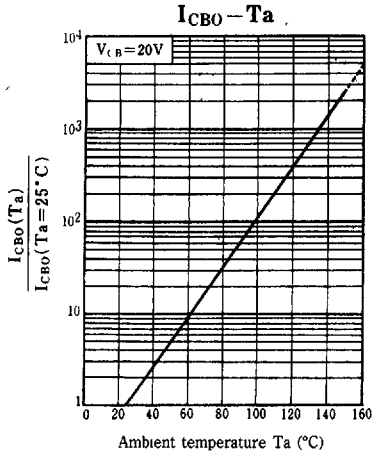
* h_{FE1} Classifications

| Class | P | Q | R | S |
|-----------|--------|--------|---------|---------|
| h_{FE1} | 65~110 | 90~155 | 130~220 | 185~330 |

■ Package Dimensions







6932852 0016349 824