

2SB1322A

Silicon PNP epitaxial planer type

For low-frequency power amplification
Complementary to 2SD1994A

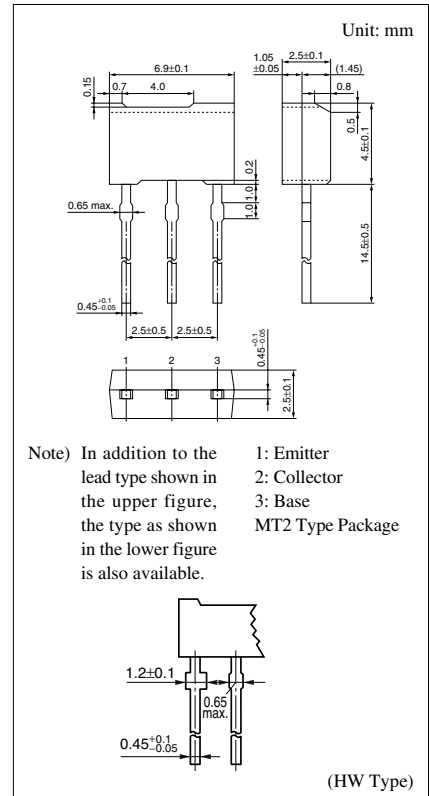
■ Features

- Allowing supply with the radial taping

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

| Parameter | Symbol | Rating | Unit |
|-------------------------------|-----------|-------------|------------------|
| Collector to base voltage | V_{CBO} | -60 | V |
| Collector to emitter voltage | V_{CEO} | -50 | V |
| Emitter to base voltage | V_{EBO} | -5 | V |
| Peak collector current | I_{CP} | -1.5 | A |
| Collector current | I_C | -1 | A |
| Collector power dissipation * | P_C | 1 | W |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

Note) *: Printed circuit board: Copper foil area of 1 cm² or more, and the board thickness of 1.7 mm for the collector portion



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

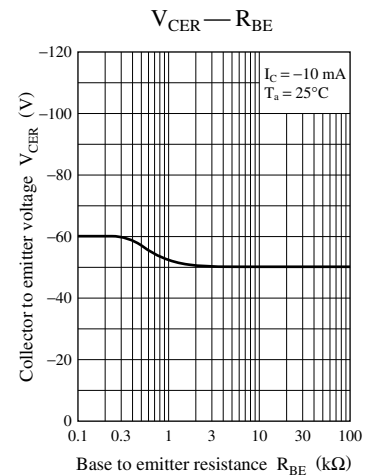
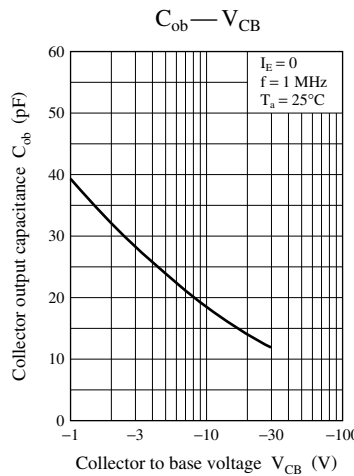
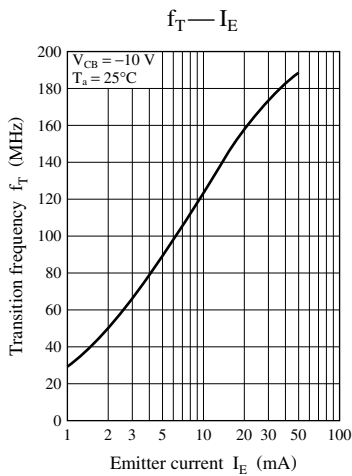
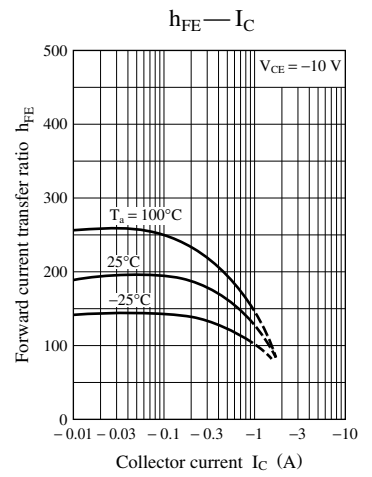
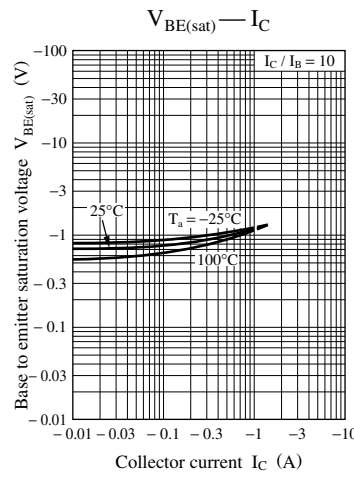
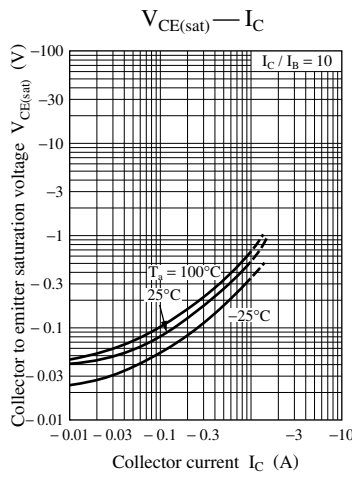
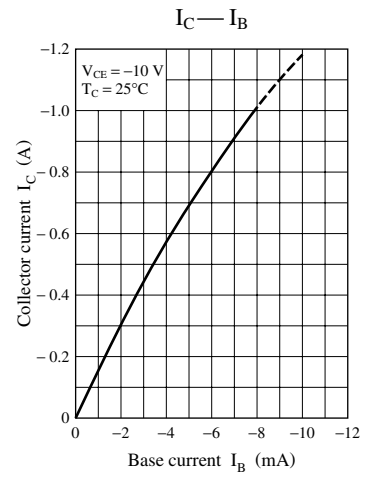
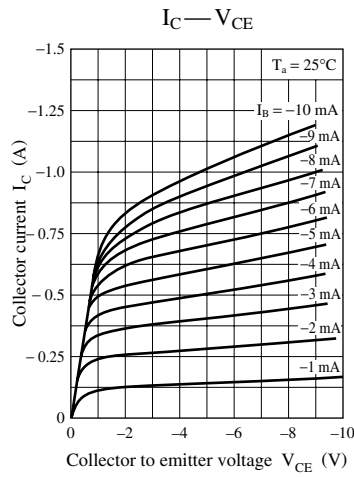
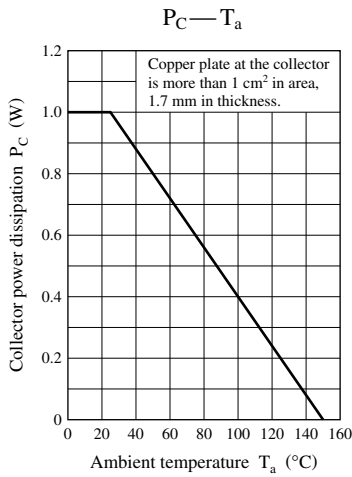
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|--|---------------|--|-----|-----|------|---------------|
| Collector cutoff current | I_{CBO} | $V_{CB} = -20\text{ V}, I_E = 0$ | | | -0.1 | μA |
| Collector to base voltage | V_{CBO} | $I_C = -10\ \mu\text{A}, I_E = 0$ | -60 | | | V |
| Collector to emitter voltage | V_{CEO} | $I_C = -2\ \text{mA}, I_B = 0$ | -50 | | | V |
| Emitter to base voltage | V_{EBO} | $I_E = -10\ \mu\text{A}, I_C = 0$ | -5 | | | V |
| Forward current transfer ratio *1 | h_{FE1} *2 | $V_{CE} = -10\ \text{V}, I_C = -500\ \text{mA}$ | 85 | | 340 | |
| | h_{FE2} | $V_{CE} = -5\ \text{V}, I_C = -1\ \text{A}$ | 50 | | | |
| Collector to emitter saturation voltage *1 | $V_{CE(sat)}$ | $I_C = -500\ \text{mA}, I_B = -50\ \text{mA}$ | | | -0.4 | V |
| Base to emitter saturation voltage *1 | $V_{BE(sat)}$ | $I_C = -500\ \text{mA}, I_B = -50\ \text{mA}$ | | | -1.2 | V |
| Transition frequency | f_T | $V_{CB} = -10\ \text{V}, I_E = 50\ \text{mA}, f = 200\ \text{MHz}$ | | 200 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = -10\ \text{V}, I_E = 0, f = 1\ \text{MHz}$ | | 20 | 30 | pF |

Note) *1: Pulse measurement

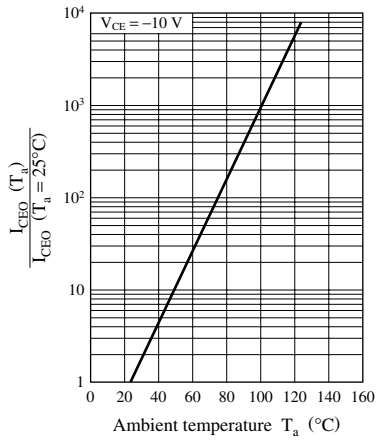
*2: Rank classification

| Rank | Q | R | S | No-rank |
|-----------|-----------|------------|------------|-----------|
| h_{FE1} | 85 to 170 | 120 to 240 | 170 to 340 | 85 to 340 |

Product of no-rank is not classified and have no indication for rank.



$I_{CEO} - T_a$



Area of safe operation (ASO)

