

2SB1320A

Silicon PNP epitaxial planer type

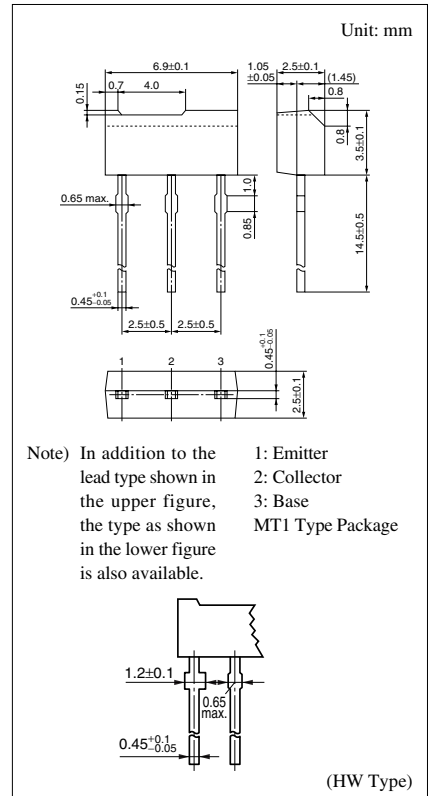
For general amplification
Complementary to 2SD1991A

■ Features

- High forward current transfer ratio h_{FE}
- 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} | -7 | V |
| Peak collector current | I_{CP} | -200 | mA |
| Collector current | I_C | -100 | mA |
| Collector power dissipation | P_C | 400 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |



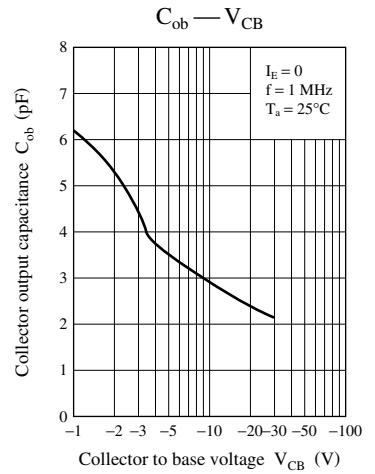
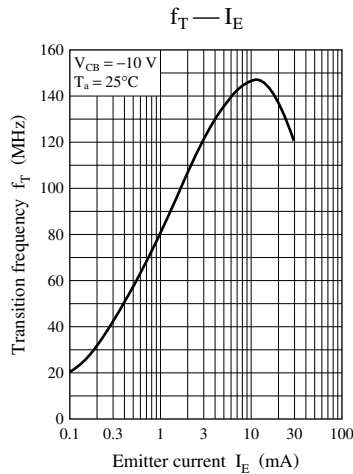
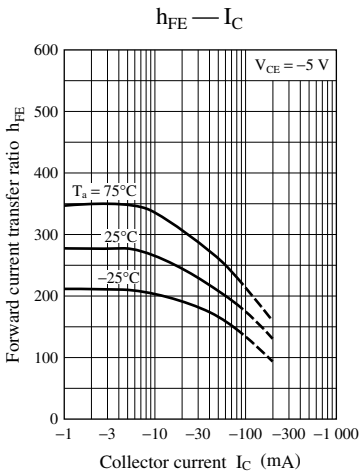
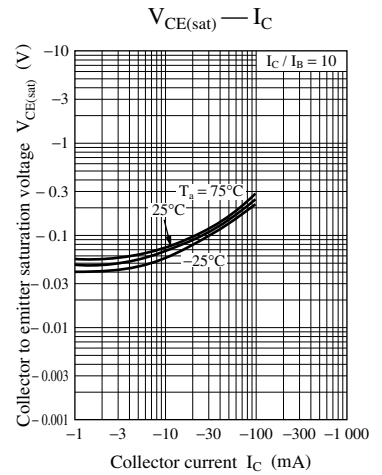
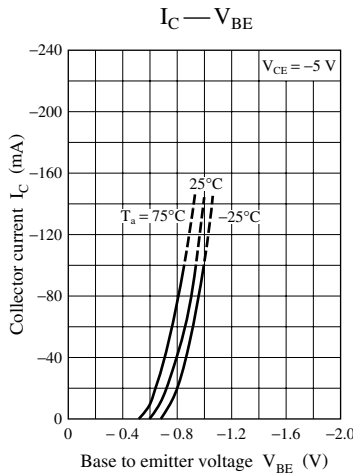
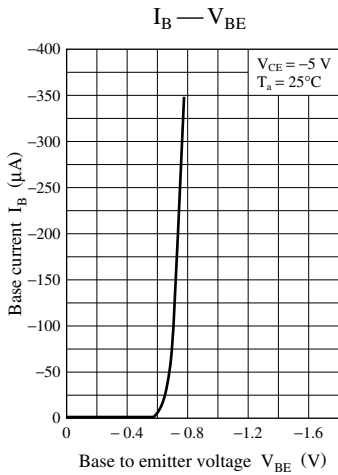
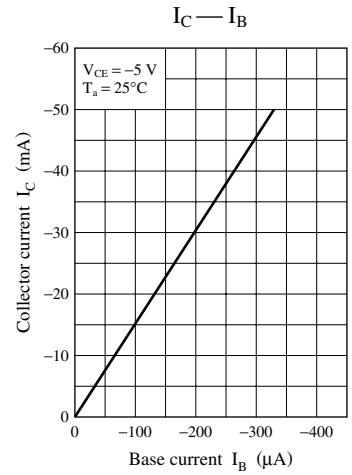
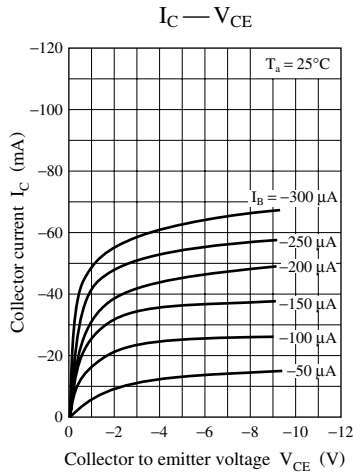
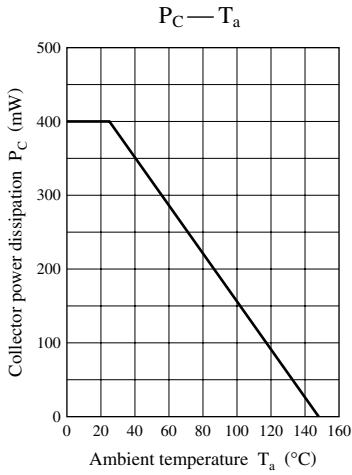
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

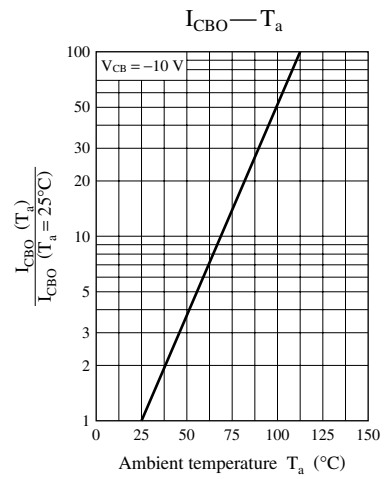
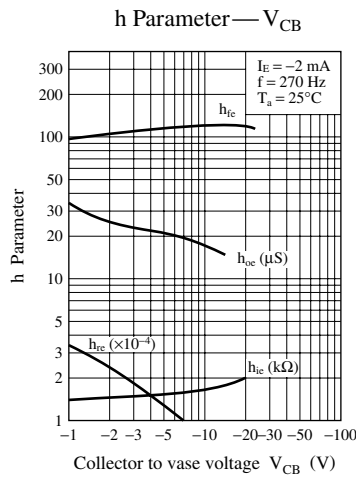
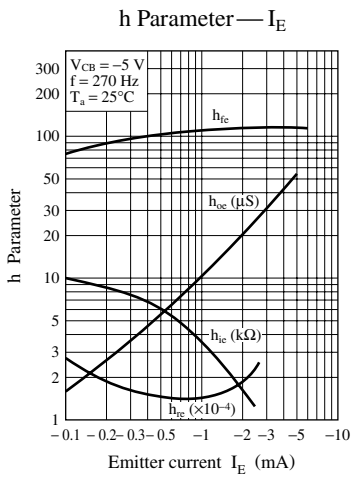
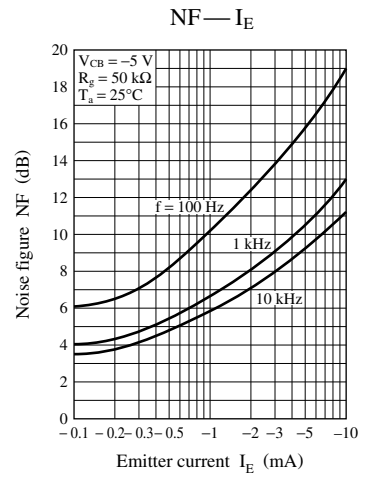
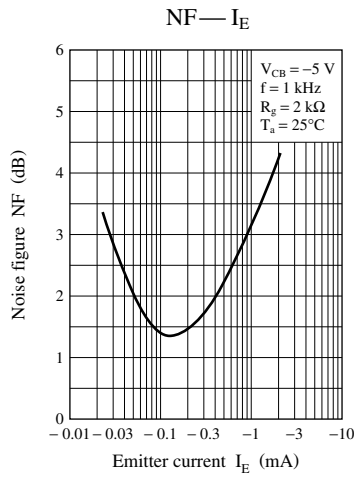
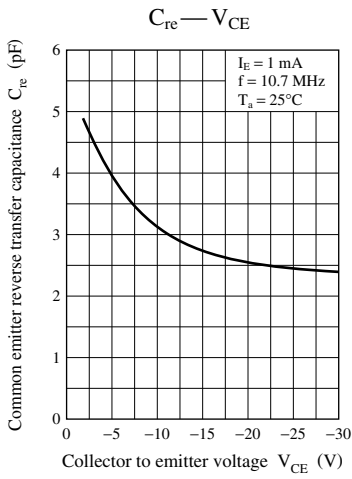
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---------------|--|-----|-----|-----|---------------|
| Collector cutoff current | I_{CBO} | $V_{CB} = -20\text{ V}, I_E = 0$ | | | -1 | μA |
| | I_{CEO} | $V_{CE} = -20\text{ V}, I_B = 0$ | | | -1 | μA |
| Collector to base voltage | 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} | $I_E = -10\ \mu\text{A}, I_C = 0$ | -7 | | | V |
| Forward current transfer ratio * | h_{FE} | $V_{CE} = -10\text{ V}, I_C = -2\text{ mA}$ | 160 | | 460 | |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -100\text{ mA}, I_B = -10\text{ mA}$ | | | -1 | V |
| Transition frequency | f_T | $V_{CB} = -10\text{ V}, I_E = 1\text{ mA}, f = 200\text{ MHz}$ | | 80 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$ | | 3.5 | | pF |

Note) *: Rank classification

| Rank | Q | R | S | No-rank |
|----------|------------|------------|------------|------------|
| h_{FE} | 160 to 260 | 210 to 340 | 290 to 460 | 160 to 460 |

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





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