

2SB1218A

Silicon PNP epitaxial planar type

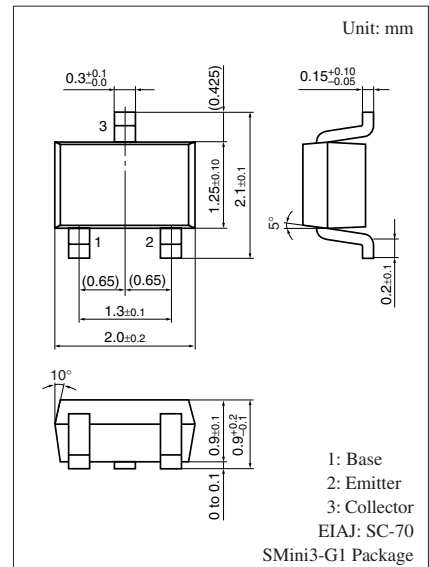
For general amplification
Complementary to 2SD1819A

■ Features

- High forward current transfer ratio h_{FE}
- S-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

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

| Parameter | Symbol | Rating | Unit |
|---------------------------------------|-----------|-------------|------------------|
| Collector-base voltage (Emitter open) | V_{CBO} | -45 | V |
| Collector-emitter voltage (Base open) | V_{CEO} | -45 | V |
| Emitter-base voltage (Collector open) | V_{EBO} | -7 | V |
| Collector current | I_C | -100 | mA |
| Peak collector current | I_{CP} | -200 | mA |
| Collector power dissipation | P_C | 150 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |



Marking Symbol: B

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

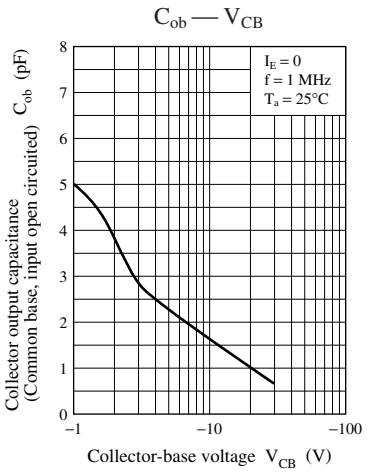
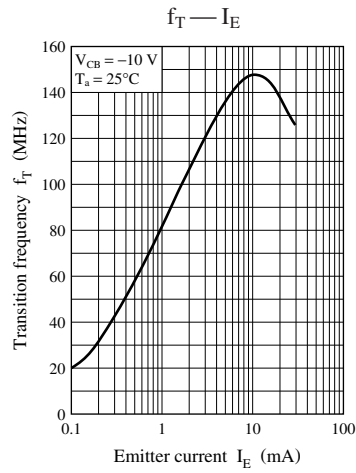
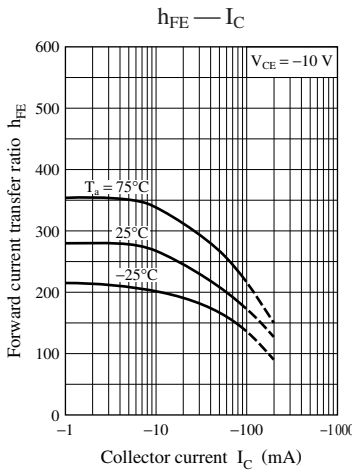
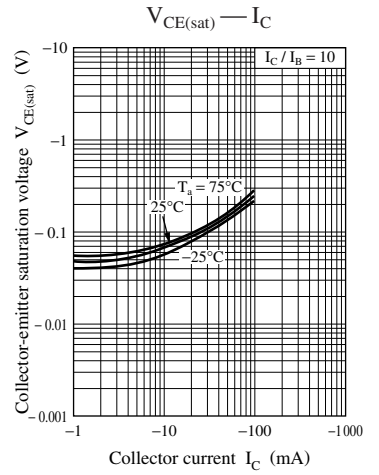
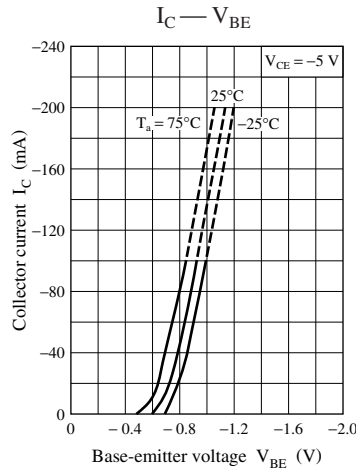
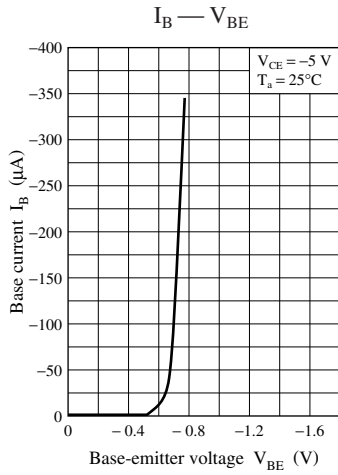
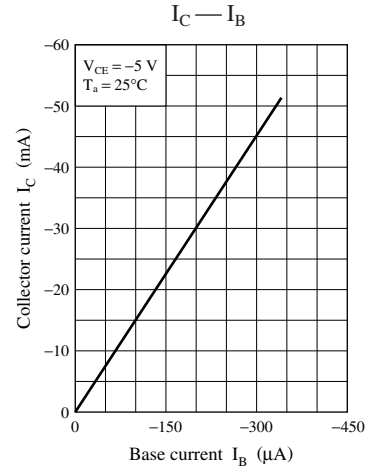
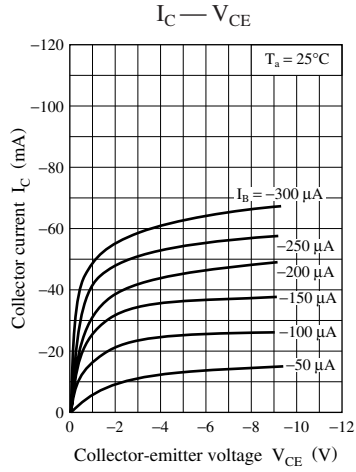
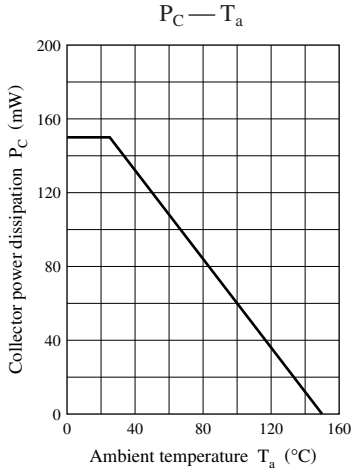
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---------------|--|-----|------|------|---------------|
| Collector-base voltage (Emitter open) | V_{CBO} | $I_C = -10 \mu\text{A}$, $I_E = 0$ | -45 | | | V |
| Collector-emitter voltage (Base open) | V_{CEO} | $I_C = -2 \text{mA}$, $I_B = 0$ | -45 | | | V |
| Emitter-base voltage (Collector open) | V_{EBO} | $I_E = -10 \mu\text{A}$, $I_C = 0$ | -7 | | | V |
| Collector-base cutoff current (Emitter open) | I_{CBO} | $V_{CB} = -20 \text{V}$, $I_E = 0$ | | | -0.1 | μA |
| Collector-emitter cutoff current (Base open) | I_{CEO} | $V_{CE} = -10 \text{V}$, $I_B = 0$ | | | -100 | μA |
| Forward current transfer ratio * | h_{FE} | $V_{CE} = -10 \text{V}$, $I_C = -2 \text{mA}$ | 160 | | 460 | — |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -100 \text{mA}$, $I_B = -10 \text{mA}$ | | -0.3 | -0.5 | V |
| Transition frequency | f_T | $V_{CB} = -10 \text{V}$, $I_E = 1 \text{mA}$, $f = 200 \text{MHz}$ | | 80 | | MHz |
| Collector output capacitance (Common base, input open circuited) | C_{ob} | $V_{CB} = -10 \text{V}$, $I_E = 0$, $f = 1 \text{MHz}$ | | 2.7 | | pF |

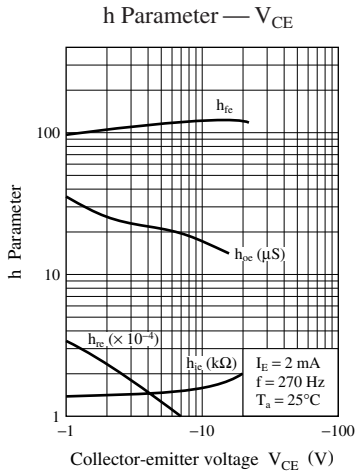
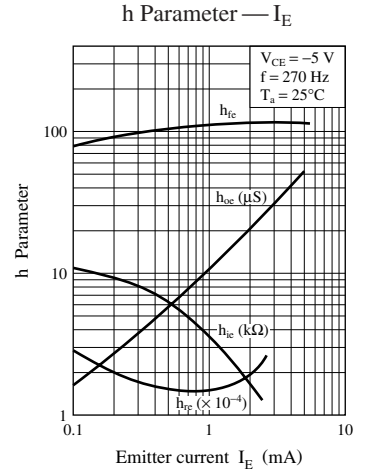
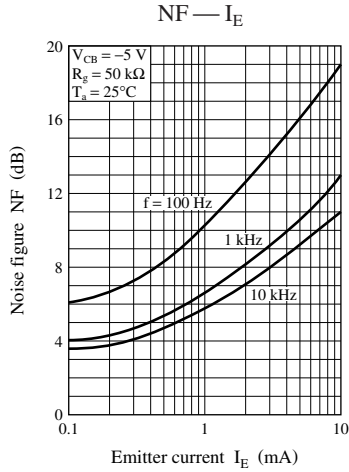
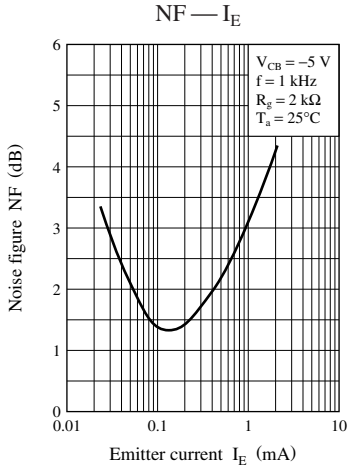
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Rank classification

| Rank | Q | R | S | No-rank |
|----------------|------------|------------|------------|------------|
| h_{FE} | 160 to 260 | 210 to 340 | 290 to 460 | 160 to 460 |
| Marking symbol | BQ | BR | BS | B |

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





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