

2SB1219

Silicon PNP epitaxial planar type

For general amplification
Complementary to 2SD1820

■ Features

- Large collector current I_C
- S-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing.

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

| Parameter | Symbol | Rating | Unit |
|---------------------------------------|-----------|-------------|------------------|
| Collector-base voltage (Emitter open) | V_{CBO} | -30 | V |
| Collector-emitter voltage (Base open) | V_{CEO} | -25 | V |
| Emitter-base voltage (Collector open) | V_{EBO} | -5 | V |
| Collector current | I_C | -500 | mA |
| Peak collector current | I_{CP} | -1 | A |
| Collector power dissipation | P_C | 150 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

■ Package

- Code
SMini3-G1
- Pin Name
 1. Base
 2. Emitter
 3. Collector

■ Marking Symbol: C

■ 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} | $I_C = -10 \mu\text{A}, I_E = 0$ | -30 | | | V |
| Collector-emitter voltage (Base open) | V_{CEO} | $I_C = -2 \text{ mA}, I_B = 0$ | -25 | | | V |
| Emitter-base voltage (Collector open) | V_{EBO} | $I_E = -10 \mu\text{A}, I_C = 0$ | -5 | | | V |
| Collector-base cutoff current (Emitter open) | I_{CBO} | $V_{CB} = -20 \text{ V}, I_E = 0$ | | | -0.1 | μA |
| Forward current transfer ratio *1 | h_{FE1} *2 | $V_{CE} = -10 \text{ V}, I_C = -150 \text{ mA}$ | 85 | | 340 | — |
| | h_{FE2} | $V_{CE} = -10 \text{ V}, I_C = -500 \text{ mA}$ | 40 | | | |
| Collector-emitter saturation voltage *1 | $V_{CE(sat)}$ | $I_C = -300 \text{ mA}, I_B = -30 \text{ mA}$ | | -0.35 | -0.60 | V |
| Base-emitter saturation voltage *1 | $V_{BE(sat)}$ | $I_C = -300 \text{ mA}, I_B = -30 \text{ mA}$ | | -1.1 | -1.5 | V |
| Transition frequency | f_T | $V_{CB} = -10 \text{ V}, I_E = 50 \text{ mA}, f = 200 \text{ MHz}$ | | 200 | | MHz |
| Collector output capacitance (Common base, input open circuited) | C_{ob} | $V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$ | | 6 | 15 | pF |

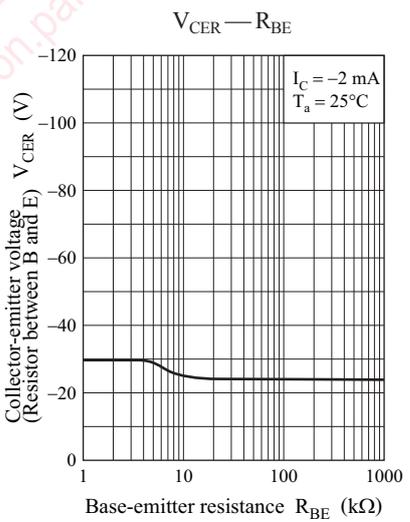
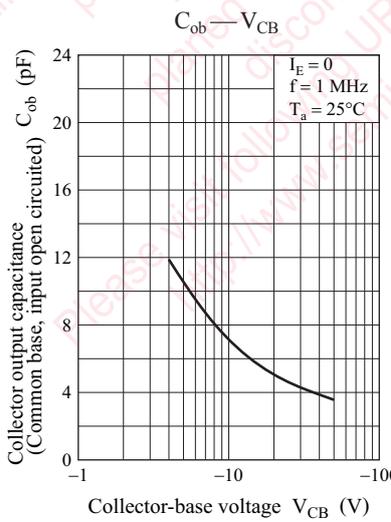
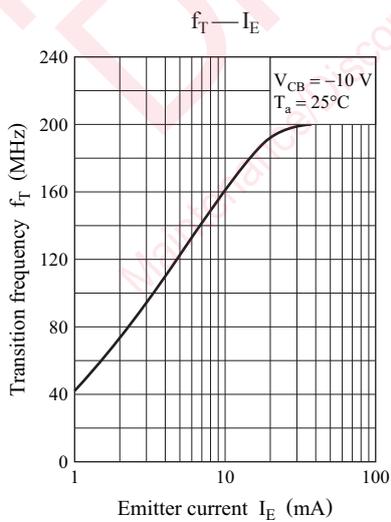
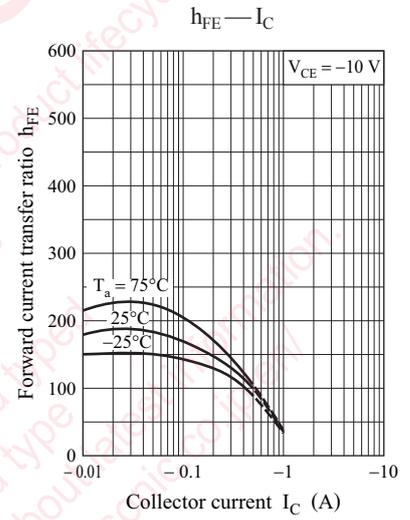
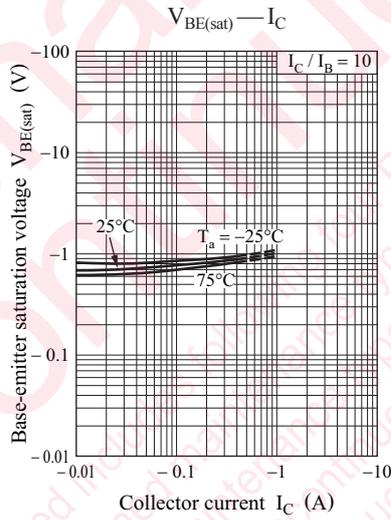
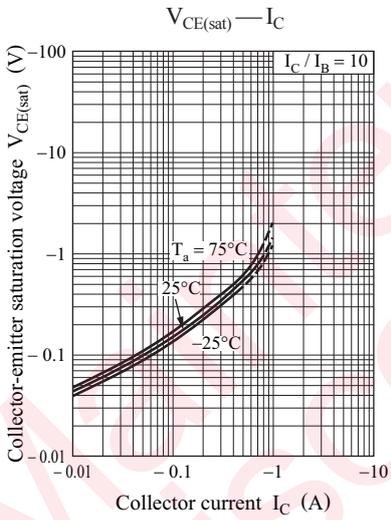
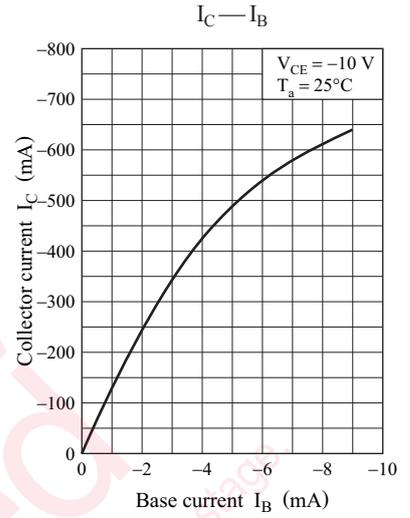
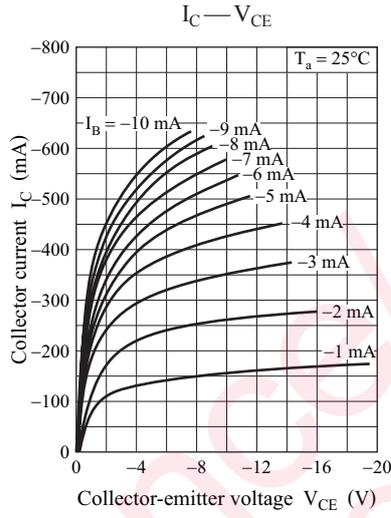
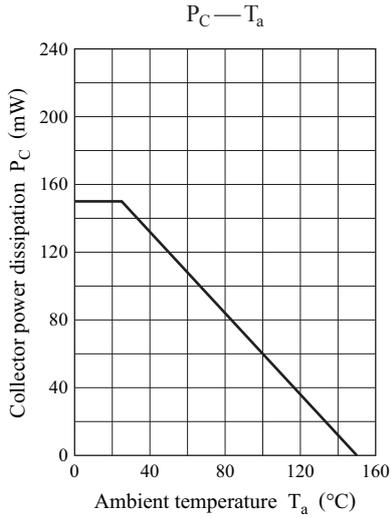
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

*2: Rank classification

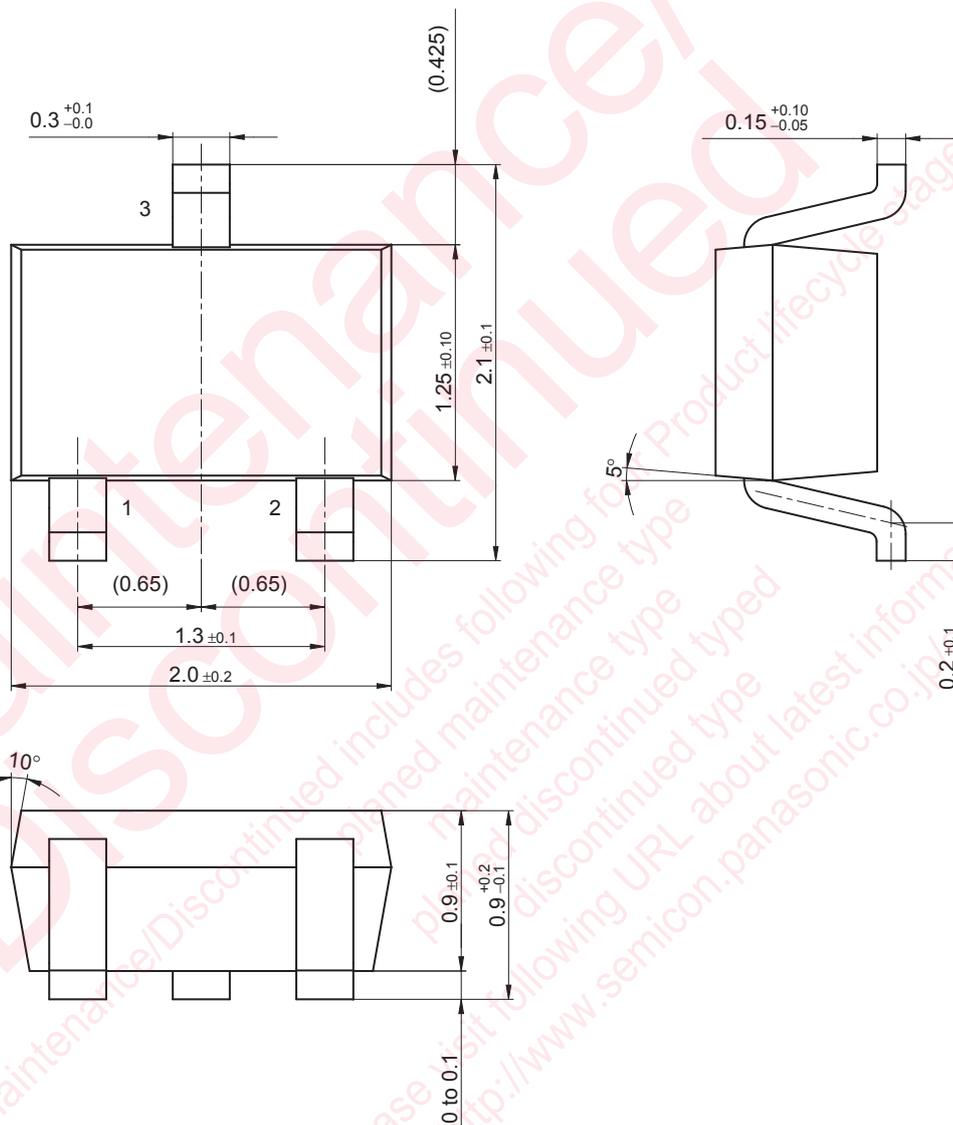
| Rank | Q | R | S | No-rank |
|----------------|-----------|------------|------------|-----------|
| h_{FE1} | 85 to 170 | 120 to 240 | 170 to 340 | 85 to 340 |
| Marking symbol | CQ | CR | CS | C |

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



SMini3-G1

Unit: mm



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