

2SB0766, 2SB0766A (2SB766, 2SB766A)

Silicon PNP epitaxial planar type

For low-frequency output amplification

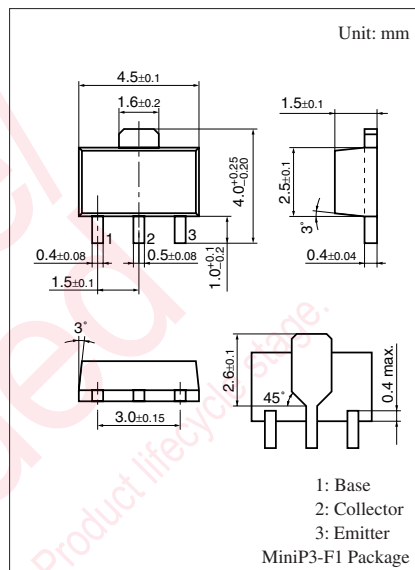
Complementary to 2SD0874 (2SD874), 2SD0874A (2SD874A)

■ Features

- Large collector power dissipation P_C
- 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) | 2SB0766 | V_{CBO} | -30 | V |
| | 2SB0766A | | -60 | |
| Collector-emitter voltage (Base open) | 2SB0766 | V_{CEO} | -25 | V |
| | 2SB0766A | | -50 | |
| Emitter-base voltage (Collector open) | V_{EBO} | -5 | V | |
| Collector current | I_C | -1 | A | |
| Peak collector current | I_{CP} | -1.5 | A | |
| Collector power dissipation * | P_C | 1 | W | |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ | |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ | |



Marking Symbol:

- 2SB0766: A
- 2SB0766A: B

Note) *: Print 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-base voltage (Emitter open) | 2SB0766 | $I_C = -10 \mu\text{A}, I_E = 0$ | -30 | | | V |
| | 2SB0766A | | -60 | | | |
| Collector-emitter voltage (Base open) | 2SB0766 | $I_C = -2 \text{ mA}, I_B = 0$ | -25 | | | V |
| | 2SB0766A | | -50 | | | |
| 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 | $V_{CE} = -10 \text{ V}, I_C = -500 \text{ mA}$ | 85 | | 340 | — |
| | h_{FE2} | $V_{CE} = -5 \text{ V}, I_C = -1 \text{ A}$ | 50 | | | |
| Collector-emitter saturation voltage *1 | $V_{CE(sat)}$ | $I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$ | -0.2 | | -0.4 | V |
| Base-emitter saturation voltage *1 | $V_{BE(sat)}$ | $I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$ | -0.85 | | -1.20 | 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} | $V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$ | | 20 | 30 | pF |

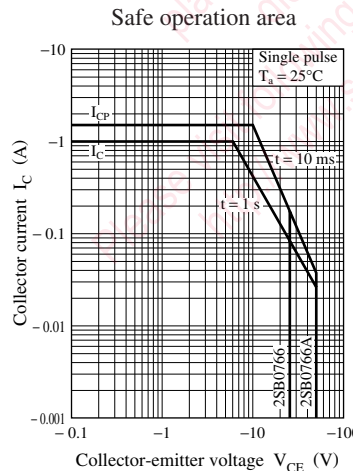
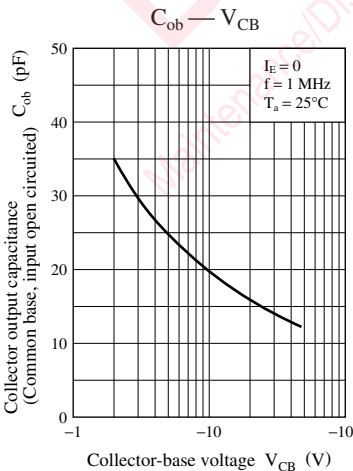
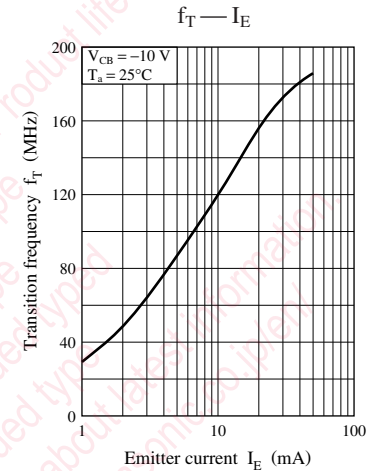
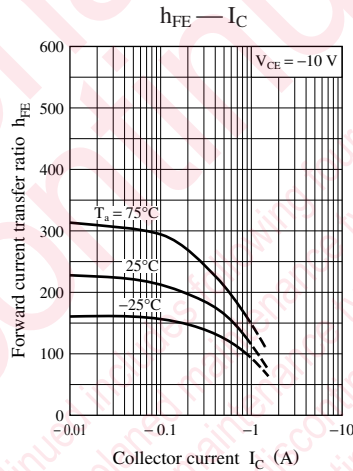
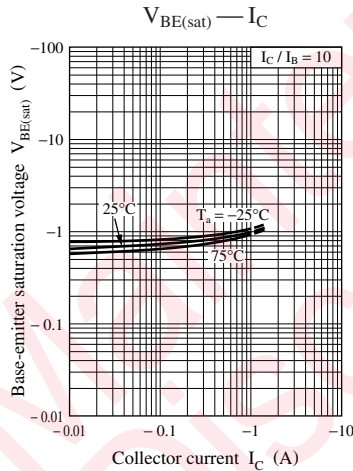
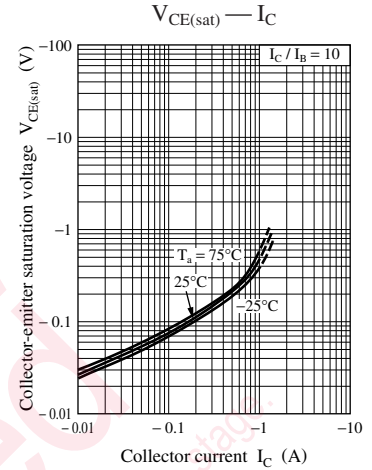
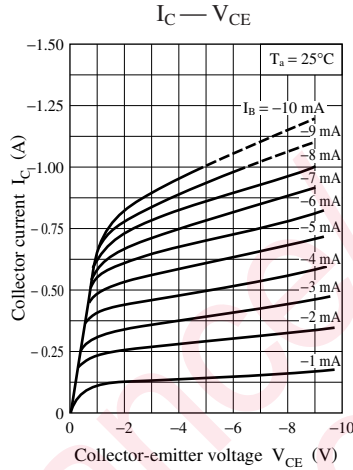
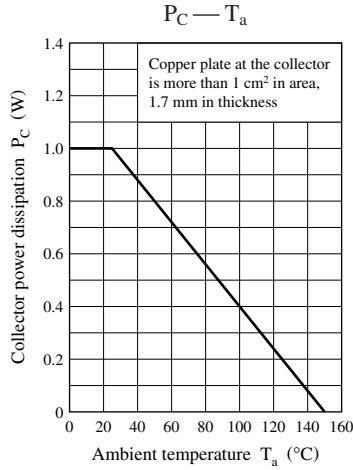
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

*2: Rank classification

| Rank | Q | R | S |
|-----------|-----------|------------|------------|
| h_{FE1} | 85 to 170 | 120 to 240 | 170 to 340 |

Note) The part numbers in the parenthesis show conventional part number.



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