

2SA0885 (2SA885)

Silicon PNP epitaxial planar type

For low-frequency power amplification
Complementary to 2SC1846

■ Features

- Output of 3 W can be obtained by a complementary pair with 2SC1846
- TO-126B package which requires no insulation plate for installation to the heat sink

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

| Parameter | Symbol | Rating | Unit |
|------------------------------|-----------|-------------|------------------|
| Collector to base voltage | V_{CBO} | -45 | V |
| Collector to emitter voltage | V_{CEO} | -35 | 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 | 1.2 *1 | W |
| | | 5 *2 | |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

Note) *1: Without heat sink

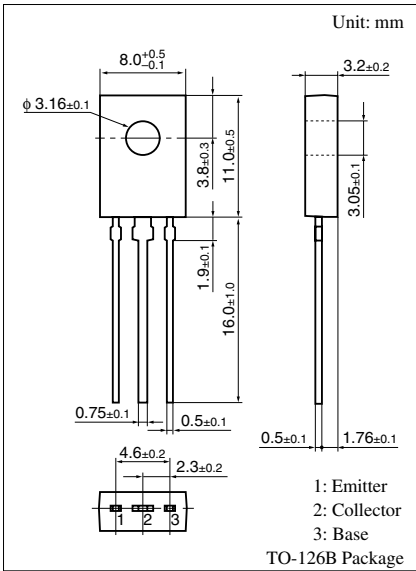
*2: With a $100 \times 100 \times 2$ mm Al heat sink

■ Electrical Characteristics $T_C = 25^\circ\text{C}$

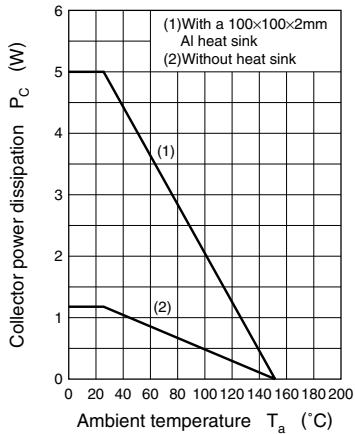
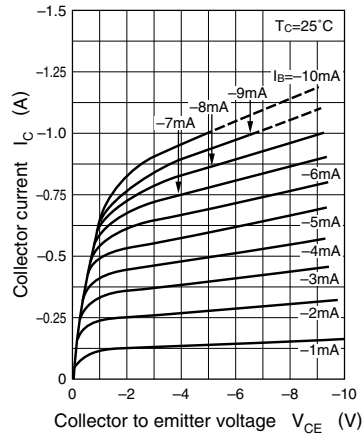
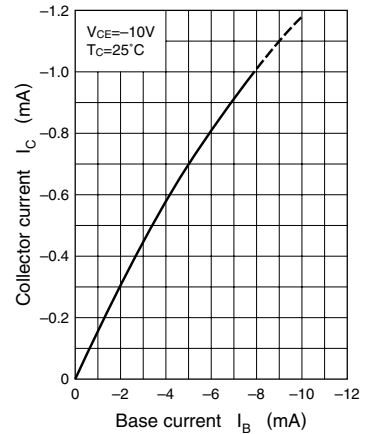
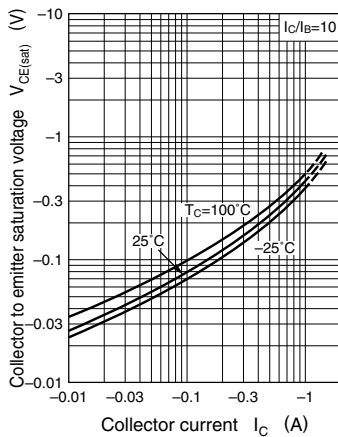
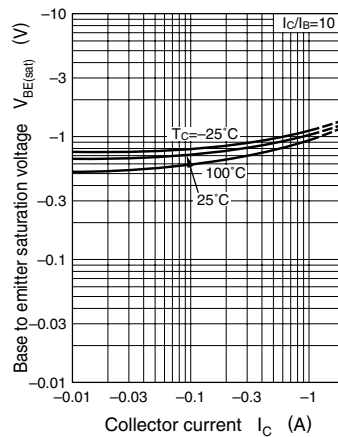
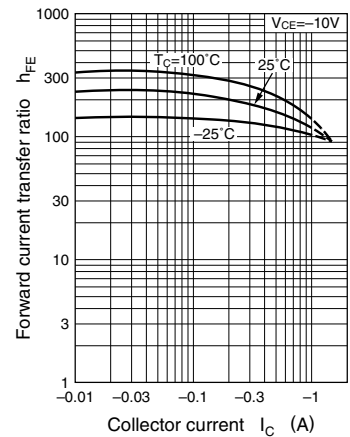
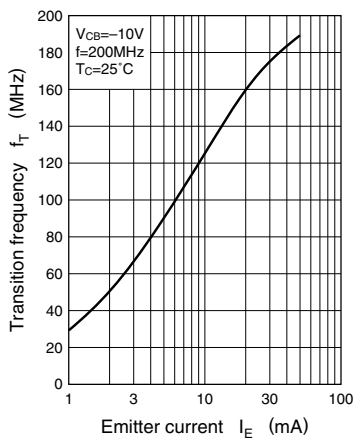
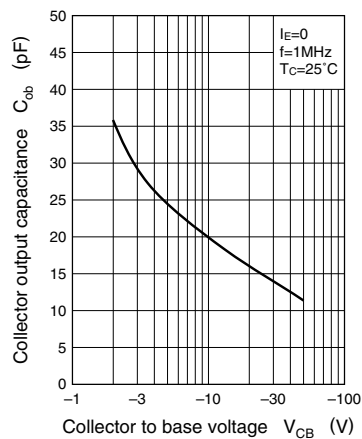
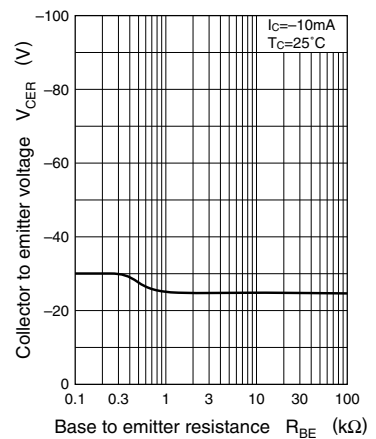
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---------------|--|-----|-----|------|---------------|
| Collector cutoff current | I_{CBO} | $V_{CB} = -20$ V, $I_E = 0$ | | | -0.1 | μA |
| | I_{CEO} | $V_{CE} = -20$ V, $I_B = 0$ | | | -100 | μA |
| Emitter cutoff current | I_{EBO} | $V_{EB} = -5$ V, $I_C = 0$ | | | -10 | μA |
| Collector to base voltage | V_{CBO} | $I_C = -10$ μA , $I_E = 0$ | -45 | | | V |
| Collector to emitter voltage | V_{CEO} | $I_C = -2$ mA, $I_B = 0$ | -35 | | | V |
| Forward current transfer ratio | h_{FE1} * | $V_{CE} = -10$ V, $I_C = -500$ mA | 85 | | 340 | |
| | h_{FE2} | $V_{CE} = -5$ V, $I_C = -1$ A | 50 | | | |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -500$ mA, $I_B = -50$ mA | | | -0.5 | V |
| Transition frequency | f_T | $V_{CB} = -10$ V, $I_E = 50$ mA, $f = 200$ MHz | | 200 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = -10$ V, $I_E = 0$, $f = 1$ MHz | | 20 | 30 | pF |

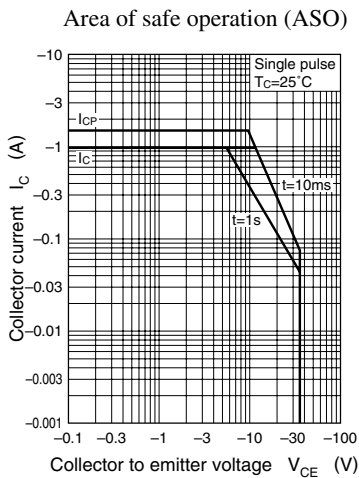
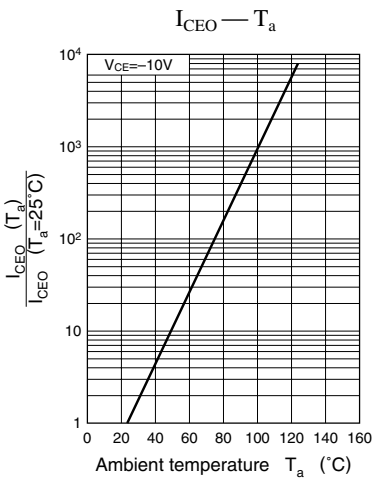
Note) *: Rank classification

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



Note.) The Part number in the Parenthesis shows conventional part number.

$P_C - T_a$  $I_C - V_{CE}$  $I_C - I_B$  $V_{CE(sat)} - I_C$  $V_{BE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CB}$  $V_{CER} - R_{BE}$ 



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