

DSA7101

Silicon PNP epitaxial planar type

For low frequency amplification

Complementary to DSC7101

DSA8101 in MiniP3 type package

■ Features

- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

■ Packaging

Embossed type (Thermo-compression sealing): 1000 pcs / reel (standard)

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

| Parameter | Symbol | Rating | Unit |
|---------------------------------------|-----------|-------------|------------------|
| Collector-base voltage (Emitter open) | V_{CBO} | -80 | V |
| Collector-emitter voltage (Base open) | V_{CEO} | -80 | V |
| Emitter-base voltage (Collector open) | V_{EBO} | -5 | V |
| Collector current | I_C | -0.5 | A |
| Peak collector current | I_{CP} | -1 | A |
| Collector power dissipation * | P_C | 1 | W |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

Note) *: Printed circuit board: Copper foil area of 1 cm^2 or more, and the board thickness of 1.7 mm for the collector portion

Absolute maximum rating without heat sink for P_C is 0.5 W

■ 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} | $I_C = -10 \mu\text{A}, I_E = 0$ | -80 | | | V |
| Collector-emitter voltage (Base open) | V_{CEO} | $I_C = -100 \mu\text{A}, I_B = 0$ | -80 | | | 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 | $V_{CE} = -10 \text{ V}, I_C = -150 \text{ mA}$ | 90 | | 220 | — |
| | h_{FE2} | $V_{CE} = -5 \text{ V}, I_C = -500 \text{ mA}$ | 50 | 100 | | |
| Collector-emitter saturation voltage * ¹ | $V_{CE(\text{sat})}$ | $I_C = -300 \text{ mA}, I_B = -30 \text{ mA}$ | | -0.2 | -0.4 | V |
| Base-emitter saturation voltage * ¹ | $V_{BE(\text{sat})}$ | $I_C = -300 \text{ mA}, I_B = -30 \text{ mA}$ | | -0.9 | -1.2 | V |
| Transition frequency | f_T | $V_{CE} = -10 \text{ V}, I_C = -50 \text{ mA}$ | | 120 | | MHz |
| Collector output capacitance (Common base, input open circuited) | C_{ob} | $V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$ | | 10 | 30 | pF |

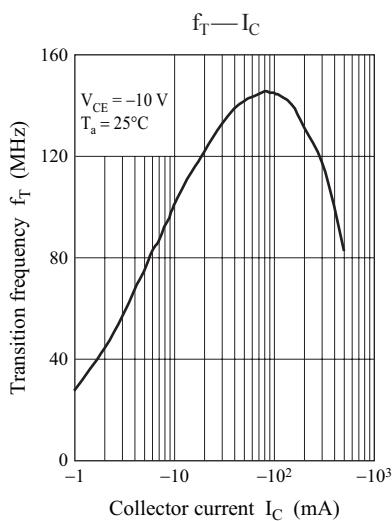
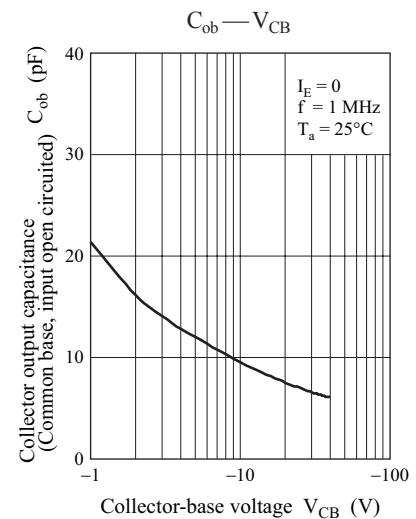
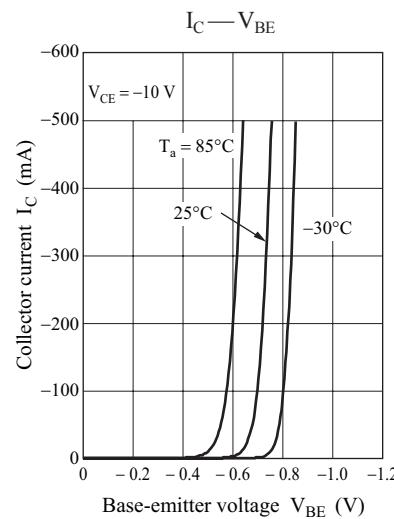
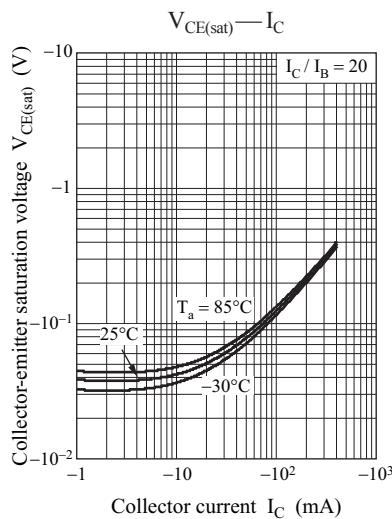
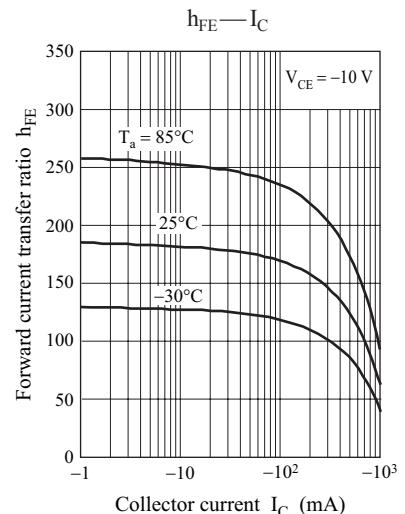
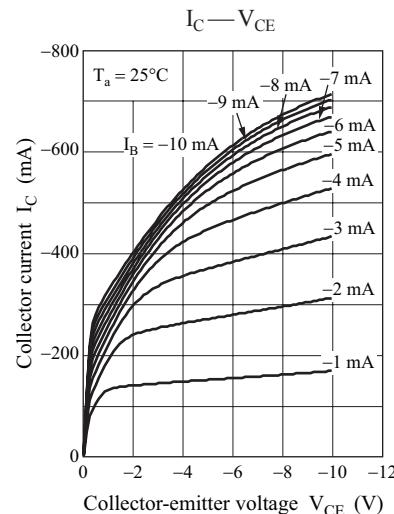
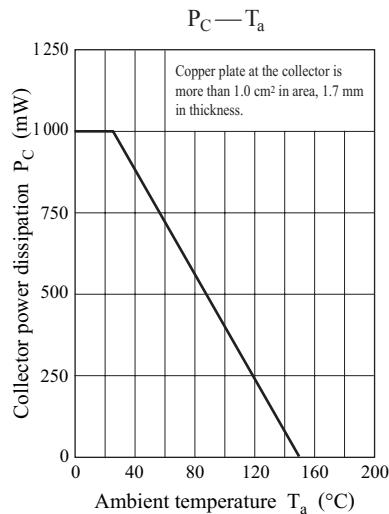
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *¹: Pulse measurement

*²: Rank classification

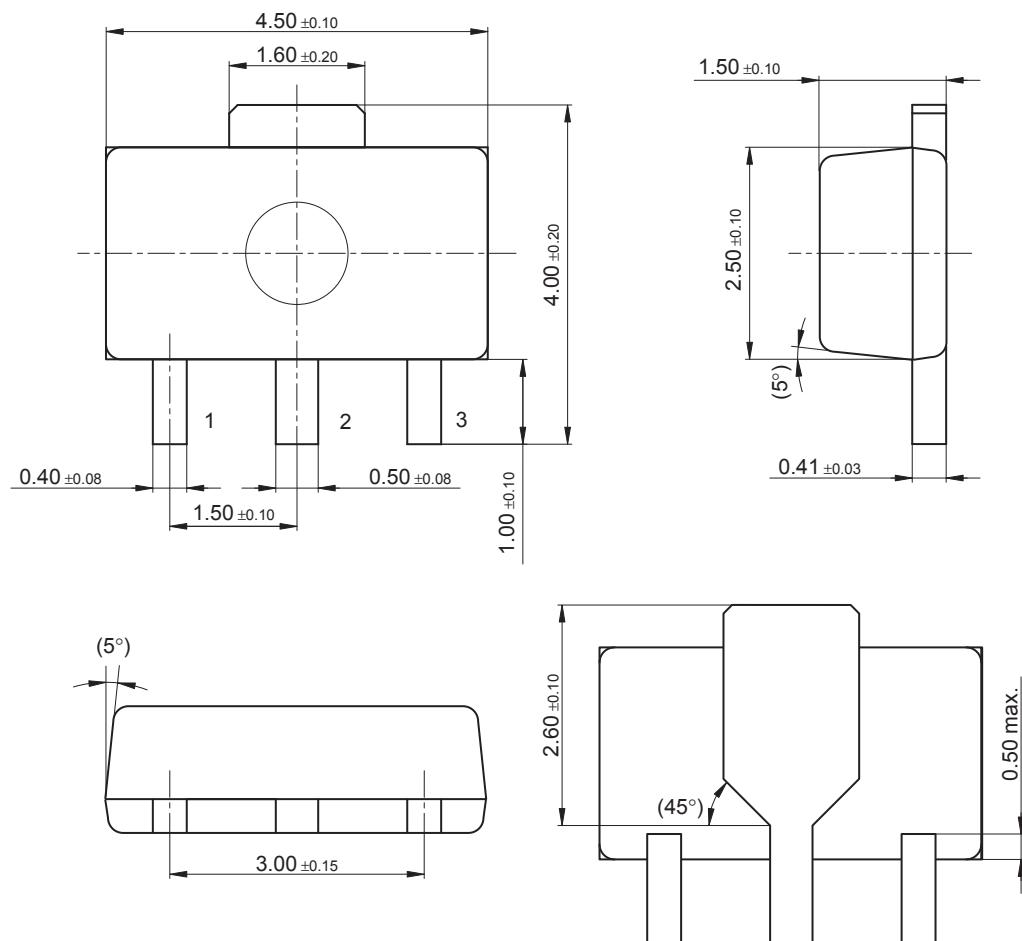
| Code | Q | R | 0 |
|----------------|-----------|------------|-----------|
| Rank | Q | R | No-rank |
| h_{FE1} | 90 to 155 | 130 to 220 | 90 to 220 |
| Marking Symbol | 4CQ | 4CR | 4C |

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



MiniP3-F2-B

Unit: mm



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