

# 2SA0914 (2SA914)

## Silicon PNP epitaxial planar type

For audio system/pli drive

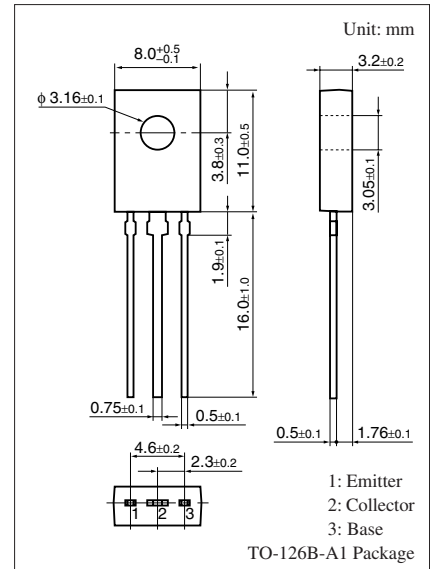
Complementary to 2SC1953

### ■ Features

- A complementary pair with 2SC1953, is optimum for the pre-driver stage of a 60 W to 100 W output amplifier
- 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-base voltage (Emitter open) | $V_{CBO}$ | -150        | V                |
| Collector-emitter voltage (Base open) | $V_{CEO}$ | -150        | V                |
| Emitter-base voltage (Collector open) | $V_{EBO}$ | -5          | V                |
| Collector current                     | $I_C$     | -50         | mA               |
| Peak collector current                | $I_{CP}$  | -100        | mA               |
| Collector power dissipation           | $P_C$     | 1.2         | W                |
| Junction temperature                  | $T_j$     | 150         | $^\circ\text{C}$ |
| Storage temperature                   | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |



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

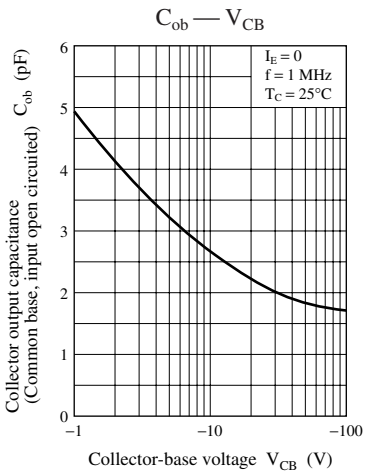
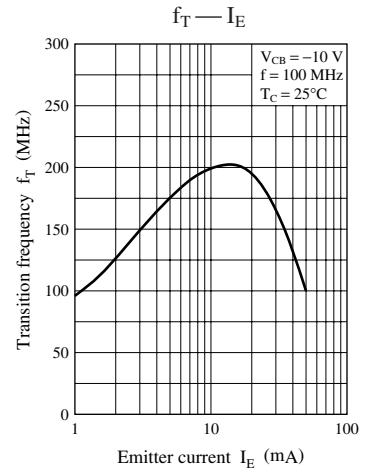
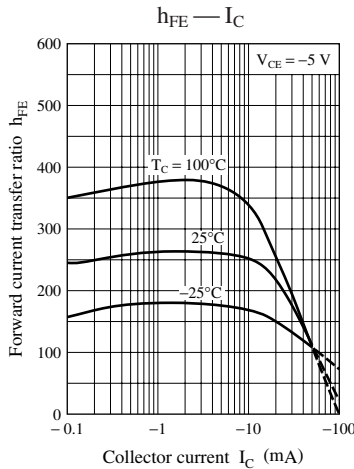
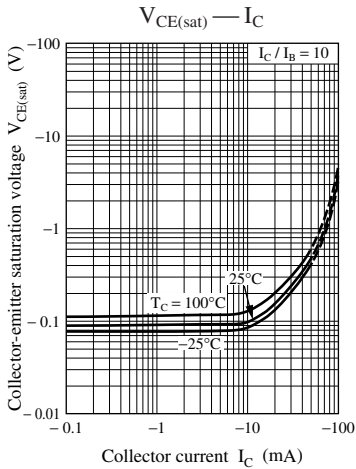
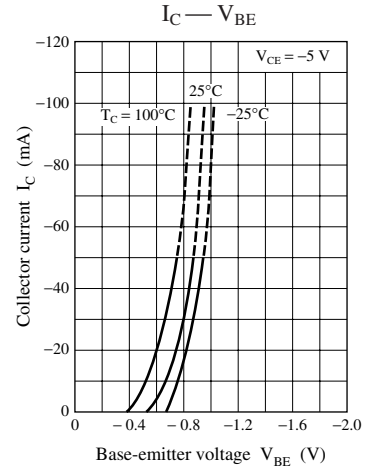
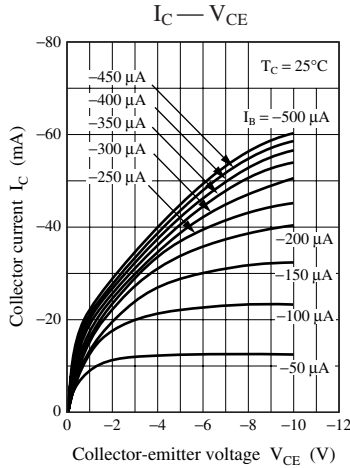
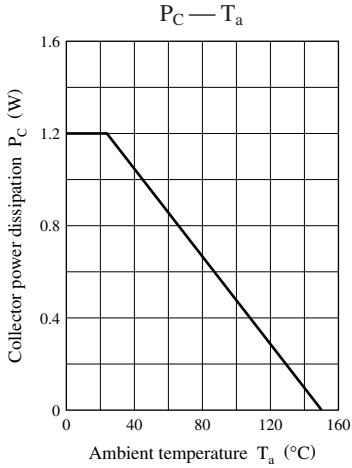
| Parameter   | Symbol        | Conditions  | Min  | Typ | Max | Unit          |
|---|---------------|---|------|-----|-----|---------------|
| Collector-emitter voltage (Base open)                               | $V_{CEO}$     | $I_C = -100 \mu\text{A}, I_B = 0$                               | -150 |     |     | 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)                        | $I_{CBO}$     | $V_{CB} = -100 \text{V}, I_E = 0$                               |      |     | -1  | $\mu\text{A}$ |
| Forward current transfer ratio *                                    | $h_{FE}$      | $V_{CE} = -5 \text{V}, I_C = -10 \text{mA}$                     | 130  |     | 330 | —             |
| Collector-emitter saturation voltage                                | $V_{CE(sat)}$ | $I_C = -30 \text{mA}, I_B = -3 \text{mA}$                       |      |     | -1  | V             |
| Transition frequency  | $f_T$         | $V_{CB} = -10 \text{V}, I_E = 10 \text{mA}, f = 200 \text{MHz}$ | 70   |     |     | MHz           |
| Collector output capacitance<br>(Common base, input open circuited) | $C_{ob}$      | $V_{CB} = -6 \text{V}, I_E = 0, f = 1 \text{MHz}$               |      |     | 5   | pF            |

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

2. \*: Rank classification

| Rank     | R          | S          |
|----------|------------|------------|
| $h_{FE}$ | 130 to 220 | 185 to 330 |

Note) The part number in the parenthesis shows conventional part number.



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