

### **Description**

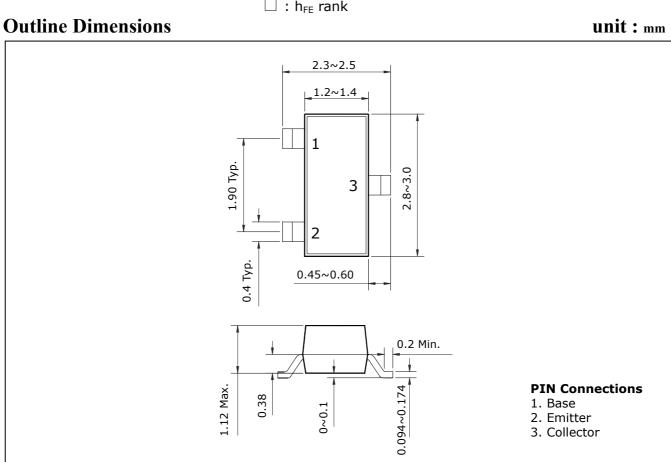
• Audio power amplifier application

### **Features**

- High  $h_{FE}$ :  $h_{FE}=100\sim320$
- Complementary pair with 2SA1981S

## **Ordering Information**

| Type NO. | Marking     | Package Code |
|----------|-------------|--------------|
| 2SC5344S | $FA\square$ | SOT-23       |
|          | П. L        |              |



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# Absolute maximum ratings

(Ta=25°C)

| Characteristic            | Symbol         | Ratings | Unit |
|---------------------------|----------------|---------|------|
| Collector-Base voltage    | $V_{CBO}$      | 35      | V    |
| Collector-Emitter voltage | $V_{CEO}$      | 30      | V    |
| Emitter-Base voltage      | $V_{EBO}$      | 5       | V    |
| Collector current         | $I_{C}$        | 800     | mA   |
| Collector dissipation     | P <sub>C</sub> | 200     | mW   |
| Junction temperature      | $T_{j}$        | 150     | °C   |
| Storage temperature       | $T_{stg}$      | -55~150 | °C   |

## **Electrical Characteristics**

(Ta=25°C)

| Characteristic                       | Symbol            | Test Condition                              | Min. | Typ. | Max. | Unit |
|--------------------------------------|-------------------|---|------|------|------|------|
| Collector-Base breakdown voltage     | BV <sub>CBO</sub> | $I_{C}=100\mu A,\ I_{E}=0$                  | 35   | 1    | -    | V    |
| Collector-Emitter breakdown voltage  | BV <sub>CEO</sub> | $I_C=1$ mA, $I_B=0$                         | 30   | 1    | -    | V    |
| Emitter-Base breakdown voltage       | BV <sub>EBO</sub> | $I_E=10\mu A,\ I_C=0$                       | 5    | -    | -    | V    |
| Collector cut-off current            | $I_{CBO}$         | $V_{CB} = 35V, I_{E} = 0$                   | -    | -    | 0.1  | μΑ   |
| Emitter cut-off current              | $I_{EBO}$         | $V_{EB}=5V$ , $I_C=0$                       | -    | -    | 0.1  | μΑ   |
| DC current gain                      | h <sub>FE</sub> * | V <sub>CE</sub> =1V, I <sub>C</sub> =100mA  | 100  | -    | 320  | -    |
| Collector-Emitter saturation voltage | $V_{CE(sat)}$     | I <sub>C</sub> =500mA, I <sub>B</sub> =50mA | -    | -    | 0.5  | V    |
| Transition frequency                 | f <sub>T</sub>    | $V_{CE}$ =5V, $I_{C}$ =10mA                 | -    | 120  | -    | MHz  |
| Collector output capacitance         | C <sub>ob</sub>   | $V_{CB}=10V$ , $I_{E}=0$ , $f=1MHz$         | -    | 13   | -    | pF   |

<sup>\* :</sup>  $h_{FE}$  rank / O : 100  $\sim$  200, Y : 160  $\sim$  320

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### **Electrical Characteristic Curves**

Fig. 1  $P_C$  -  $T_a$ 

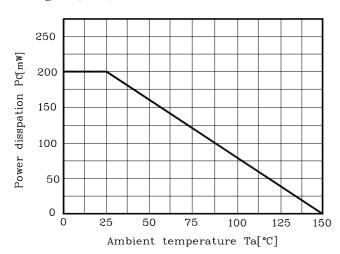


Fig. 3  $I_{C}\;$  -  $V_{CE}$ 

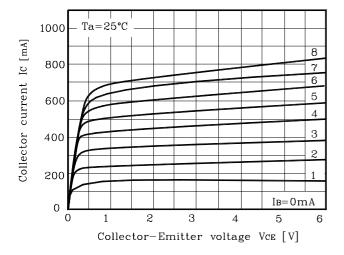


Fig. 5  $h_{FE}$  -  $I_{C}$ 

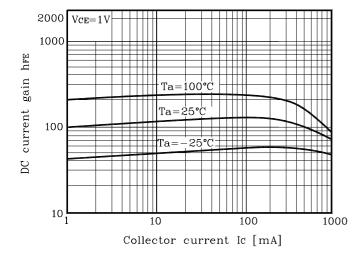


Fig. 2  $I_{C}\;$  -  $V_{BE}$ 

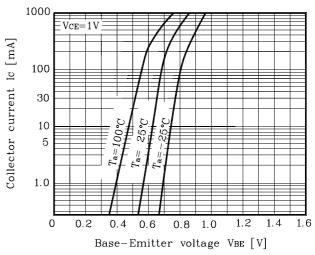
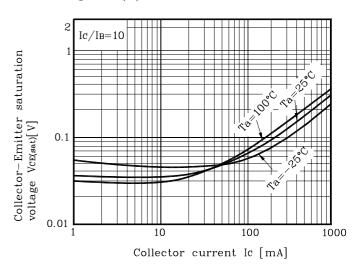


Fig. 4  $V_{CE(sat)}$  -  $I_C$ 



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