

2SA1979S

PNP Silicon Transistor

Description

Medium power amplifier

Features

- Large collector current : I_{CMax}=-500mA
- Suitable for low-Voltage operation because of its low saturation voltage
- Complementary pair with 2SC5342S

Ordering Information

| Type NO. | Marking | Package Code | | |
|----------|-------------------------|--------------|--|--|
| 2SA1979S | $AA\square$ | SOT-23 | | |
| | ☐: h _{FE} rank | - CO. CO. | | |

Outline Dimensions

unit: mm 2.3~2.5 1.2~1.4 1 1.90 Typ. 3 0.4 Typ. 0.45~0.60 0.2 Min. 0.094~0.174 **PIN Connections** 1. Base 2. Emitter 3. Collector



KST-2035-002

2SA1979S

Absolute maximum ratings

(Ta=25°C)

| Characteristic | Symbol | Ratings | Unit |
|---------------------------|----------------|---------|------|
| Collector-Base voltage | V_{CBO} | -40 | V |
| Collector-Emitter voltage | V_{CEO} | -32 | V |
| Emitter-Base voltage | V_{EBO} | -5 | V |
| Collector current | I_{C} | -500 | mA |
| Collector dissipation | P _C | 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 _{CBO} | $I_C = -100 \mu A, I_E = 0$ | -40 | - | 1 | V |
| Collector-Emitter breakdown voltage | BV _{CEO} | $I_C=-1$ mA, $I_B=0$ | -32 | 1 | - | V |
| Emitter-Base breakdown voltage | BV_{EBO} | $I_E = -10 \mu A, I_C = 0$ | -5 | 1 | - | V |
| Collector cut-off current | I_{CBO} | V_{CB} =-40V, I_{E} =0 | - | - | -0.1 | μΑ |
| Emitter cut-off current | I_{EBO} | V_{EB} =-5V, I_C =0 | - | 1 | -0.1 | μΑ |
| DC current gain | h _{FE} * | V_{CE} =-1V, I_{C} =-100mA | 70 | 1 | 240 | - |
| Collector-Emitter saturation voltage | $V_{\text{CE(sat)}}$ | I _C =-100mA, I _B =-10mA | - | - | -0.25 | V |
| Transistor frequency | f_T | V_{CE} =-6V, I_{C} =-20mA | - | 200 | 1 | MHz |
| Collector output capacitance | C _{ob} | V_{CB} =-6V, I_E =0, f=1MHz | _ | 7.5 | - | pF |

^{* :} h_{FE} rank / O : 70~140, Y : 120~240

KST-2035-002 2

Electrical Characteristic Curves

Fig. 1 P_C - T_a

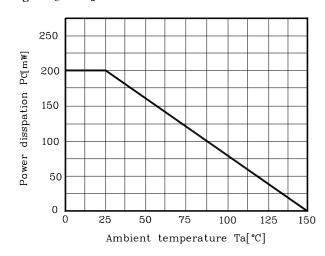


Fig. 2 $I_{C}\,$ - $\,V_{BE}\,$

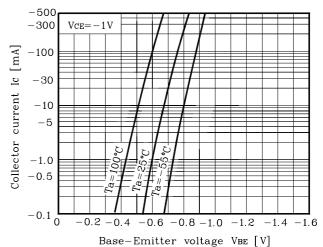


Fig. 3 I $_{\text{C}}\text{--}\ V_{\text{CE}}$

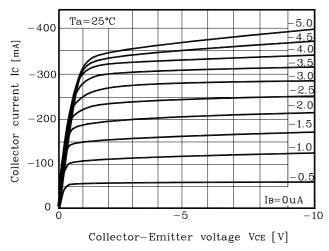


Fig. 4 $V_{CE(sat)}$ - I_C

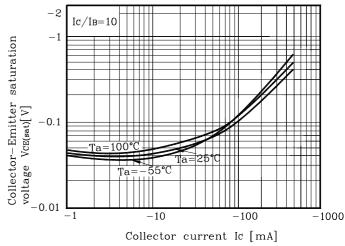


Fig. 5 $h_{FE}\$ - $\ I_{C}$

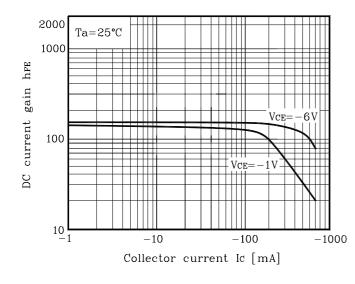
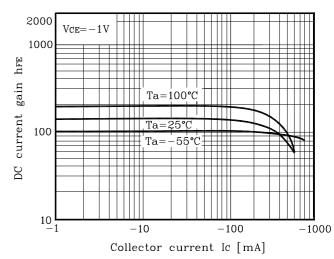


Fig. 6 $h_{FE}\,$ - $\,$ $\,I_{C}\,$



KST-2035-002 3

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KST-2035-002