

Descriptions

- General purpose application
- Switching application

Features

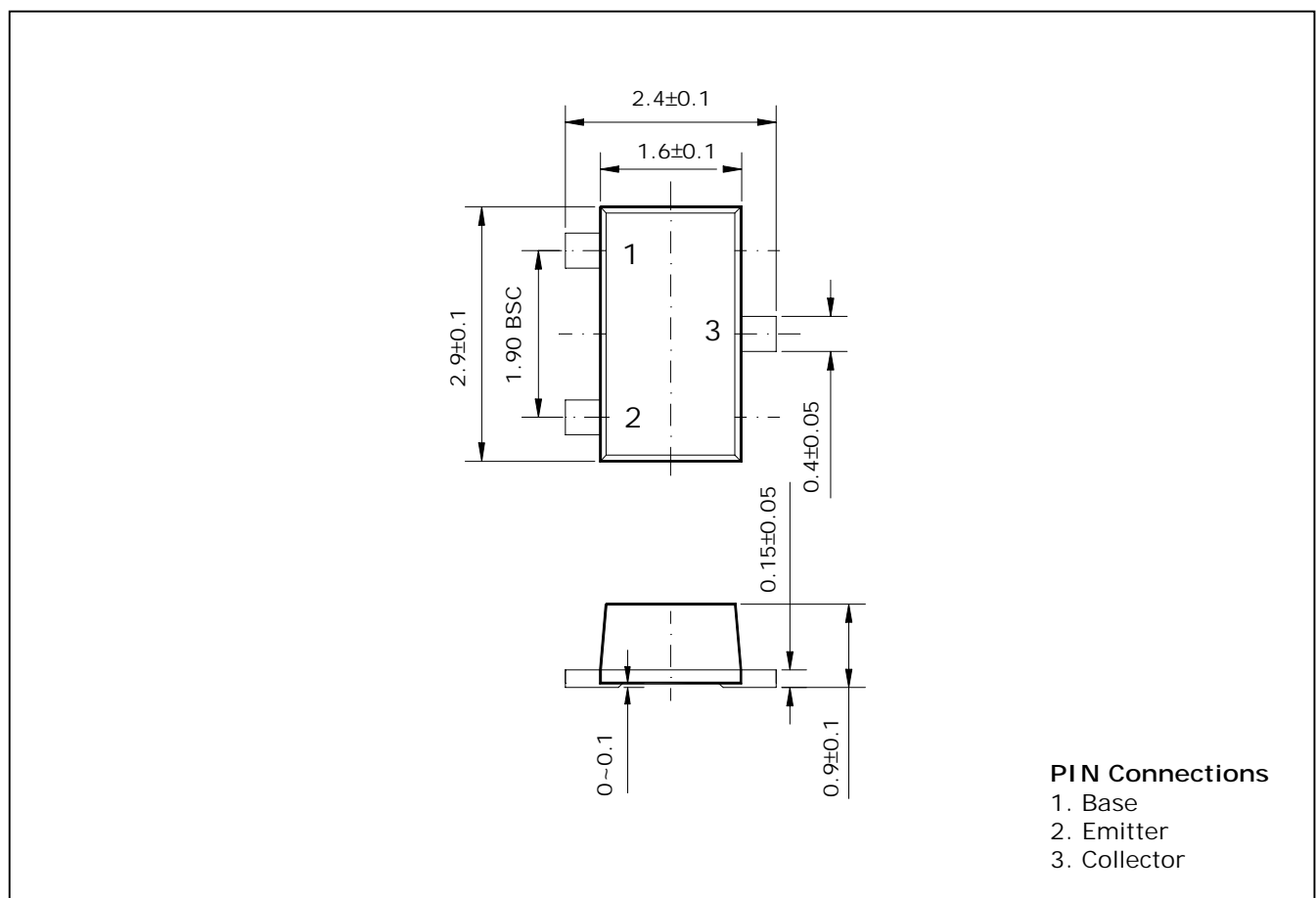
- Large collector current
- Low collector saturation voltage
- Complementary pair with STN2222SF

Ordering Information

| Type NO. | Marking | Package Code |
|-----------|---------|--------------|
| STN2907SF | GA | SOT-23F |

Outline Dimensions

unit : mm



Absolute maximum ratings

(Ta=25°C)

| Characteristic | Symbol | Ratings | Unit |
|---------------------------|-----------|-----------|------|
| Collector-Base voltage | V_{CBO} | -60 | V |
| Collector-Emitter voltage | V_{CEO} | -40 | V |
| Emitter-Base voltage | V_{EBO} | -5 | V |
| Collector current | I_C | -600 | mA |
| Collector dissipation | P_C^* | 350 | mW |
| Junction temperature | T_J | 150 | °C |
| Storage temperature | T_{stg} | -55 ~ 150 | °C |

* : Package mounted on 99.5% Alumina 10×8×0.1mm.

Electrical Characteristics

(Ta=25°C)

| Characteristic | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|--------------------------------------|---------------|------------------------------------|------|------|------|------|
| Collector-Base breakdown voltage | BV_{CBO} | $I_C = -10\mu A, I_E = 0$ | -60 | - | - | V |
| Collector-Emitter breakdown voltage | BV_{CEO} | $I_C = -10mA, I_B = 0$ | -40 | - | - | V |
| Emitter-Base breakdown voltage | BV_{EBO} | $I_E = -10\mu A, I_C = 0$ | -5 | - | - | V |
| Collector cut-off current | I_{CBO} | $V_{CB} = -60V, I_E = 0$ | - | - | -10 | nA |
| DC current gain | h_{FE} | $V_{CE} = -10V, I_C = -10mA$ | 75 | - | - | - |
| Collector-Emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -150mA, I_B = -15mA$ | - | - | -0.4 | V |
| Transistor frequency | f_T | $V_{CE} = -20V, I_C = -20mA$ | 250 | - | - | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = -10V, I_E = 0, f = 1MHz$ | - | 6.0 | - | pF |

Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

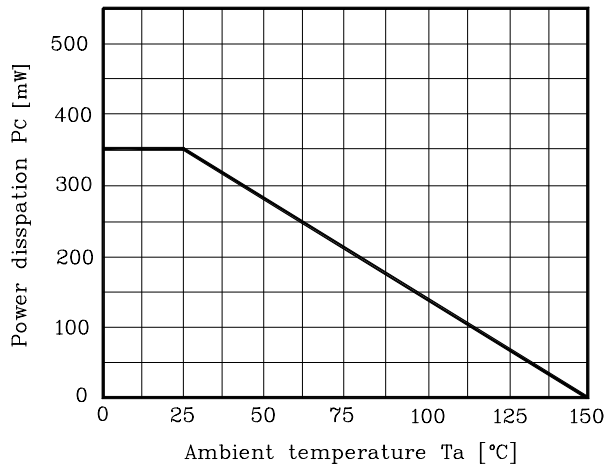


Fig. 2 $I_C - V_{BE}$

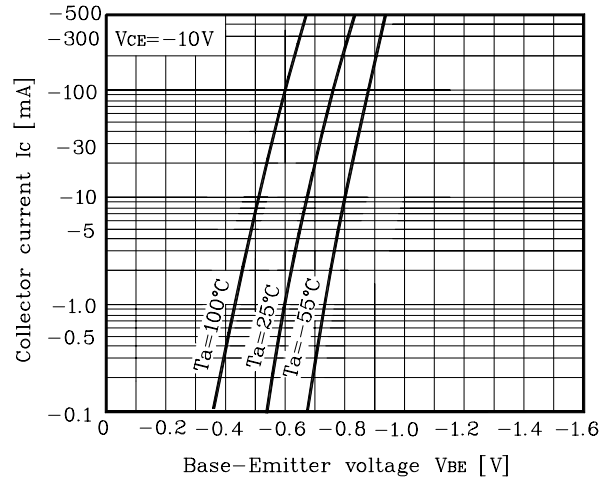


Fig. 3 $I_C - V_{CE}$

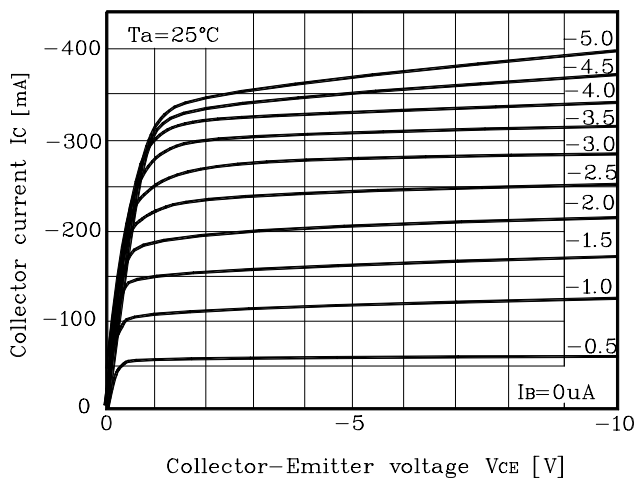


Fig. 4 $V_{CE(sat)} - I_C$

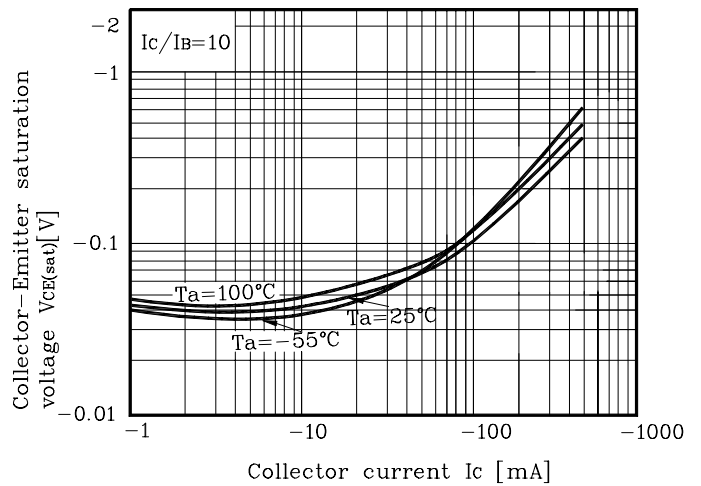


Fig. 5 $h_{FE} - I_C$

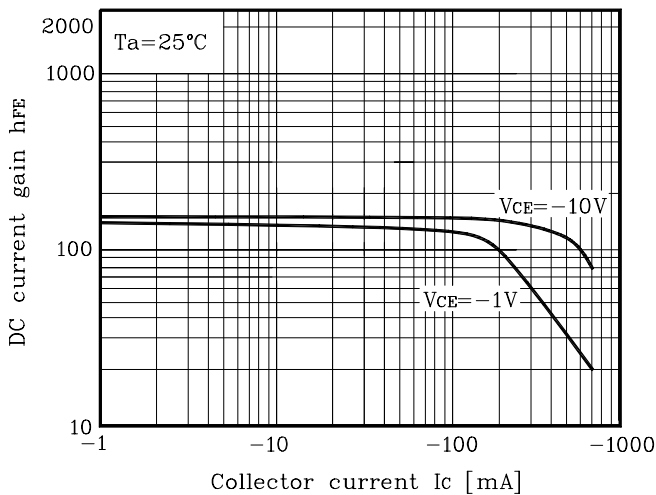


Fig. 6 $h_{FE} - I_C$

