

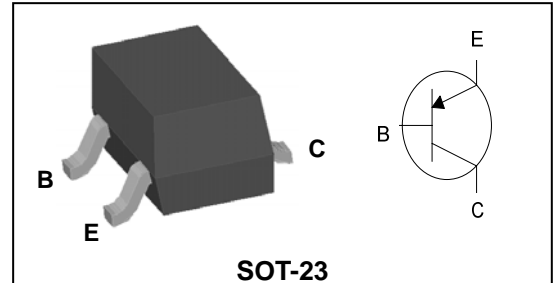
Descriptions

- General purpose application
- Switching application

Features

- Large collector current
- Low collector saturation voltage
- Complementary pair with STN2222AS

PIN Connection



Ordering Information

| Type NO. | Marking | Package Code |
|-----------|-------------|--------------|
| STN2907AS | WA □ ① ② | SOT-23 |

① Device Code ② Year&Week Code

Absolute maximum ratings

(Ta=25°C)

| Characteristic | Symbol | Ratings | Unit |
|---------------------------|-----------|----------|------|
| Collector-Base voltage | V_{CBO} | -60 | V |
| Collector-Emitter voltage | V_{CEO} | -50 | 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} | $I_C = -10mA, I_B = 0$ | -50 | - | - | 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 |
| Transition 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 $P_C - T_a$

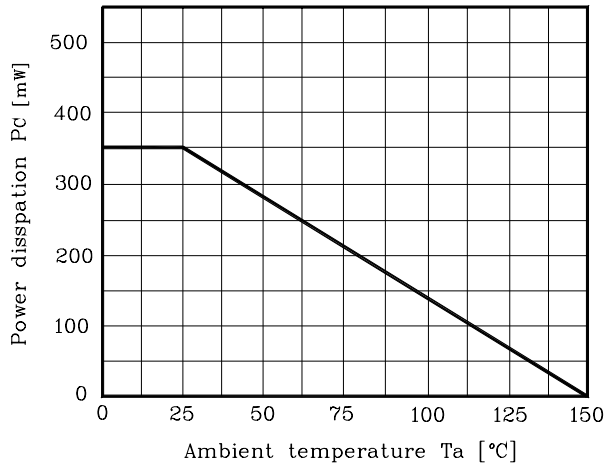


Fig. 2 $I_C - V_{BE}$

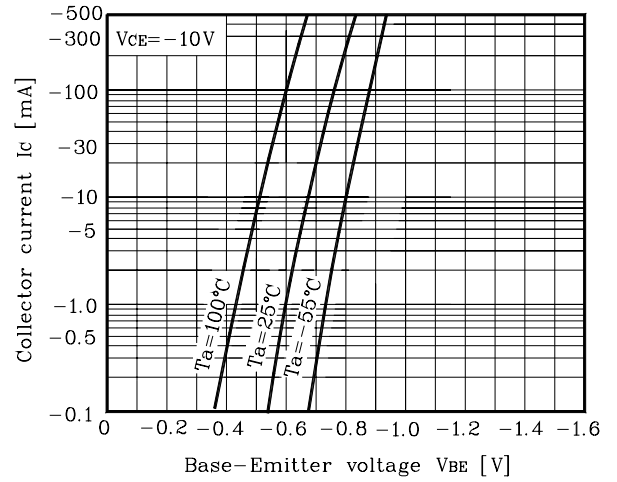


Fig. 3 $I_C - V_{CE}$

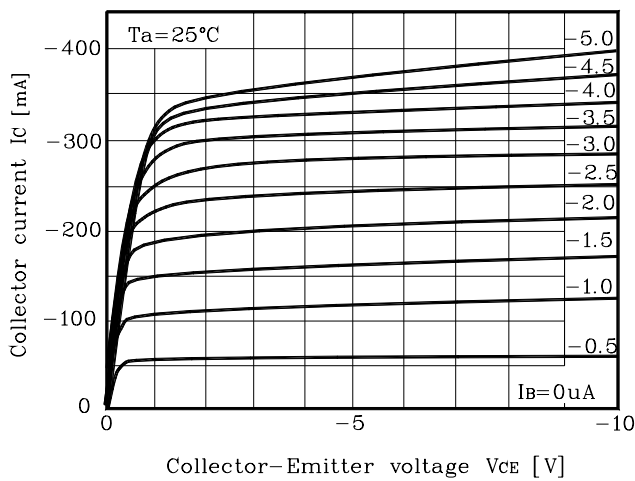


Fig. 4 $V_{CE(sat)} - I_C$

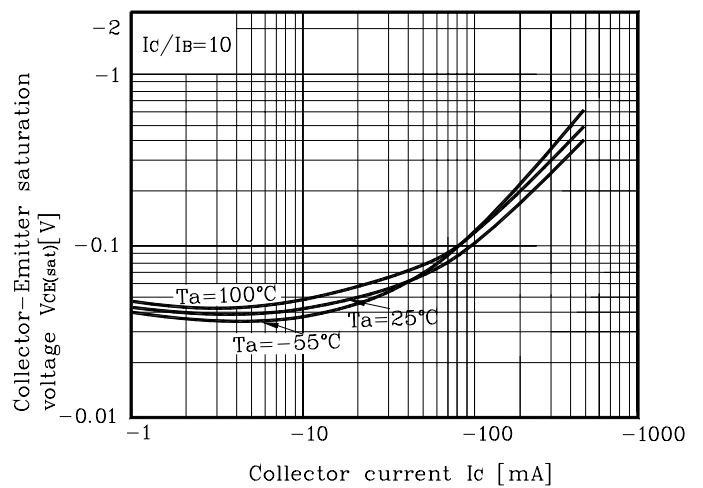


Fig. 5 $h_{FE} - I_C$

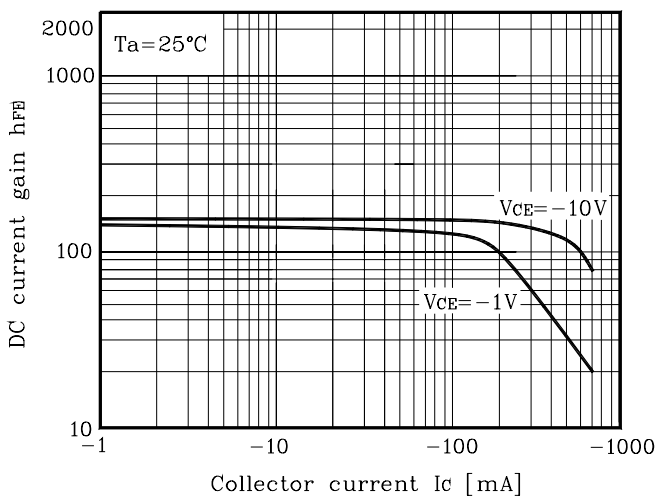
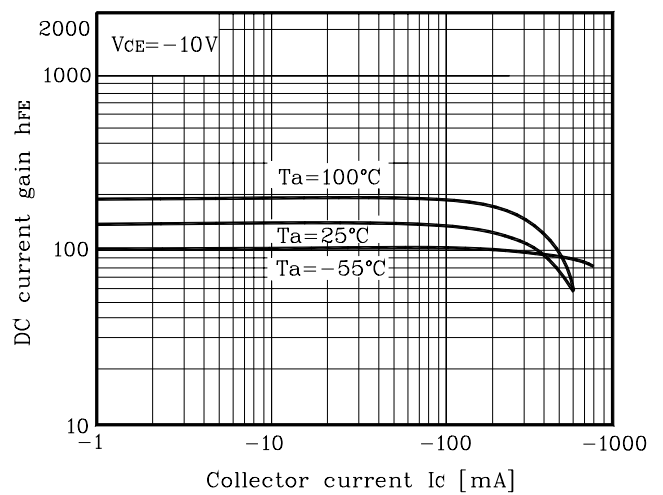
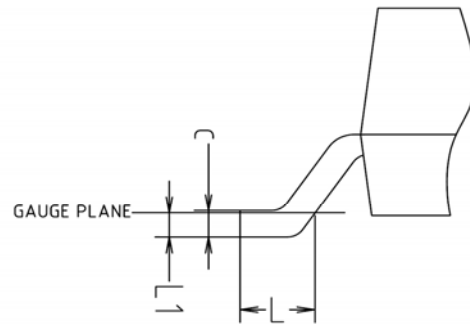
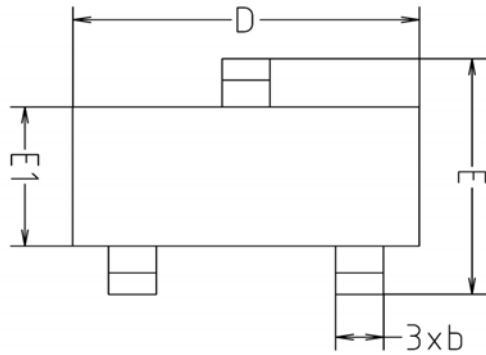


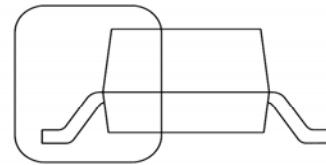
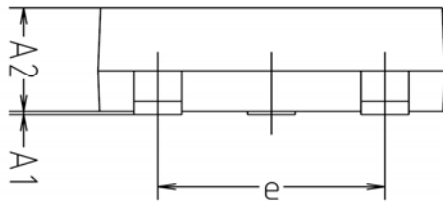
Fig. 6 $h_{FE} - I_C$



Outline Dimension



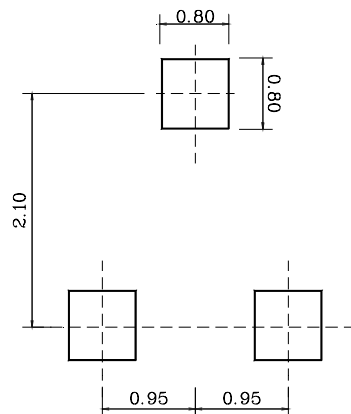
DETAIL 'A'



SEE DETAIL 'A'

| SYMBOL | MILLIMETERS | | | NOTE |
|--------|-------------|---------|---------|------|
| | MINIMUM | NOMINAL | MAXIMUM | |
| A1 | 0.00 | - | 0.10 | |
| A2 | 0.82 | - | 1.02 | |
| b | 0.39 | 0.42 | 0.45 | |
| c | 0.09 | 0.12 | 0.15 | |
| D | 2.80 | 2.90 | 3.00 | |
| E | 2.20 | 2.40 | 2.60 | |
| E1 | 1.20 | 1.30 | 1.40 | |
| e | 1.90BSC | | | |
| L | 0.20 | - | - | |
| L1 | 0.12BSC | | | |

※Recommend PCB solder land [Unit: mm]



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