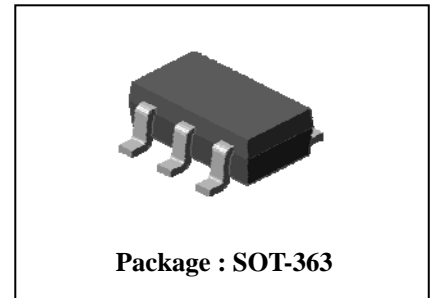


## Description

- Complex type bipolar transistor

## Feature

- Small package save PCB area
- Reduce quantity of parts and mounting cost
- Two 2SA1980 chips in SOT-363 package

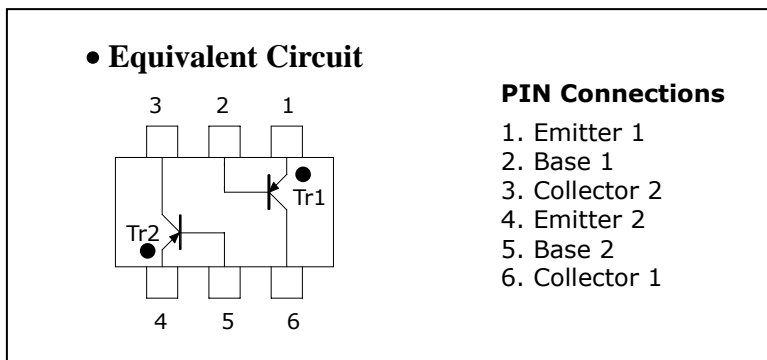


## Ordering Information

| Type NO. | Marking | Package Code |
|----------|---------|--------------|
| SUT487J  | XX□     | SOT-363      |

□ : Year & Week Code

## Equivalent circuit & PIN Connections



## Absolute Maximum Ratings [Tr1, Tr2]

(Ta=25°C)

| Characteristic              | Symbol    | Rating  | Unit |
|-----------------------------|-----------|---------|------|
| Collector-base voltage      | $V_{CBO}$ | -50     | V    |
| Collector-emitter voltage   | $V_{CEO}$ | -50     | V    |
| Emitter-base voltage        | $V_{EBO}$ | -5      | V    |
| Collector current           | $I_C$     | -150    | mA   |
| Collector power dissipation | $P_C^*$   | 200     | mW   |
| Junction temperature        | $T_J$     | 150     | °C   |
| Storage temperature range   | $T_{stg}$ | -55~150 | °C   |

※: Total rating

**Electrical Characteristics [Tr1,Tr2]**

(Ta=25°C)

| Characteristic                       | Symbol        | Test Condition                                   | Min. | Typ.  | Max. | Unit          |
|--------------------------------------|---------------|--|------|-------|------|---------------|
| Collector-emitter breakdown voltage  | $BV_{CEO}$    | $I_C = -1\text{mA}, I_B = 0$                     | -50  | -     | -    | V             |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = -50\text{V}, I_E = 0$                  | -    | -     | -0.1 | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -5\text{V}, I_C = 0$                   | -    | -     | -0.1 | $\mu\text{A}$ |
| DC current gain                      | $h_{FE}$      | $V_{CE} = -6\text{V}, I_C = -2\text{mA}$         | 120  | -     | 400  | -             |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -100\text{mA}, I_B = -10\text{mA}$        | -    | -     | -0.3 | V             |
| Base-emitter voltage                 | $V_{BE}$      | $V_{CE} = -6\text{V}, I_C = -2\text{mA}$         | -    | -0.65 | -    | V             |
| Transition frequency                 | $f_T$         | $V_{CE} = -10\text{V}, I_C = -10\text{mA}$       | -    | 200   | -    | MHz           |
| Collector output capacitance         | $C_{ob}$      | $V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$ | -    | 4     | -    | pF            |

Electrical Characteristic Curves

[Tr1, Tr2]

Fig. 1  $I_C - V_{BE}$

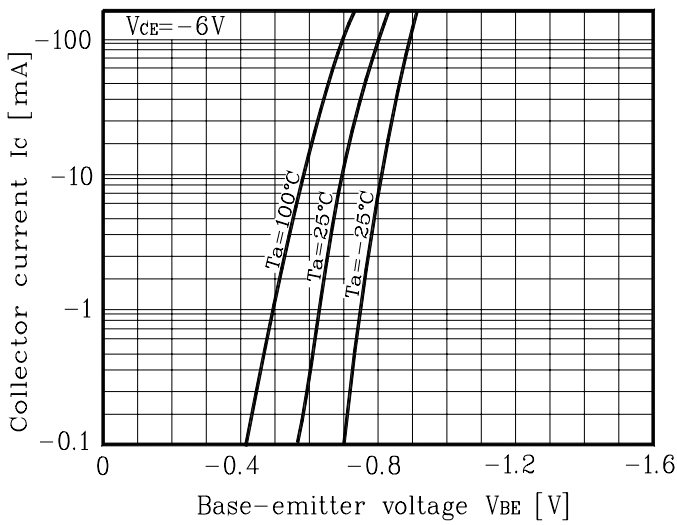


Fig. 2  $I_C - V_{CE}$

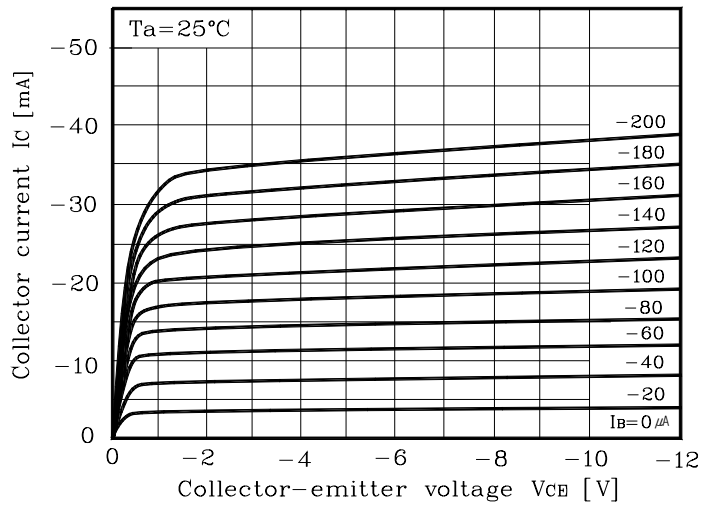


Fig. 3  $h_{FE} - I_C$

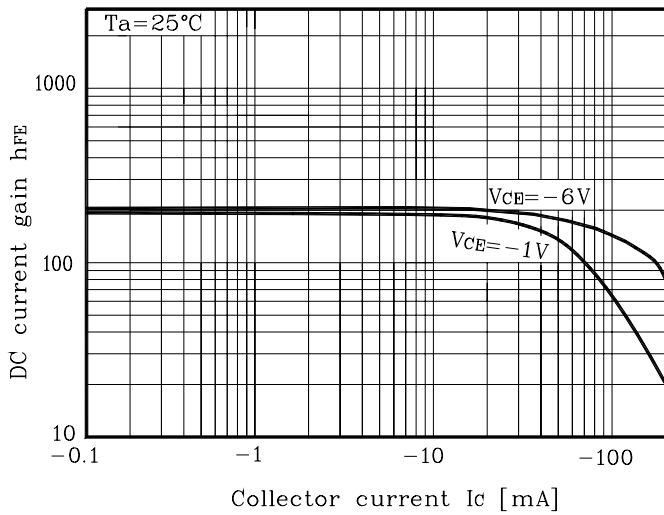


Fig. 4  $V_{CE(sat)} - I_C$

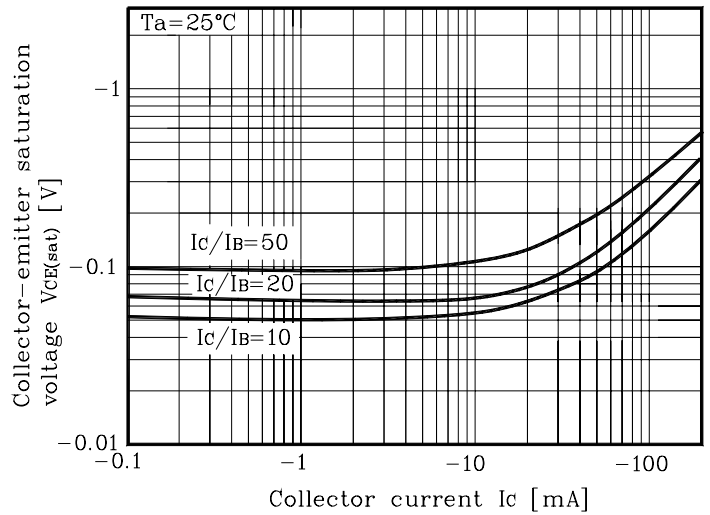
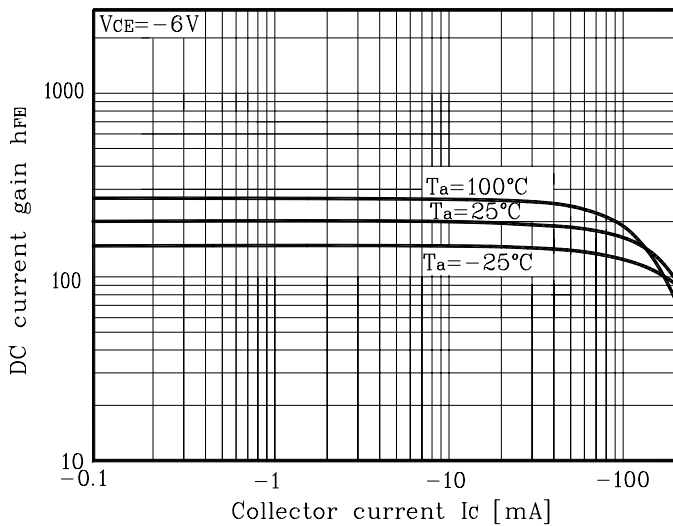
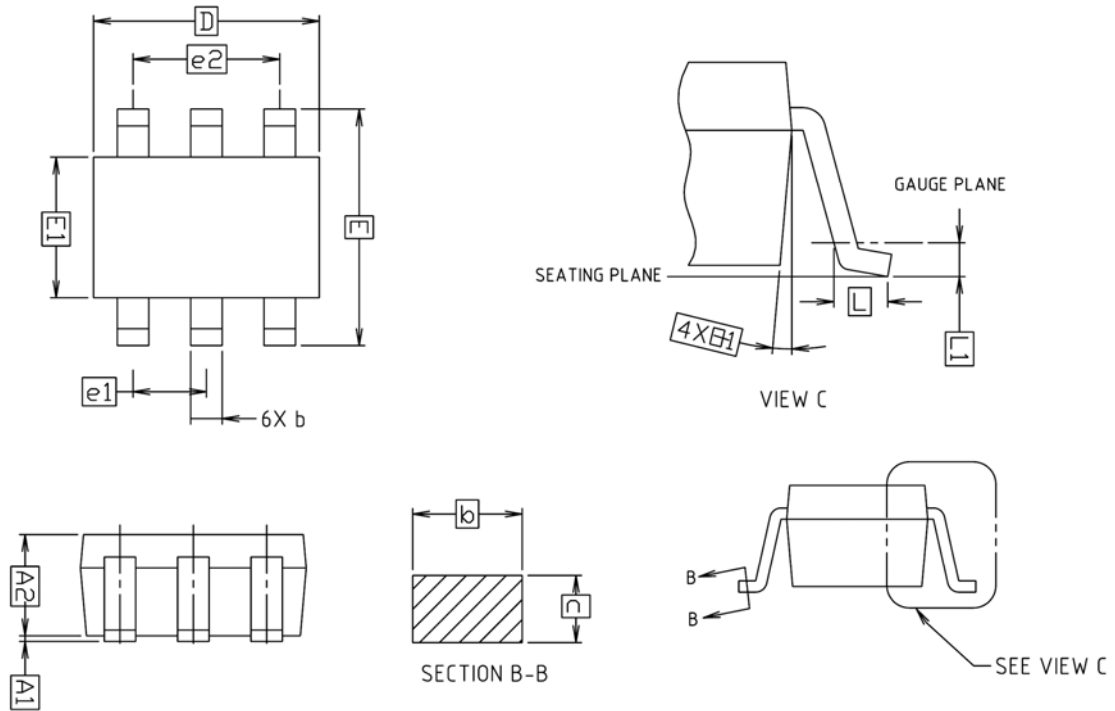


Fig. 5  $h_{FE} - I_C$

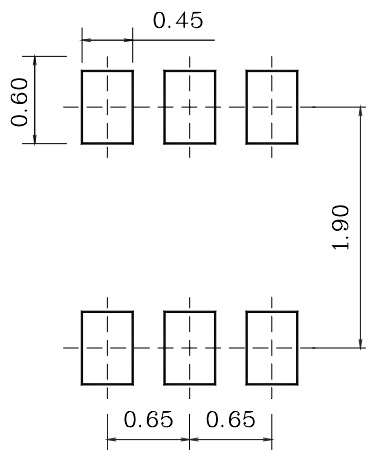


Outline Dimension



| SYMBOL | MILLIMETERS |         |         | NOTE |
|--------|-------------|---------|---------|------|
|        | MINIMUM     | NOMINAL | MAXIMUM |      |
| A1     | 0.00        | -       | 0.10    |      |
| A2     | 0.90        | 0.95    | 1.00    |      |
| b      | 0.25        | -       | 0.40    |      |
| c      | 0.10        | -       | 0.25    |      |
| D      | 1.90        | 2.00    | 2.10    |      |
| E      | 1.95        | 2.10    | 2.25    |      |
| E1     | 1.15        | 1.25    | 1.35    |      |
| e1     | 0.65 BSC    |         |         |      |
| e2     | 1.30 BSC    |         |         |      |
| L      | 0.25        | -       | -       |      |
| L1     | 0.15 BSC    |         |         |      |

※ Recommend PCB solder land [Unit: mm]



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