# 2SC4913

Silicon NPN Triple Diffused

HITACHI

## Application

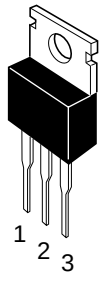
High voltage amplifier

## Features

- High breakdown voltage
- $V_{(BR)CEO}$ = 2000 V min

## Outline

TO-220AB




1. Base
2. Collector (Flange)
3. Emitter

Hitachi semiconductor

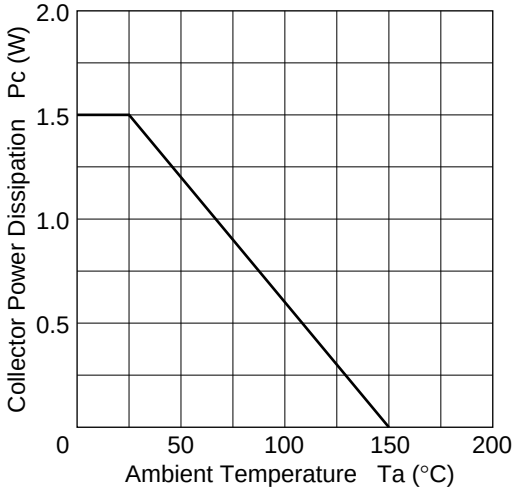
## Absolute Maximum Ratings (Ta = 25°C)

| Item | Symbol | Ratings | Unit |
|---|---|---|---|
| Collector to base voltage | $V_{CBO}$ | 2000 | V |
| Collector to emitter voltage | $V_{CEO}$ | 2000 | V |
| Emitter to base voltage | $V_{EBO}$ | 6 | V |
| Collector current | $I_C$ | 20 | mA |
| Collector peak current | $I_{C(peak)}$ | 40 | mA |
| Collector power dissipation | $P_C$ | 1.5 | W |
| Junction temperature | Tj | 150 | °C |
| Storage temperature | Tstg | –55 to +150 | °C |

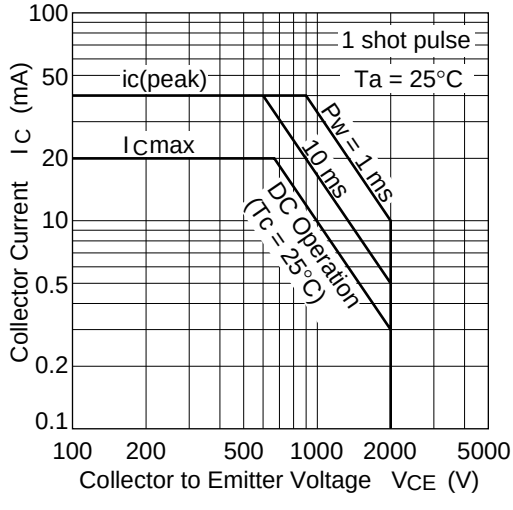
## Electrical Characteristics (Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|---|---|---|---|---|---|
| Collector cutoff current | $I_{CES}$ | — | — | 500 | µA | $V_{CE}$ = 2000 V, $R_{BE}$ = 0 |
| Collector cutoff current | $I_{CEO}$ | — | — | 5 | mA | $V_{CE}$ = 2000 V, $R_{BE}$ = ∞ |
| Emitter cutoff current | $I_{EBO}$ | — | — | 500 | µA | $V_{EB}$ = 6 V, $I_C$ = 0 |
| DC current transfer ratio | $h_{FE}$ | 10 | — | — | | $V_{CE}$ = 5 V, $I_C$ = 1 mA |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | — | — | 5.0 | V | $I_C$ = 10 mA, $I_B$ = 2 mA |

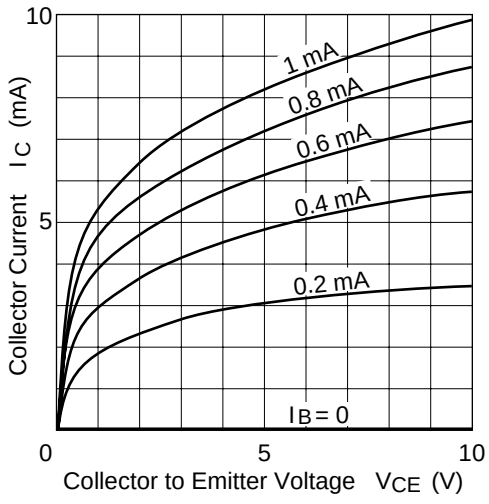
Maximum Collector Power Dissipation Curve



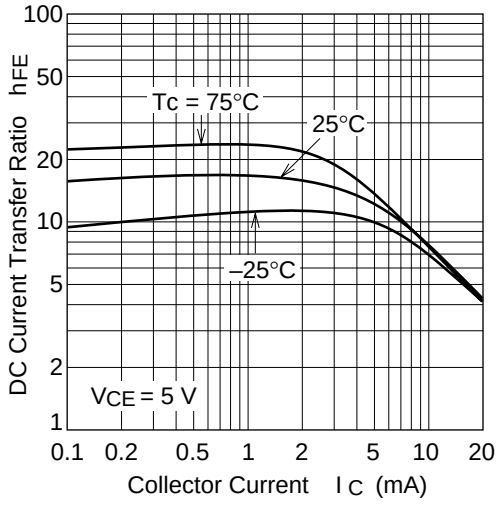

Area of Safe Operation



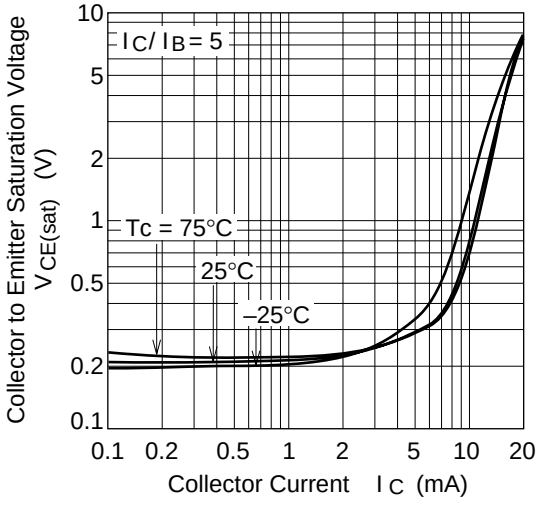
Typical Output Characteristics



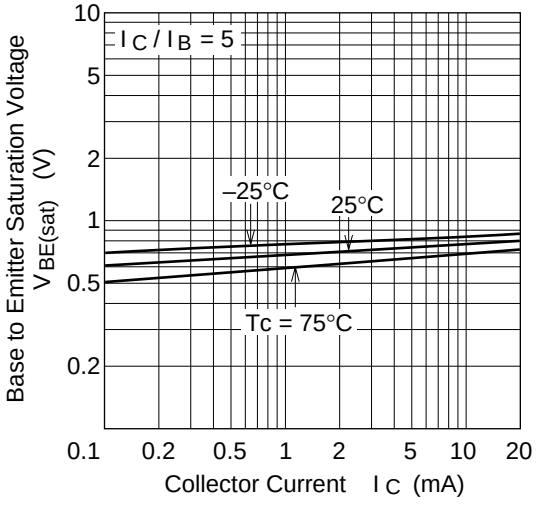

DC Current Transfer Ratio vs. Collector Current



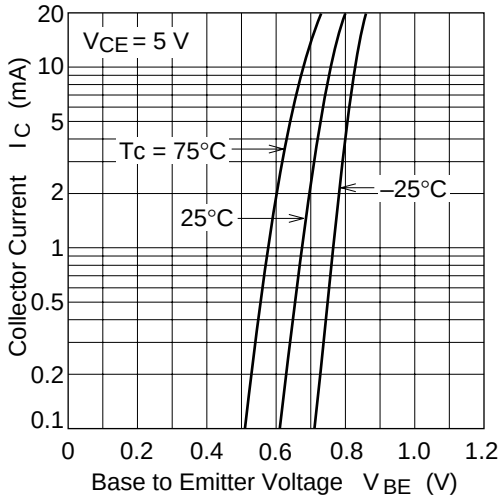

Collector to Emitter Saturation Voltage vs. Collector Current



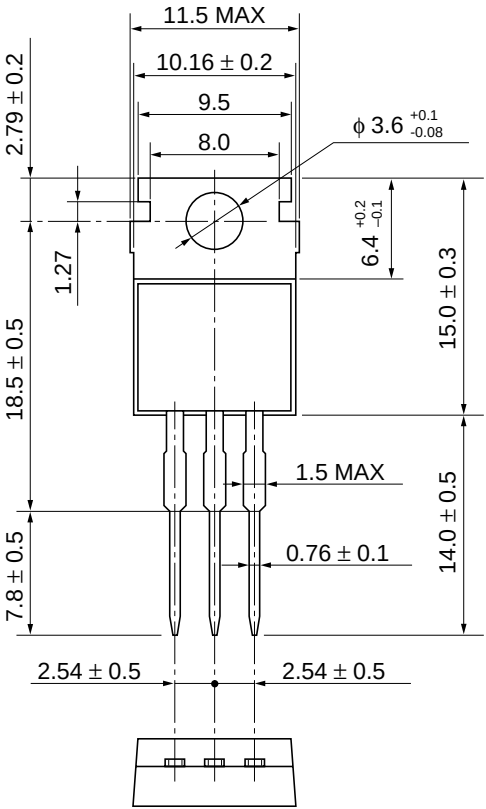

Base to Emitter Saturation Voltage vs. Collector Current

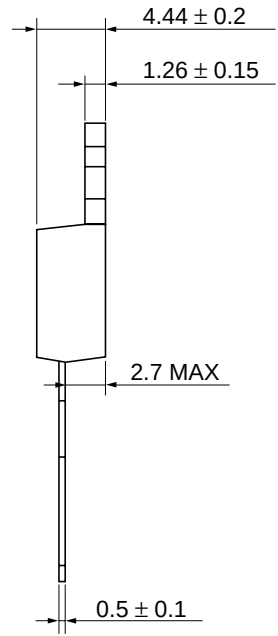


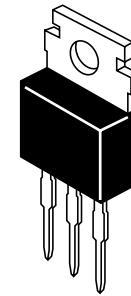
Collector Current vs. Base to Emitter Voltage



Unit: mm



| | |
|---|---|
| Hitachi Code | TO-220AB |
| JEDEC | Conforms |
| EIAJ | Conforms |
| Weight (reference value) | 1.8 g |

## Cautions

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