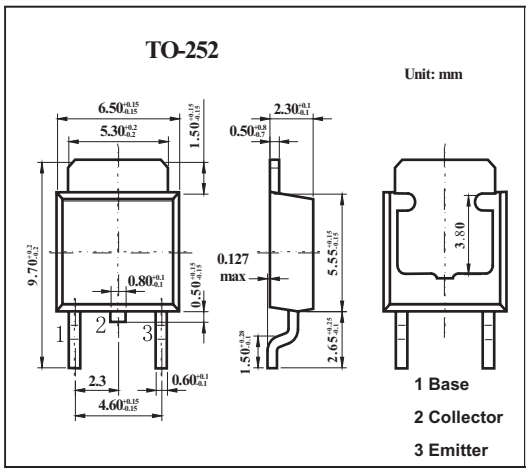
# Silicon PNP Epitaxial Planar Type

# 2SB1574




## ■ Features

- Possible to tsolder radiation fin directly to printed circuit boad.
- Type with universal characteristics.
- High collector-base voltage (Emitter open) $V_{CBO}$.
- High collector-emitter voltage (Base open) $V_{CEO}$.
- Large collector current $I_C$.

## ■ Absolute Maximum Ratings Ta = 25℃

| Parameter | 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 | $I_C$ | -2 | A |
| Peak collector current | $I_{CP}$ | -3 | A |
| Collector power dissipation | $P_C$ | 10 | W |
| Junction temperature | $T_j$ | 150 | ℃ |
| Storage temperature | $T_{stg}$ | -55 to +150 | ℃ |

## ■ Electrical Characteristics Ta = 25℃

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector-base voltage | $V_{CBO}$ | $I_C$ = -10 μA, $I_E$ = 0 | -50 | | | V |
| Collector-emitter voltage | $V_{CEO}$ | $I_C$ = -1 mA, $I_B$ = 0 | -50 | | | V |
| Emitter-base voltage | $V_{EBO}$ | $I_E$ = -10 μA, $I_C$ = 0 | -5 | | | V |
| Collector-base cutoff curent | $I_{CBO}$ | $V_{CB}$ = -10 V,$I_E$ = 0 | | | -0.1 | μA |
| Forward current transfer ratio | $h_{FE}$ | $V_{CE}$ = -2 V, $I_C$ = -200 mA | 120 | | 340 | V |
| | | $V_{CE}$ = -2 V, $I_C$ = -1A | 60 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C$ = -1 A, $I_B$ = -50 mA | | -0.2 | -0.3 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C$ = -1 A, $I_B$ = -50 mA | | -0.85 | -1.2 | V |
| Transition frequency | $f_T$ | $V_{CE}$ = -10 V, $I_C$ = -50 mA , f = 200 MHz | | 80 | | MHz |
| Collector output capacitance | $C_{ob}$ | $V_{CB}$ = -10V , $I_E$ = 0 , f = 1.0MHz | | 45 | 60 | pF |

## ■ $h_{FE}$ Classification

| Rank | R | S |
|---|---|---|
| $h_{FE}$ | 120～240 | 170～340 |