

Silicon PNP Epitaxial Planar Type

2SB1574

■ Features

- Possible to solder radiation fin directly to printed circuit board.
- Type with universal characteristics.
- High collector-base voltage (Emitter open) V_{CB0} .
- High collector-emitter voltage (Base open) V_{CE0} .
- Large collector current I_C .

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|-----------------------------|-----------|-------------|------------------|
| Collector-base voltage | V_{CB0} | -50 | V |
| Collector-emitter voltage | V_{CE0} | -50 | V |
| Emitter-base voltage | V_{EB0} | -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 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|---|-----|-------|------|---------------|
| Collector-base voltage | V_{CB0} | $I_C = -10 \mu\text{A}$, $I_E = 0$ | -50 | | | V |
| Collector-emitter voltage | V_{CE0} | $I_C = -1 \text{ mA}$, $I_B = 0$ | -50 | | | V |
| Emitter-base voltage | V_{EB0} | $I_E = -10 \mu\text{A}$, $I_C = 0$ | -5 | | | V |
| Collector-base cutoff current | I_{CBO} | $V_{CB} = -10 \text{ V}$, $I_E = 0$ | | | -0.1 | μA |
| Forward current transfer ratio | h_{FE} | $V_{CE} = -2 \text{ V}$, $I_C = -200 \text{ mA}$ | 120 | | 340 | V |
| | | $V_{CE} = -2 \text{ V}$, $I_C = -1 \text{ A}$ | 60 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -1 \text{ A}$, $I_B = -50 \text{ mA}$ | | -0.2 | -0.3 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C = -1 \text{ A}$, $I_B = -50 \text{ mA}$ | | -0.85 | -1.2 | V |
| Transition frequency | f_T | $V_{CE} = -10 \text{ V}$, $I_C = -50 \text{ mA}$, $f = 200 \text{ MHz}$ | | 80 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = -10 \text{ V}$, $I_E = 0$, $f = 1.0 \text{ MHz}$ | | 45 | 60 | pF |

■ h_{FE} Classification

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