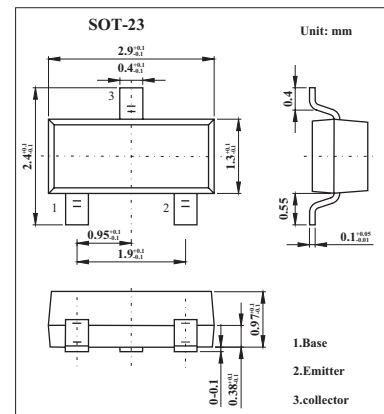


PNP Epitaxial Planar Silicon Transistors

2SB1527

■ Features

- Low saturation voltage.
- Contains a diode between collector and emitter.
- Contains a bias resistor between base and emitter.
- Large current capacity.
- Compact package making it easy to realize highdensity, small-sized hybrid ICs.

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

| Parameter | Symbol | Rating | Unit |
|---------------------------|-----------|-------------|------------------|
| Collector-base voltage | V_{CB0} | -20 | V |
| Collector-emitter voltage | V_{CEO} | -15 | V |
| Emitter-base voltage | V_{EBO} | -5 | V |
| Collector current | I_C | -0.8 | A |
| Collector current (pulse) | I_{CP} | -2 | A |
| Collector dissipation | P_C | 200 | mW |
| 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 | Testconditions | Min | Typ | Max | Unit |
|--|---------------|---|-----|--------|------|---------------|
| Collector cutoff current | I_{CBO} | $V_{CB} = -15\text{V}, I_E = 0$ | | | -1 | μA |
| DC current Gain | h_{FE} | $V_{CE} = -2\text{V}, I_C = -0.5\text{A}$ | 70 | | | |
| Gain bandwidth product | f_T | $V_{CE} = -2\text{V}, I_C = -0.5\text{A}$ | | 250 | | MHz |
| Output capacitance | C_{ob} | $V_{CB} = -10\text{V}, f = 1\text{MHz}$ | | 30 | | pF |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -500\text{mA}, I_B = -10\text{mA}$ | | -0.2 | -0.4 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C = -500\text{mA}, I_B = -10\text{mA}$ | | -0.095 | -1.3 | V |
| Collector-to-base breakdown voltage | $V_{(BR)CBO}$ | $I_C = -10\mu\text{A}, I_E = 0$ | -20 | | | V |
| Collector-to-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C = -1\text{mA}, R_{BE} = \infty$ | -15 | | | V |
| Diode forward voltage | V_F | $I_F = -0.5\text{A}$ | | | -1.5 | V |
| Base-emitter resistance | R_{BE} | | | 1 | | K Ω |

■ Marking

| Marking | NS |
|---------|----|
| | |