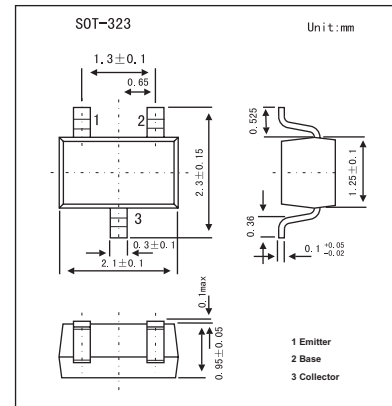


Silicon PNP Epitaxial Planar Type

2SB1218

■ Features

- High forward current transfer ratio h_{FE} .



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

| Parameter | Symbol | Rating | Unit |
|-----------------------------|-----------|-------------|------------------|
| Collector-base voltage | V_{CBO} | -45 | V |
| Collector-emitter voltage | V_{CEO} | -45 | V |
| Emitter-base voltage | V_{EBO} | -7 | V |
| Peak collector current | I_{CP} | -200 | A |
| Collector current | I_C | -100 | A |
| Collector power dissipation | P_C | 150 | 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-base voltage | V_{CBO} | $I_C = -10 \mu\text{A}$, $I_E = 0$ | -45 | | | V |
| Collector-emitter voltage | V_{CEO} | $I_C = -2 \text{ mA}$, $I_B = 0$ | -45 | | | V |
| Emitter-base voltage | V_{EBO} | $I_E = -10 \mu\text{A}$, $I_C = 0$ | -7 | | | V |
| Collector-base cutoff current | I_{CBO} | $V_{CB} = -20 \text{ V}$, $I_E = 0$ | | | -0.1 | μA |
| Collector-emitter cutoff current | I_{CEO} | $V_{CE} = -10 \text{ V}$, $I_B = 0$ | | | -100 | μA |
| Forward current transfer ratio | h_{FE} | $V_{CE} = -10 \text{ V}$, $I_C = -2 \text{ mA}$ | 160 | | 460 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -100 \text{ mA}$, $I_B = -10 \text{ mA}$ | | -0.3 | -0.5 | V |
| Transition frequency | f_T | $V_{CB} = -10 \text{ V}$, $I_E = 1 \text{ mA}$, $f = 200 \text{ MHz}$ | | 80 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = -10 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$ | | 2.7 | | pF |

■ h_{FE} Classification

| | | | | |
|----------|---------|---------|---------|---------|
| Marking | BQ | BR | BS | B |
| Rank | Q | R | S | No-rank |
| h_{FE} | 160~260 | 210~340 | 290~460 | 160~460 |