

Power Transistor

2SB1275

■ Features

- High breakdown voltage.($V_{CE0} = -160V$)
- Low collector output capacitance.
Typ. 30pF at $V_{CB} = 10V$
- High transition frequency.($f_T = 50MHz$)

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

| Parameter | Symbol | Rating | Unit |
|-----------------------------|-----------|-------------|-----------------------|
| Collector-base voltage | V_{CBO} | -160 | V |
| Collector-emitter voltage | V_{CEO} | -160 | V |
| Emitter-base voltage | V_{EBO} | -5 | V |
| Collector current | I_C | -1.5 | A(DC) |
| | | -3 | A(Pulse) |
| Collector power dissipation | P_C | 1 | W($T_c=25^\circ C$) |
| | | 10 | |
| Junction temperature | T_j | 150 | $^\circ C$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ C$ |

■ Electrical Characteristics $T_a = 25^\circ C$

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|---------------------------------------|------|-----|-----|---------|
| Collector-base breakdown voltage | V_{CBO} | $I_C = -50\mu A$ | -160 | | | V |
| Collector-emitter breakdown voltage | V_{CEO} | $I_C = -1mA$ | -160 | | | V |
| Emitter-base breakdown voltage | V_{EBO} | $I_E = -50\mu A$ | -5 | | | V |
| Collector cutoff current | I_{CBO} | $V_{CB} = -120V$ | | | -1 | μA |
| Emitter cutoff current | I_{EBO} | $V_{EB} = -4V$ | | | -1 | μA |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C/I_B = -1A/-0.1A$ | | | -2 | V |
| DC current transfer ratio | h_{FE} | $V_{CE} = -5V, I_C = -0.1A$ | 82 | | 180 | |
| Transition frequency | f_T | $V_{CE} = -5V, I_E = 0.1A, f = 30MHz$ | | 50 | | MHz |
| Output capacitance | C_{ob} | $V_{CB} = -10V, I_E = 0A, f = 1MHz$ | | 30 | | pF |

■ hFE Classification

| TYPE | P |
|------|-----------|
| hFE | 82 to 180 |