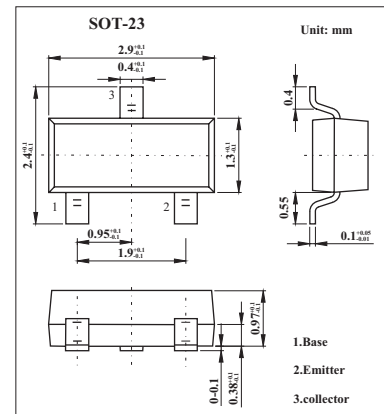


PNP Silicon AF an Switching Transistors

BCX42

■ Features

- For general AF applications
- High breakdown voltage
- Low collector-emitter saturation voltage

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

| Parameter | Symbol | Rating | Unit |
|----------------------------|------------|-------------|------------------|
| Collector-base voltage | V_{CBO} | 125 | V |
| Collector-emitter voltage | V_{CEO} | 125 | V |
| Emitter-base voltage | V_{EBO} | 5 | V |
| Collector current | I_C | 800 | mA |
| Peak collector current | I_{CM} | 1 | A |
| Base current | I_B | 100 | mA |
| Peak base current | I_{BM} | 200 | mA |
| Total power dissipation | P_{tot} | 330 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Junction - soldering point | R_{thJS} | ≤ 215 | K/W |

BCX42

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

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|--|-----------------|---|-----|-----|-----|---------------|
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_c = 10\text{ mA}, I_B = 0$ | 125 | | | V |
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_c = 100\ \mu\text{A}, I_B = 0$ | 125 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E = 10\ \mu\text{A}, I_c = 0$ | 5 | | | V |
| Collector cutoff current | I_{CBO} | $V_{CB} = 100\text{ V}, I_E = 0$ | | | 100 | nA |
| | | $V_{CB} = 100\text{ V}, I_E = 0, T_A = 150\ ^\circ\text{C}$ | | | 20 | μA |
| Emitter cutoff current | I_{EBO} | $V_{EB} = 4\text{ V}, I_c = 0$ | | | 100 | nA |
| Collector cutoff current | I_{CEO} | $V_{CE} = 100\text{ V}, T_A = 85\ ^\circ\text{C}$ | | | 10 | μA |
| | | $V_{CE} = 100\text{ V}, T_A = 125\ ^\circ\text{C}$ | | | 75 | μA |
| DC current gain * | hFE | $I_c = 100\ \mu\text{A}, V_{CE} = 1\text{ V}$ $I_c = 100\text{ mA}, V_{CE} = 1\text{ V}$ $I_c = 200\text{ mA}, V_{CE} = 1\text{ V}$ | 25 | | | |
| | | | 63 | | | |
| | | | 40 | | | |
| Collector-emitter saturation voltage * | $V_{CE(sat)}$ | $I_c = 300\text{ mA}, I_B = 30\text{ mA}$ | | | 0.9 | V |
| Base-emitter saturation voltage * | $V_{BE(sat)}$ | $I_c = 300\text{ mA}, I_B = 30\text{ mA}$ | | | 1.4 | V |
| Transition frequency | f _r | $I_c = 20\text{ mA}, V_{CE} = 5\text{ V}, f = 20\text{ MHz}$ | | 150 | | MHz |
| Collector-base capacitance | C _{cb} | $V_{CB} = 10\text{ V}, f = 1\text{ MHz}$ | | 12 | | pF |

* Pulse test: $t \leq 300\ \mu\text{s}$, $D = 2\%$.

■ Marking

| | |
|---------|-----|
| Marking | DKs |
|---------|-----|