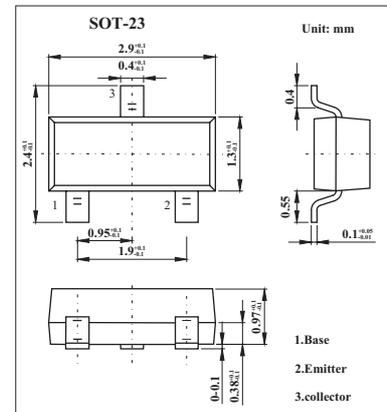


## PNP General Purpose Transistors

## BCX17,BCX18

## ■ Features

- Low current (max. 100 mA).
- Low voltage (max. 32 V).

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

| Parameter                                     | Symbol       | BCX17       | BCX18 | Unit             |
|---|--------------|-------------|-------|------------------|
| Collector-base voltage                        | $V_{CB0}$    | -50         | -30   | V                |
| Collector-emitter voltage                     | $V_{CEO}$    | -45         | -25   | V                |
| Emitter-base voltage                          | $V_{EBO}$    | -5          |       | V                |
| Collector current                             | $I_C$        | -500        |       | mA               |
| Peak collector current                        | $I_{CM}$     | -1000       |       | mA               |
| Peak base current                             | $I_{BM}$     | -200        |       | mA               |
| Total power dissipation *                     | $P_{tot}$    | 250         |       | mW               |
| Storage temperature                           | $T_{stg}$    | -65 to +150 |       | $^\circ\text{C}$ |
| Junction temperature                          | $T_j$        | 150         |       | $^\circ\text{C}$ |
| Operating ambient temperature                 | $R_{amb}$    | -65 to +150 |       | $^\circ\text{C}$ |
| Thermal resistance from junction to ambient * | $R_{th-j-a}$ | 500         |       | K/W              |

\* Transistor mounted on an FR4 printed-circuit board.

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

| Parameter                            | Symbol        | Testconditions  | Min | Typ | Max  | Unit          |
|--------------------------------------|---------------|---|-----|-----|------|---------------|
| Collector cutoff current             | $I_{CBO}$     | $I_E = 0; V_{CB} = -20\text{ V}$                                  |     |     | -100 | nA            |
|                                      | $I_{CBO}$     | $I_E = 0; V_{CB} = -20\text{ V}; T_j = 100\text{ }^\circ\text{C}$ |     |     | -5   | $\mu\text{A}$ |
| Emitter cutoff current               | $I_{EBO}$     | $I_C = 0; V_{EB} = -5\text{ V}$                                   |     |     | -100 | nA            |
| DC current gain                      | $h_{FE}$      | $I_C = -100\text{ mA}; V_{CE} = -1\text{ V}$                      | 100 |     | 600  |               |
|                                      |               | $I_C = -300\text{ mA}; V_{CE} = -1\text{ V}$                      | 70  |     |      |               |
|                                      |               | $I_C = -500\text{ mA}; V_{CE} = -1\text{ V}$                      | 40  |     |      |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -500\text{ mA}; I_B = -50\text{ mA}$                       |     |     | -620 | mV            |
| Base to emitter voltage              | $V_{BE}$      | $I_C = -500\text{ mA}; V_{CE} = -1\text{ V}$                      |     |     | -1.2 | V             |
| Collector capacitance                | $C_C$         | $I_E = I_C = 0; V_{CB} = -10\text{ V}; f = 1\text{ MHz}$          |     | 9   |      | pF            |
| Transition frequency                 | $f_T$         | $I_C = -10\text{ mA}; V_{CE} = -5\text{ V}; f = 100\text{ MHz}$   | 80  |     |      | MHz           |

■  $h_{FE}$  Classification

| TYPE    | BCX17 | BCX18 |
|---------|-------|-------|
| Marking | T1    | T2    |