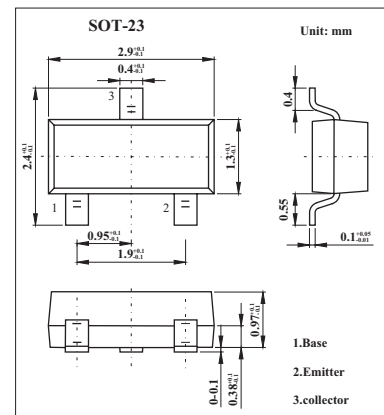


NPN General Purpose Transistors

BCV71,BCV72

■ Features

- Low current (max. 100 mA).
- Low voltage (max. 60 V).

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

| Parameter | Symbol | Rating | Unit |
|---|---------------|-------------|------------------|
| Collector-base voltage | V_{CB0} | 80 | V |
| Collector-emitter voltage | V_{CE0} | 60 | V |
| Emitter-base voltage | V_{EB0} | 5 | V |
| Collector current | I_C | 100 | mA |
| Peak collector current | I_{CM} | 200 | 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.

BCV71,BCV72

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|--------------------------------------|----------------|--|-------------------------|-----|-----|------|
| Collector cutoff current | ICBO | IE = 0; VCB = 20 V | | | 100 | nA |
| | ICBO | IE = 0; VCB = 20 V; Tj = 100 °C | | | 10 | μA |
| Emitter cutoff current | IEBO | IC = 0; VEB = 5 V | | | 100 | nA |
| DC current gain | BCV71 BCV72 | hFE | IC = 10 μA; VCE = 5 V | | 90 | |
| | | | | | 150 | |
| DC current gain | BCV71 BCV72 | hFE | IC = 2 mA; VCE = 5 V | 110 | | 220 |
| | | | | 200 | | 450 |
| Collector-emitter saturation voltage | VCE(sat) | IC = 10 mA; IB = 0.5 mA | | 120 | 250 | mV |
| | | | IC = 50 mA; IB = 2.5 mA | | 210 | |
| Base to emitter saturation voltage | VBE(sat) | IC = 10 mA; IB = 0.5 mA | | 750 | | mV |
| | | | IC = 50 mA; IB = 2.5 mA | | 850 | |
| Base to emitter voltage | VBE | IC = 2 mA; VCE = 5 V | 550 | | 700 | mV |
| Collector capacitance | Cc | IE = IE = 0; VCB = 10 V; f = 1 MHz | | 2.5 | | pF |
| Transition frequency | fr | IC = 10 mA; VCE = 5 V; f = 100 MHz | 100 | | | MHz |
| Noise figure | NF | IC = 200 μA; VCE = 5 V; Rs = 2 kΩ; f = 1 kHz; B = 200 Hz | | | 10 | dB |

■ hFE Classification

| TYPE | BCV71 | BCV72 |
|---------|-------|-------|
| Marking | K7 | K8 |