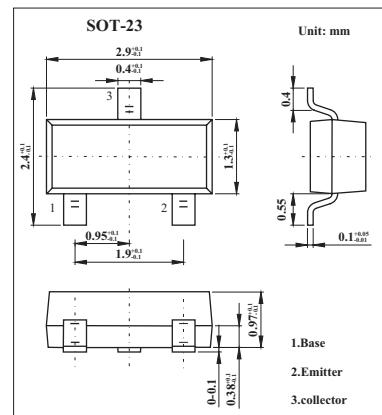


General Purpose Transistor

BCW61A/B/C/D

■ Features

- PNP Epitaxial Silicon Transistor

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

| Parameter | Symbol | Rating | Unit |
|-----------------------------|-----------|-------------|------------------|
| Collector-Base Voltage | V_{CB0} | -32 | V |
| Collector-Emitter Voltage | V_{CE0} | -32 | V |
| Emitter-Base Voltage | V_{EB0} | -5 | V |
| Collector Current | I_C | -100 | mA |
| Collector Power Dissipation | P_C | 350 | mW |
| Storage Temperature | T_{STG} | -55 to +150 | $^\circ\text{C}$ |

BCW61A/B/C/D

■ Electrical Characteristics Ta = 25°C

| Parameter | | Symbol | Testconditions | Min | Typ | Max | Unit |
|--------------------------------------|--------|----------|--|-------|------|-------|------|
| Collector cutoff current | | ICBO | IE = 0; VCB = -32 V | | | -20 | nA |
| | | ICBO | IE = 0; VCB = -32 V; Tamb = 150 °C | | | -20 | μA |
| Emitter cutoff current | | IEBO | IC = 0; VEB = -4 V | | | -20 | nA |
| DC current gain | BCW61B | hFE | IC = -10μA; VCE = -5 V | 30 | | | |
| | BCW61C | | | 40 | | | |
| | BCW61D | | | 100 | | | |
| DC current gain | BCW61B | hFE | IC = -2 mA; VCE = -5 V | 180 | | 310 | |
| | BCW61C | | | 250 | | 460 | |
| | BCW61D | | | 380 | | 630 | |
| DC current gain | BCW61B | hFE | IC = -50 mA; VCE = -5 V | 80 | | | |
| | BCW61C | | | 100 | | | |
| | BCW61D | | | 110 | | | |
| Collector-emitter saturation voltage | | VCE(sat) | IC = -10 mA; IB = -0.25 mA | -60 | | -250 | mV |
| | | | IC = -50 mA; IB = -1.25 mA | -120 | | -550 | mV |
| Base to emitter saturation voltage | | VBE(sat) | IC = -10 mA; IB = -0.25 mA | -600 | | -850 | mV |
| | | | IC = -50 mA; IB = -1.25 mA | -0.68 | | -1.05 | V |
| Base to emitter voltage | | VBE | IC = -2 mA; VCE = -5 V | -600 | -650 | -750 | mV |
| Collector capacitance | | Cc | IE = ie = 0; VCB = -10 V; f = 1 MHz | | 4.5 | | pF |
| Emitter capacitance | | Ce | IC = ic = 0; VEB = -0.5 V; f = 1 MHz | | 11 | | 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 | | 2 | 6 | dB |

* Pulse test: tp ≤ 300 μs; d ≤ 0.02.

■ Marking

| TYPE | BCW61A | BCW61B | BCW61C | BCW61D |
|---------|--------|--------|--------|--------|
| Marking | BA | BB | BC | BD |