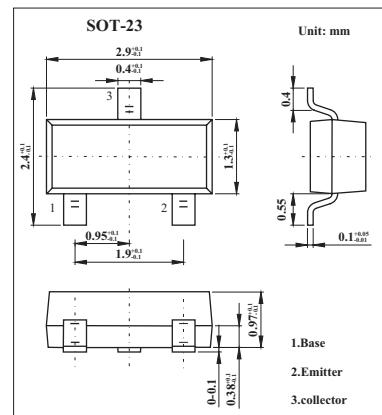


## General Purpose Transistor

## 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 *               |        | fT       | 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     |