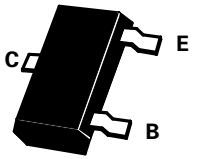
# SOT23 PNP SILICON PLANAR SMALL SIGNAL TRANSISTORS

**ISSUE 3 - JULY 1995**

# BCW29
# BCW30

PARTMARKING DETAILS – BCW29 - C1
BCW30 - C2
BCW29R - C4
BCW30R - C5

COMPLEMENTARY TYPES – BCW29 - BCW31
BCW30 - BCW32




**SOT23**

## ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|---|---|---|
| Collector-Base Voltage | $V_{CBO}$ | -30 | V |
| Collector-Emitter Voltage | $V_{CEO}$ | -30 | V |
| Emitter-Base Voltage | $V_{EBO}$ | -20 | V |
| Peak Pulse Current | $I_{CM}$ | -5 | A |
| Continuous Collector Current | $I_C$ | -100 | A |
| Power Dissipation at $T_{amb}$=25°C | $P_{tot}$ | 330 | mW |
| Operating and Storage Temperature Range | $T_j$:$T_{stg}$ | -55 to +150 | °C |

## ELECTRICAL CHARACTERISTICS (at $T_{amb}$ = 25°C unless otherwise stated).

| PARAMETER | | SYMBOL | MIN. | TYP. | MAX. | UNIT | CONDITIONS. |
|---|---|---|---|---|---|---|---|
| Base - Emitter Voltage | | $V_{BE}$ | -600 | | -750 | mV | $I_C$=-2mA, $V_{CE}$ =- 5V |
| Collector-Emitter Saturation Voltage | | $V_{CE(SAT)}$ | | -80<br>-150 | 250 | mV<br>mV | $I_C$=-10mA, $I_B$ = - 0.5mA<br>$I_C$=-50mA, $I_B$ =-2.5mA |
| Base-Emitter Saturation Voltage | | $V_{BE(SAT)}$ | | -720<br>-810 | | mV<br>mV | $I_C$=-10mA, $I_B$=-0.5mA<br>$I_C$ =-50mA, $I_B$=-2.5mA |
| Collector- Base Cut-Off Current | | $I_{CBO}$ | | | -100<br>-10 | nA<br>µA | $I_E$=0, $V_{CB}$=-20V<br>$I_E$=0,VCB=-20V,<br>$T_j$ =100°C |
| Static Forward Current Transfer Ratio | BCW29 | $h_{FE}$ | 120 | 90 | 260 | | $I_C$=-10µA, $V_{CE}$=-5V<br>$I_C$=-2mA, $V_{CE}$=-5V |
| | BCW30 | $h_{FE}$ | 215 | 150 | 500 | | IC=-10µA, $V_{CE}$=-5V<br>$I_C$=-2mA, $V_{CE}$=-5V |
| Transition Frequency | | $f_T$ | | 150 | | MHz | $I_C$=-10mA, $V_{CE}$=-5V<br>f = 35MHz |
| Collector Capacitance | | $C_{TC}$ | | | 7 | pF | $I_E$ =$I_e$ =0, $V_{CB}$ =-10V<br>f= 1MHz |
| Noise Figure | | N | | | 10 | dB | $I_C$= -200mA, $V_{CE}$ =-5V<br>$R_S$ =2KΩ, f=1KHz<br>B= 200Hz |

*Measured under pulsed conditions. Pulse width=300µs. Duty cycle ≤2%
Spice parameter data is available upon request for this device

This datasheet has been download from:

www.datasheetcatalog.com

Datasheets for electronics components.