

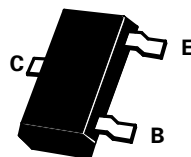
# SOT23 PNP SILICON PLANAR SMALL SIGNAL TRANSISTORS

## BCW29 BCW30

ISSUE 3 - JULY 1995

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 $T_{amb}=25^{\circ}C$	$P_{tot}$	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ 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 -150	250	mV mV	$I_C = -10mA, I_B = -0.5mA$ $I_C = -50mA, I_B = -2.5mA$
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$		-720 -810		mV mV	$I_C = -10mA, I_B = -0.5mA$ $I_C = -50mA, I_B = -2.5mA$
Collector- Base Cut-Off Current	$I_{CBO}$			-100 -10	nA $\mu A$	$I_E = 0, V_{CB} = -20V$ $I_E = 0, V_{CB} = -20V,$ $T_j = 100^{\circ}C$
Static Forward Current Transfer Ratio	BCW29	$h_{FE}$	120	90	260	$I_C = -10\mu A, V_{CE} = -5V$ $I_C = -2mA, V_{CE} = -5V$
	BCW30	$h_{FE}$	215	150	500	$I_C = -10\mu A, V_{CE} = -5V$ $I_C = -2mA, V_{CE} = -5V$
Transition Frequency	$f_T$		150		MHz	$I_C = -10mA, V_{CE} = -5V$ $f = 35MHz$
Collector Capacitance	$C_{TC}$			7	pF	$I_E = I_B = 0, V_{CB} = -10V$ $f = 1MHz$
Noise Figure	N			10	dB	$I_C = -200mA, V_{CE} = -5V$ $R_S = 2K\Omega, f = 1KHz$ $B = 200Hz$

\*Measured under pulsed conditions. Pulse width=300 $\mu s$ . Duty cycle  $\leq 2\%$   
Spice parameter data is available upon request for this device