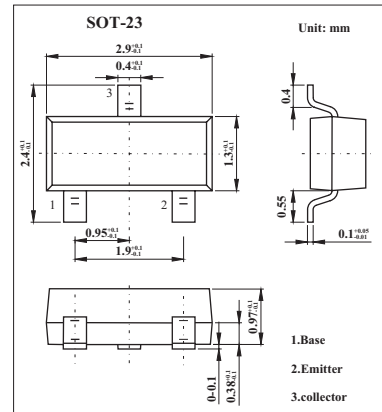# PNP General Purpose Transistors

BCW29,BCW30

■ Features

● Low current (max. 100 mA).

● Low voltage (max. 32 V).

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-32	V
Collector-emitter voltage	V_{CEO}	-32	V
Emitter-base voltage	V_{EBO}	-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	℃
Junction temperature	T_j	150	℃
Operating ambient temperature	R_{amb}	-65 to +150	℃
Thermal resistance from junction to ambient *	$R_{th\ j-a}$	500	K/W

* Transistor mounted on an FR4 printed-circuit board.

BCW29,BCW30

■ Electrical Characteristics Ta = 25℃

Parameter		Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current		ICBO	IE = 0; VCB = -32 V			-100	nA
		ICBO	IE = 0; VCB = -32 V; Tj = 100 ℃			-10	µA
Emitter cutoff current		IEBO	IC = 0; VEB = -5 V			-100	nA
DC current gain	BCW29	hFE	IC = -2 mA; VCE = -5 V	120		260	
	BCW30			215		500	
Collector-emitter saturation voltage		VCE(sat)	IC = -10 mA; IB = -0.5 mA		-80		mV
			IC = -50 mA; IB = -2.5 mA		-150		mV
Base to emitter saturation voltage		VBE(sat)	IC = -10 mA; IB = -0.5 mA		-720		mV
			IC = -50 mA; IB = -2.5 mA		-810		mV
Base to emitter voltage		VBE	IC = -2 mA; VCE = -5 V	-600		-750	mV
Collector capacitance		Cc	IE = ie = 0; VCB = -10 V; f = 1 MHz		4.5		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			10	dB

■ hFE Classification

TYPE	BCW29	BCW30
Marking	C1	C2