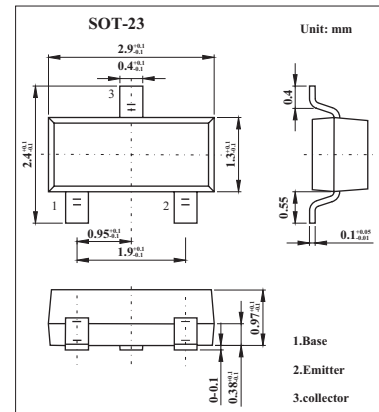


PNP General Purpose Transistors

BCF29,BCF30

■ Features

- Low current (max. 100 mA).
- Low voltage (max. 32 V).

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

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
Peak collector current	I_{CM}	-200	mA
Peak base current	I_{BM}	-100	mA
Total power dissipation *	P_{tot}	250	mW
Storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$
Junction temperature	T_j	150	$^\circ\text{C}$
Operating ambient temperature	R_{amb}	-65 to +150	$^\circ\text{C}$
Thermal resistance from junction to ambient *	$R_{th\ j-a}$	500	K/W

* Transistor mounted on an FR4 printed-circuit board.

BCF29,BCF30

■ Electrical Characteristics Ta = 25°C

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 °C			-10	μA
Emitter cutoff current	IEBO	IC = 0; VEB = -5 V			-100	nA
DC current gain	BCF29 BCF30	hFE	IC = -10 μA; VCE = -5 V		90	
					150	
DC current gain	BCF29 BCF30	hFE	IC = -2 mA; VCE = -5 V	120		260
				215		500
Collector-emitter saturation voltage	VCE(sat)	IC = -10 mA; IB = -0.5 mA		-80	-300	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		1	4	dB

■ hFE Classification

TYPE	BCF29	BCF30
Marking	C7p	C8p