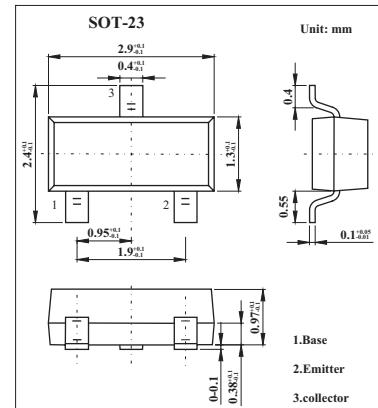


PNP General Purpose Transistor

BC856, BC857, BC858

■ Features

- Low current (max. 100 mA).
- Low voltage (max. 65 V).



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	BC856	BC857	BC858	Unit
Collector-base voltage	V _{CBO}	-80	-50	-30	V
Collector-emitter voltage	V _{C EO}	-65	-45	-30	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
Junction temperature	T _j		150		°C
Storage temperature	T _{stg}		-65 to +150		°C
Operating ambient temperature	T _{amb}		-65 to +150		°C
Thermal resistance from junction to ambient *	R _{th j-a}		500		K/W

* Transistor mounted on an FR4 printed-circuit board, standard footprint.

BC856,BC857,BC858

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I _{CBO}	V _{CB} = -30 V, I _E = 0		-1	-15	nA
	I _{CBO}	V _{CB} = -30 V, I _E = 0 , T _j = 150°C		-4	-4	μA
Emitter cutoff current	I _{EBO}	V _{EB} = -5 V, I _C = 0		-100	-100	nA
DC current gain	h _{FE}	I _C = -2 mA; V _{CE} = -5 V	125	475		
			125	800		
			125	250		
			220	475		
			420	800		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -10 mA; I _B = -0.5 mA		-75	-300	mV
		I _C = -100 mA; I _B = -5 mA; *		-250	-650	mV
Base-emitter saturation voltage	V _{BE(sat)}	I _C = -10 mA; I _B = -0.5 mA		-700		mV
		I _C = -100 mA; I _B = -5 mA; *		-850		mV
Base-emitter voltage	V _{BE}	I _C = -2 mA; V _{CE} = -5 V	-600	-650	-750	mV
		I _C = -10 mA; V _{CE} = -5 V			-820	mV
Collector capacitance	C _c	V _{CB} = -10 V; I _E = I _E = 0; f = 1 MHz		4.5		pF
Transition frequency	f _T	V _{CE} = -5 V; I _C = -10 mA; f = 100 MHz	100			MHz
Noise figure	NF	I _C = -200 mA; V _{CE} = -5 V; R _s = 2 kΩ; f = 1 kHz; B = 200 Hz		2	10	dB

* Pulse test: t_p ≤ 300μs, δ ≤ 0.02.

■ hFE Classification

TYPE	BC856	BC856A	BC856B
Marking	3D	3A	3B

TYPE	BC857	BC857A	BC857B	BC857C
Marking	3H	3E	3F	3G

TYPE	BC858B
Marking	3K