

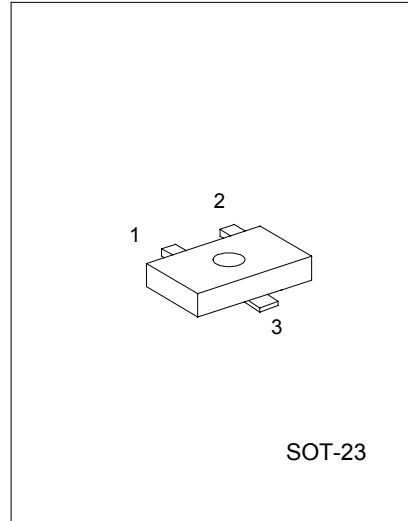
BC856/BC857

PNP EPITAXIAL SILICON TRANSISTOR

SWITCHING AND AMPLIFIER APPLICATIONS

FEATURES

- *Suitable for automatic insertion in thick and thin-film circuits
- *Complement to BC846 / BC847



1: EMITTER 2: BASE 3: COLLECTOR

ABSOLUTE MAXIMUM RATINGS (Ta=25°C, unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	VCBO	-80	V
BC856		-50	V
BC857			
Collector-Emitter Voltage	VCEO	-65	V
BC856		-45	V
BC857			
Emitter-Base Voltage	VEBO	-5	V
Collector Dissipation	Pc	310	mW
Collector Current (DC)	Ic	-100	mA
Junction Temperature	Tj	150	°C
Storage Temperature	TSTG	-65 ~ 150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	ICBO	VCB=-30V, IE=0			-15	nA
DC Current Gain	hFE	VCE=-5V, IC=-2mA	110		800	
Collector-Emitter Saturation Voltage	VCE(sat)	IC=-10mA, IB=-0.5mA		-90	-300	mV
		IC=-100mA, IB=-5mA		-250	-650	mV
Base-Emitter Saturation Voltage	VBE (sat)	IC=-10mA, IB=-0.5mA		-700		mV
		IC=-100mA, IB=-5mA		-900		mV
Base-Emitter On Voltage	VBE (on)	VCE=-5V, IC=-2mA	-600	-660	-750	mV
		VCE=-5V, IC=-10mA			-800	mV
Current Gain Bandwidth Product	fT	VCE=-5V, IC=-10mA f=100MHz		150		MHz

UTC UNISONIC TECHNOLOGIES CO. LTD

BC856/BC857 PNP EPITAXIAL SILICON TRANSISTOR

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Output Capacitance	Cob	V _{CB} =-10V, I _E =0, f=1MHz			6	pF
Noise Figure	NF	V _{CE} =-5V, I _C =-200μA f=1KHz, R _G =2KΩ		2	10	dB

Classification of h_{FE}

RANK	A	B	C
RANGE	110-220	200-450	420-800

Marking Code

TYPE	856A	856B	856C	857A	857B	857C
MARK	9AA	9AB	9AC	9BA	9BB	9BC

TYPICAL CHARACTERISTICS

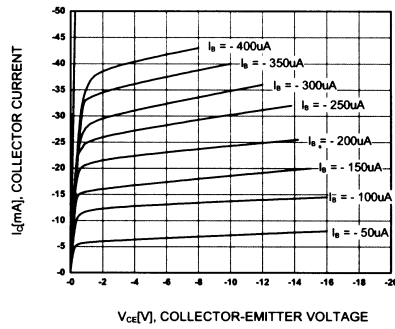


Figure 1. Static Characteristic

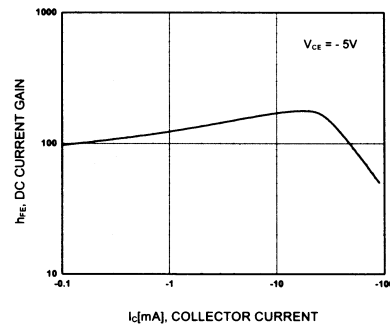


Figure 2. DC current Gain

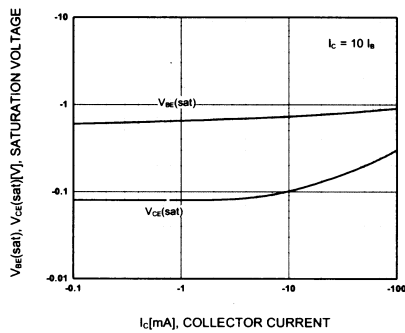
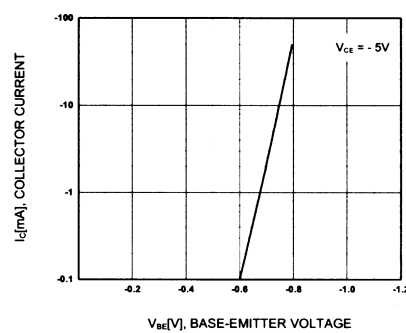
Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

Figure 4. Base-Emitter On Voltage

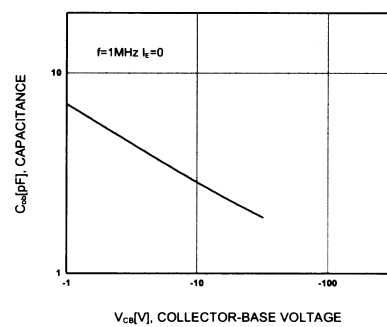


Figure 5. Collector Output Capacitance

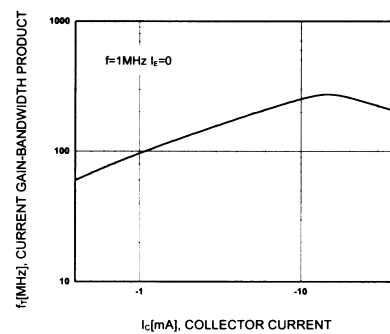


Figure 6. Current Gain Bandwidth Product