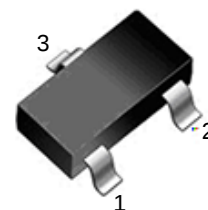


SOT-23 Plastic-Encapsulate Transistors

BC857 TRANSISTOR (PNP)



1. BASE
2. EMITTER
3. COLLECTOR

SOT-23

• Features

- Ideally suited for automatic insertion
- For switching and AF amplifier applications

• MAXIMUM RATINGS (T_C=25°C)

Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V _{CBO}	-50	V
Collector-Emitter Voltage	V _{CEO}	-45	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current	I _C	-0.1	A
Collector Power Dissipation	P _C	200	mW
Thermal Resistance From Junction To Ambient	R _{θJA}	625	°C/W
Operation Junction and Storage Temperature Range	T _J , T _{stg}	-55~+150	°C

• ELECTRICAL CHARACTERISTICS (T_a=25°C)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V _{CBO}	I _C = -10μA, I _E =0	-50		V
Collector-emitter breakdown voltage	V _{CEO}	I _C = -10mA, I _B =0	-45		V
Emitter-base breakdown voltage	V _{EBO}	I _E = -1μA, I _C =0	-5		V
Collector cut-off current	I _{CBO}	V _{CB} = -45 V, I _E =0		-0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} = -5 V, I _C =0		-0.1	μA
DC current gain	h _{FE}	V _{CE} = -5V, I _C = -2mA	125 220 420	250 475 800	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-100mA, I _B = -5 mA		-0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = -100mA, I _B = -5mA		-1.1	V
Transition frequency	f _T	V _{CE} = -5 V, I _C = -10mA f=100MHz	100		MHz
Collector capacitance	C _{ob}	V _{CB} =-10V, f=1MHz		4.5	pF

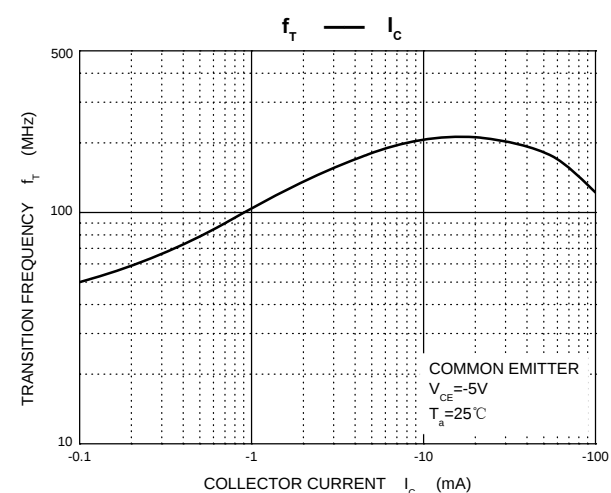
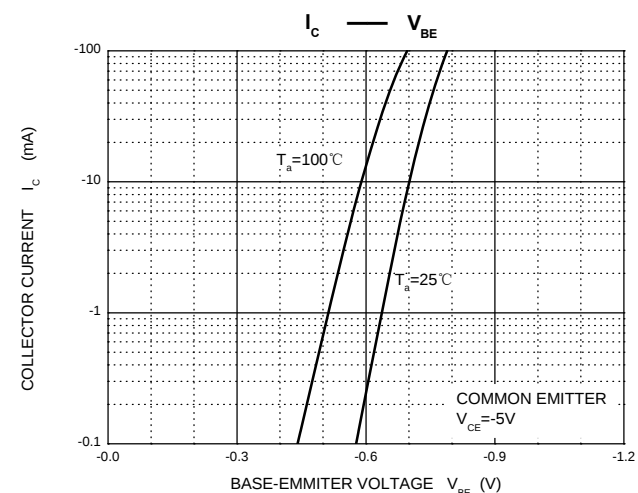
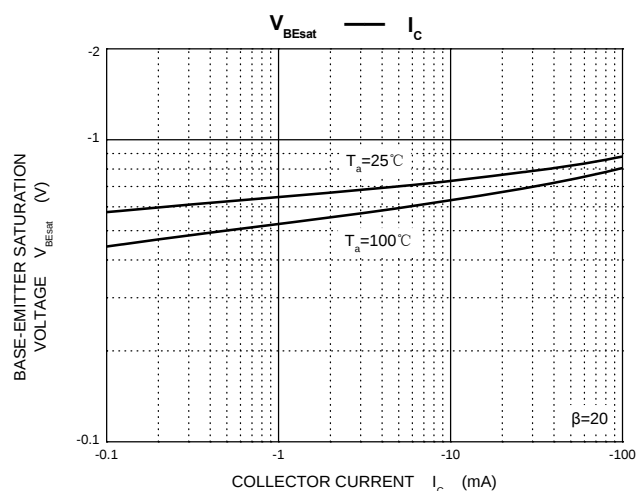
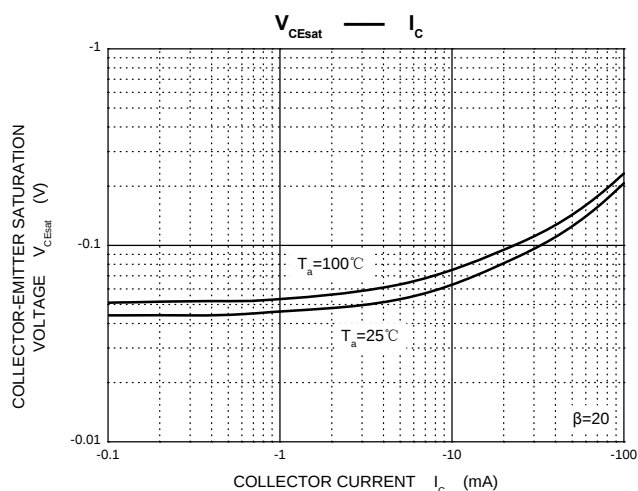
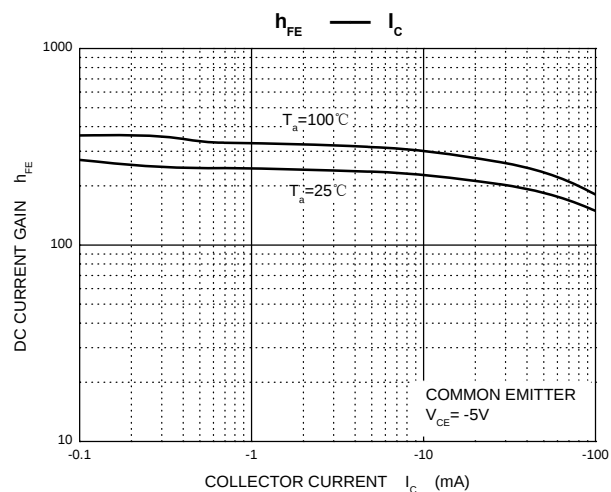
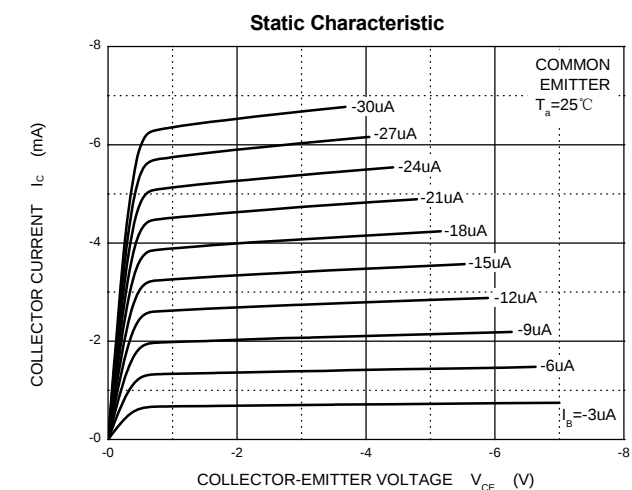
• CLASSIFICATION OF h_{FE}(1)

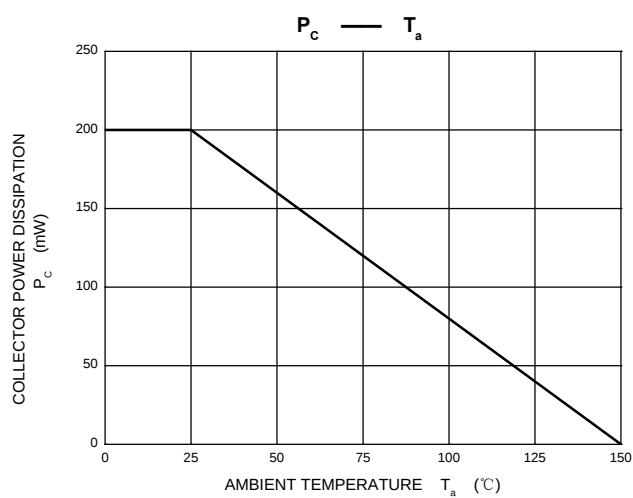
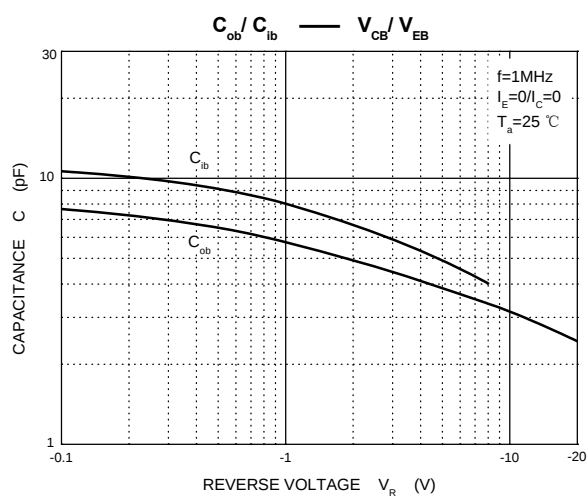
Rank	A	B	C
Range	125-250	220-475	420-800

Ordering Information:

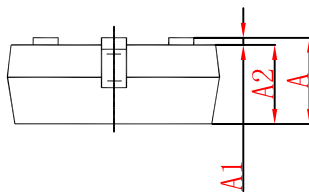
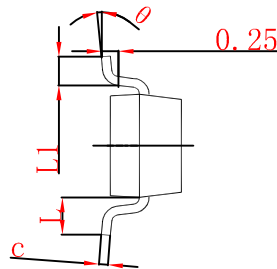
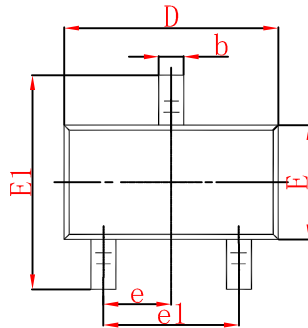
Part NO.	BC857
Marking	3E/3F/3G
Packing Information	REEL TAPE
Basic ordering unit (pcs)	3000

Typical Characteristics

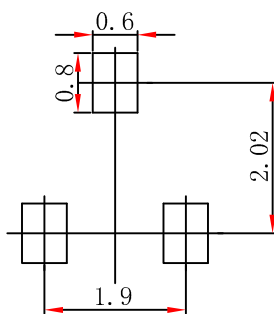




SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.