



THE DATASHEET OF BC857B

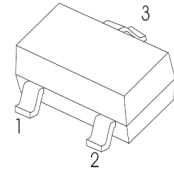


TRANSISTOR PNP

FEATURES

- Ideally suited for automatic insertion
- For Switching and AF Amplifier Applications

SOT-23



- 1. BASE
- 2. EMITTER
- 3. COLLECTOR

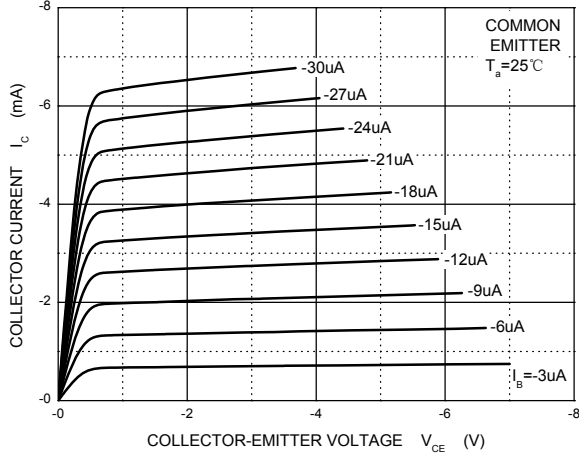
MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage		
	BC856	-80	V
	BC857	-50	
	BC858	-30	
V_{CEO}	Collector-Emitter Voltage		
	BC856	-65	V
	BC857	-45	
	BC858	-30	
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current –Continuous	-0.1	A
P_C	Collector Power Dissipation	200	mW
R_{θJA}	Thermal Resistance From Junction To Ambient	625	°C/W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-65~+150	°C

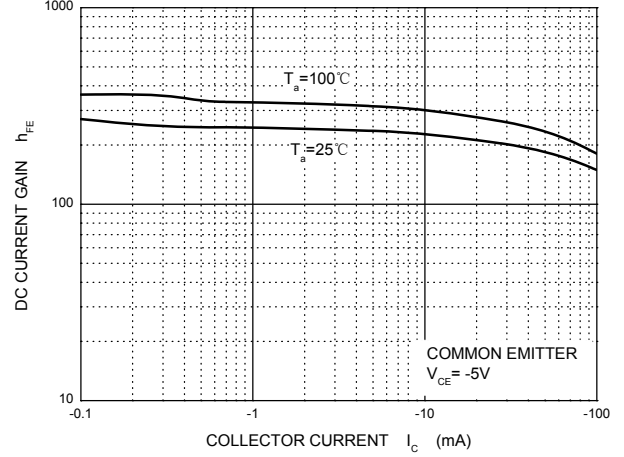
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	BC856	I _C = -10μA, I _E =0	-80		V
	BC857		-50		
	BC858		-30		
Collector-emitter breakdown voltage	BC856	I _C = -10mA, I _B =0	-65		V
	BC857		-45		
	BC858		-30		
Emitter-base breakdown voltage	V _{EBO}	I _E = -1μA, I _C =0	-5		V
Collector cut-off current	BC856	V _{CB} = -70 V, I _E =0			μA
	BC857	V _{CB} = -45 V, I _E =0		-0.1	
	BC858	V _{CB} = -25 V, I _E =0			
Emitter cut-off current	I _{EBO}	V _{EB} = -5 V, I _C =0		-0.1	μA
DC current gain	BC856A, 857A,858A	V _{CE} = -5V, I _C = -2mA	125	250	
	BC856B, 857B,858B		220	475	
	BC857C,BC858C		420	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

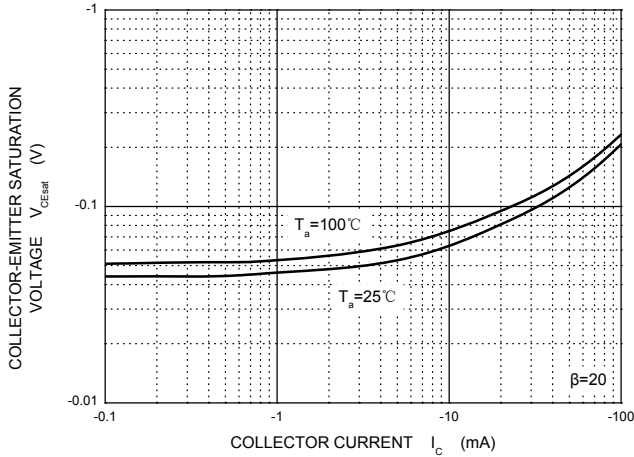
Static Characteristic



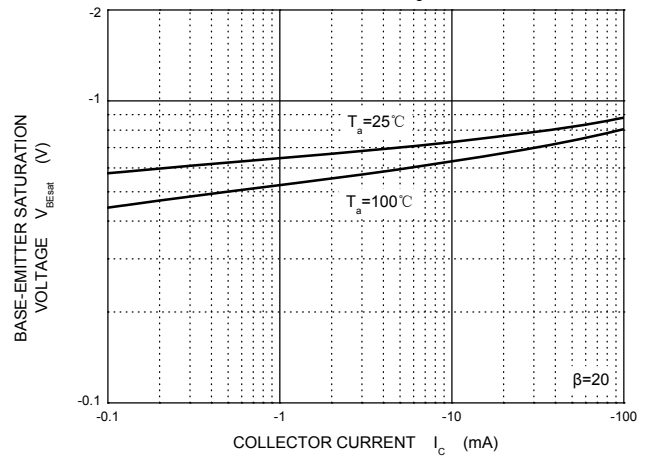
h_{FE} — I_c



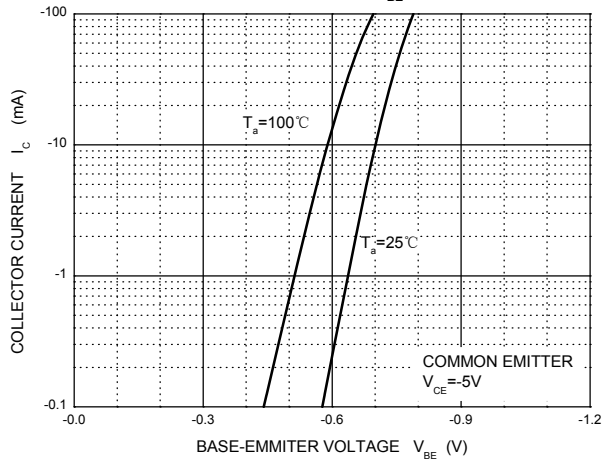
V_{CEsat} — I_c



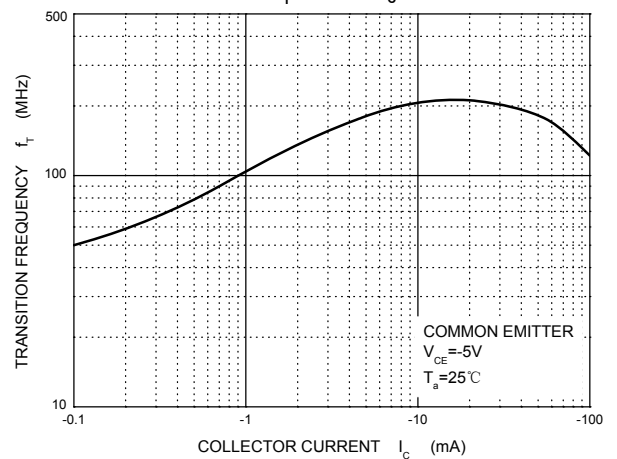
V_{BEsat} — I_c



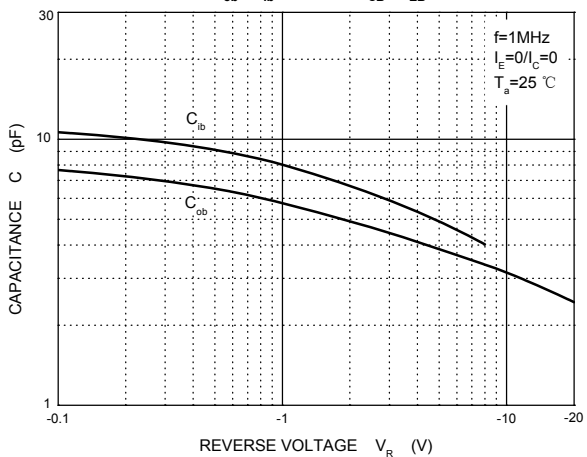
I_c — V_{BE}



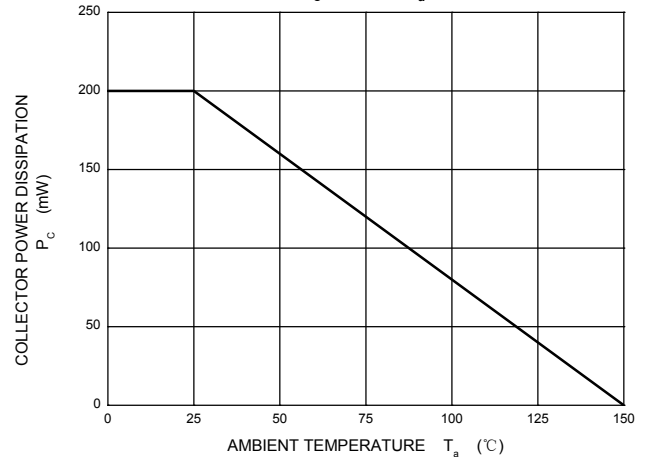
f_T — I_c

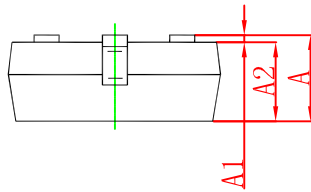
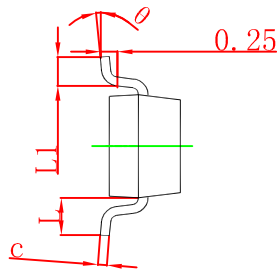
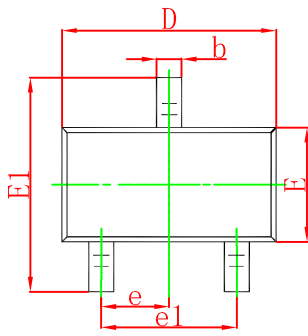


C_{ob}/C_{ib} — V_{CB}/V_{EB}



P_c — T_a





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°

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