

SOT-23 Plastic-Encapsulate Transistors

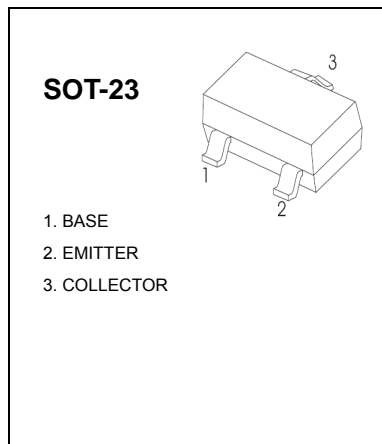
BC856A, B TRANSISTOR (PNP)

BC857A, B,C

BC858A, B,C

FEATURES

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



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
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-65-150	°C

DEVICE MARKING

BC856A=3A; BC856B=3B;
BC857A=3E; BC857B=3F; BC857C=3G;
BC858A=3J; BC858B=3K; BC858C=3L

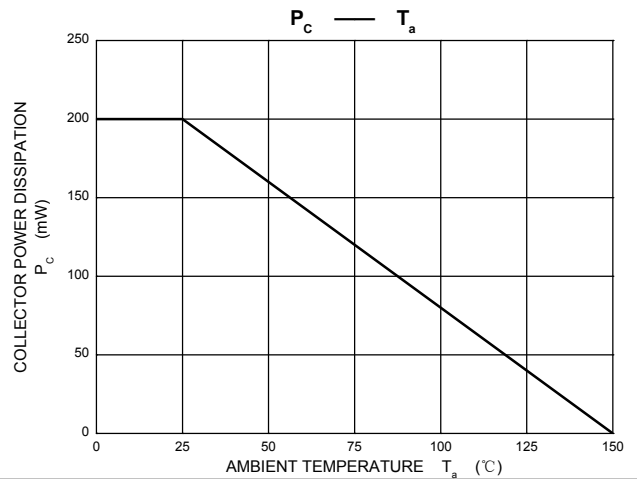
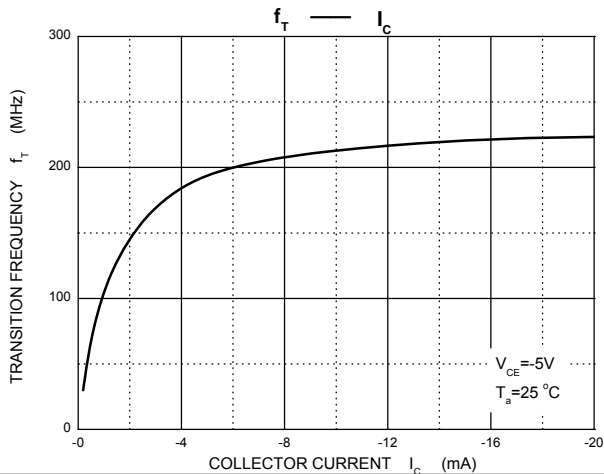
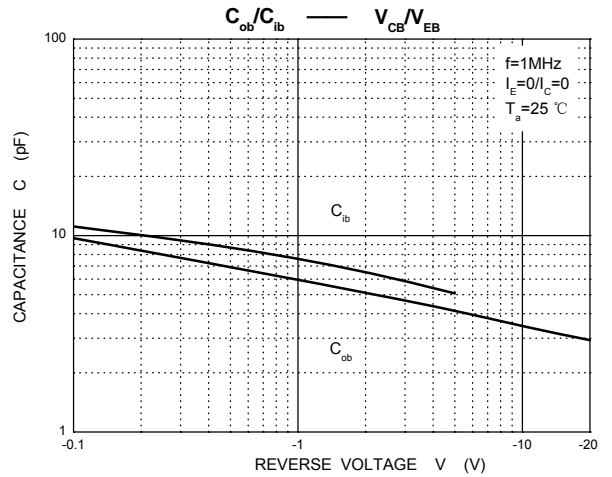
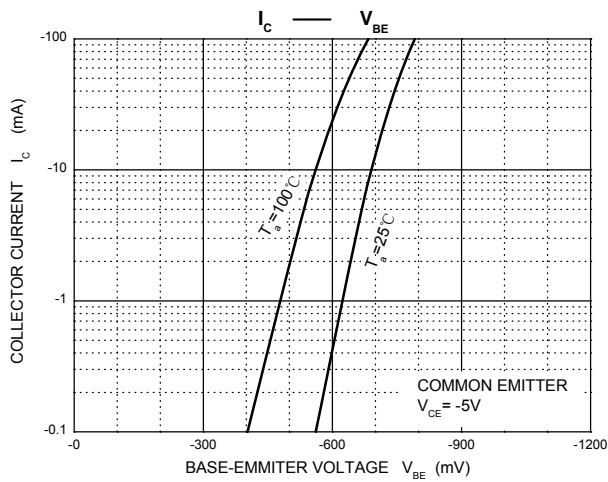
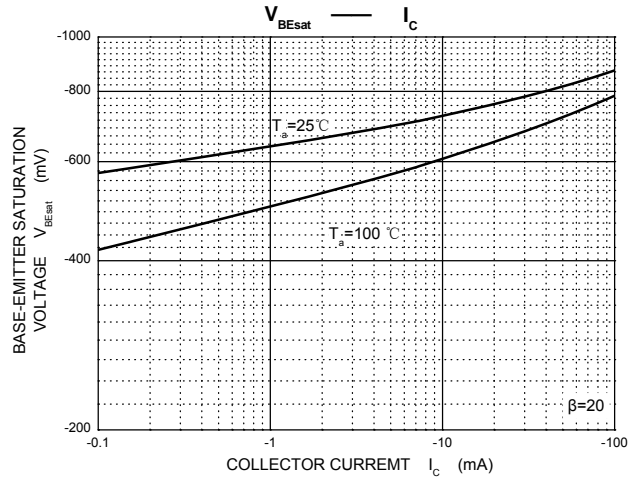
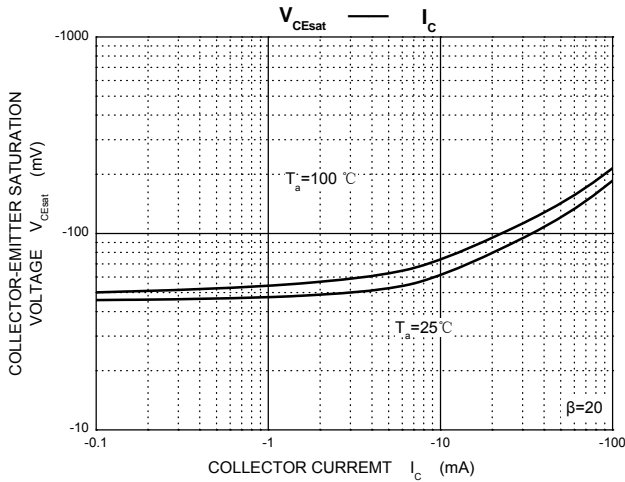
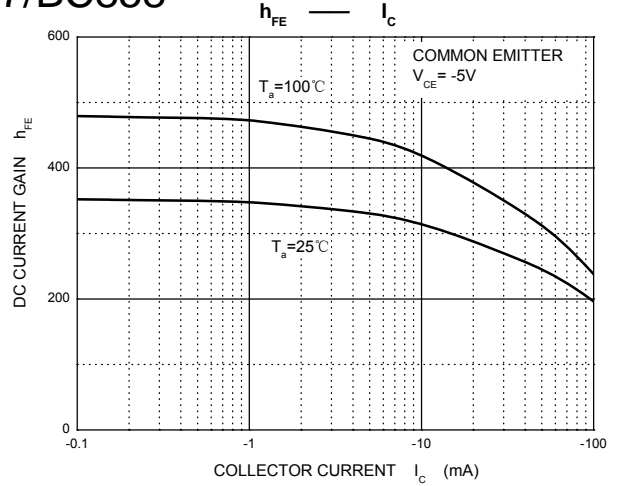
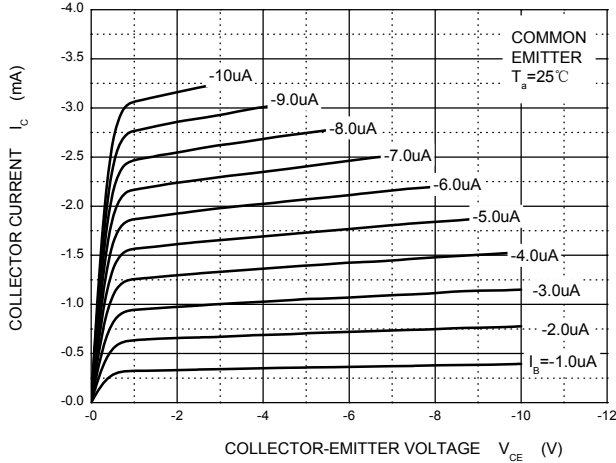
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ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	BC856 BC857 BC858	V _{CBO} I _C = -10μA, I _E =0	-80 -50 -30		V
Collector-emitter breakdown voltage	BC856 BC857 BC858	V _{CEO} I _C = -10mA, I _B =0	-65 -45 -30		V
Emitter-base breakdown voltage		V _{EBO} I _E = -1μA, I _C =0	-5		V
Collector cut-off current	BC856 BC857 BC858	I _{CBO} V _{CB} = -70 V, I _E =0 V _{CB} = -45 V, I _E =0 V _{CB} = -25 V, I _E =0		-0.1	μA
Collector cut-off current	BC856 BC857 BC858	I _{CEO} V _{CE} = -60 V, I _B =0 V _{CE} = -40 V, I _B =0 V _{CE} = -25 V, I _B =0		-0.1	μA
Emitter cut-off current		I _{EBO} V _{EB} = -5 V, I _C =0		-0.1	μA
DC current gain	BC856A, 857A,858A BC856B, 857B,858B BC857C,BC858C	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

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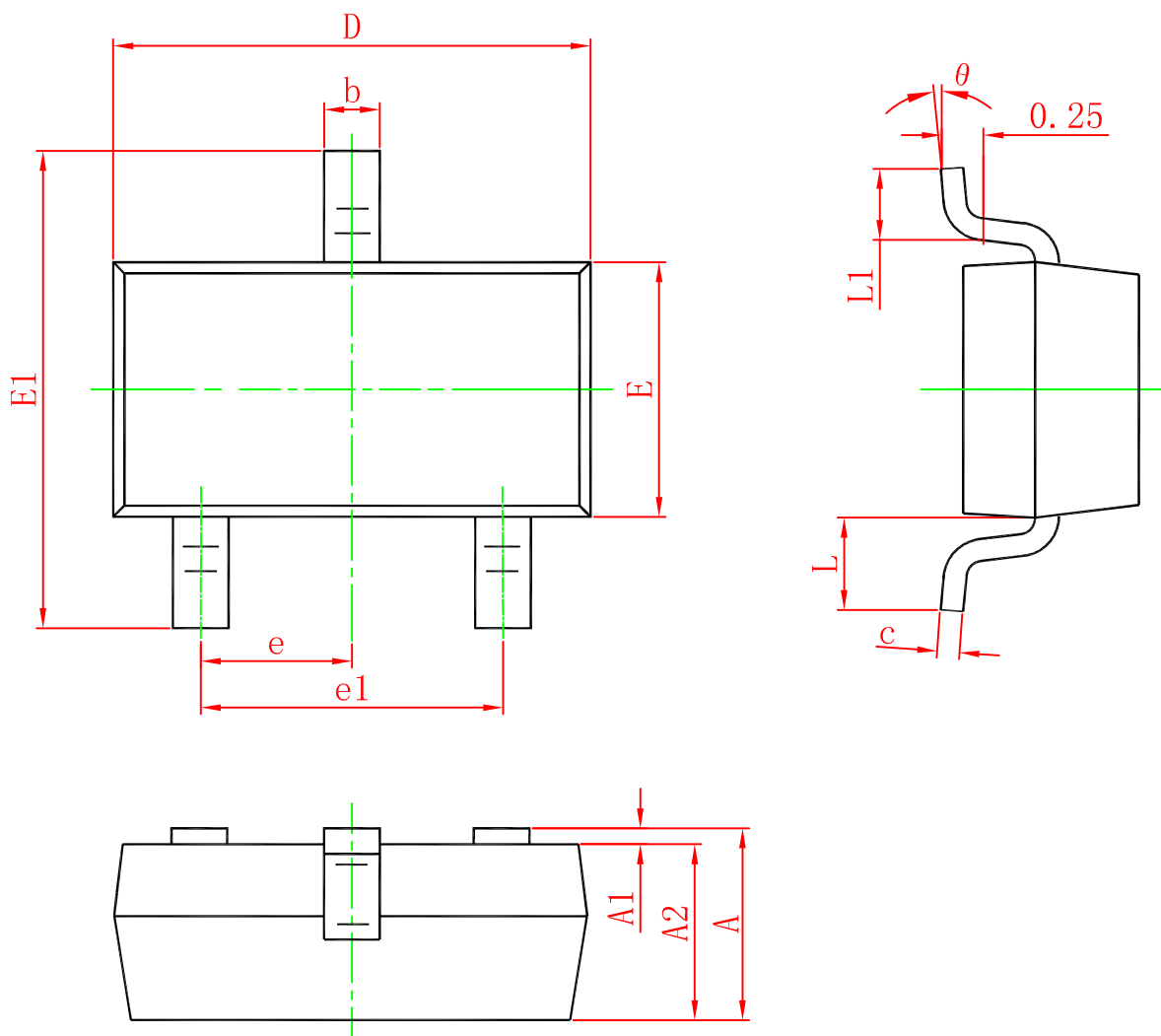
Typical Characteristics BC856/BC857/BC858

Static Characteristic



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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°