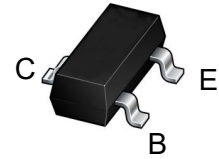


FEATURES

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

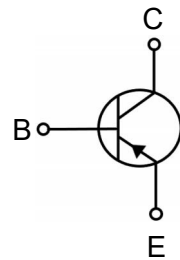


SOT-23

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BC856/BC857 /BC858	SOT-23	3★	3000

★: BC856A= **A**; BC856B= **B**; BC856C= **C**;
BC857A= **E**; BC857B= **F**; BC857C= **G**;
BC858A= **J**; BC858B= **K**; BC858C= **L**;



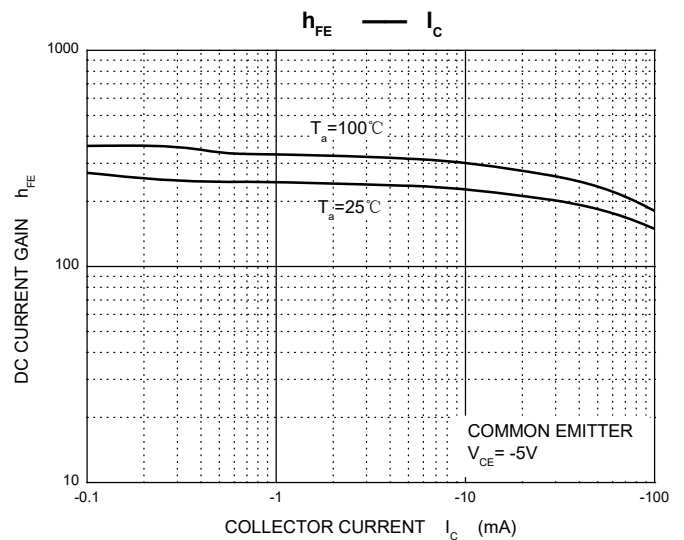
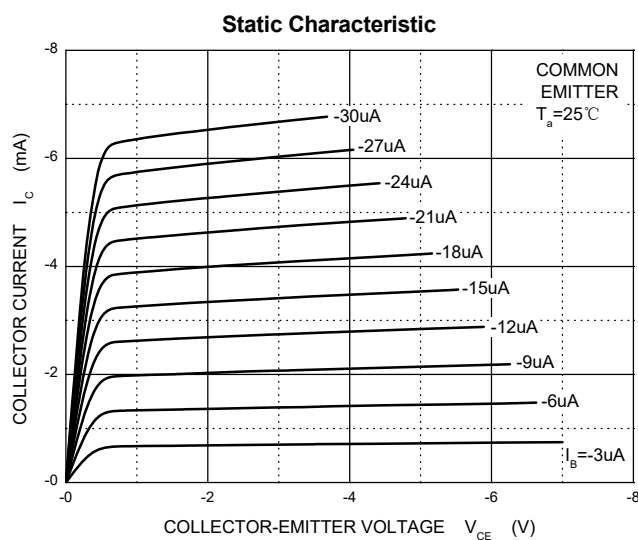
MAXIMUM RATINGS (Ta=25 unless otherwise noted)

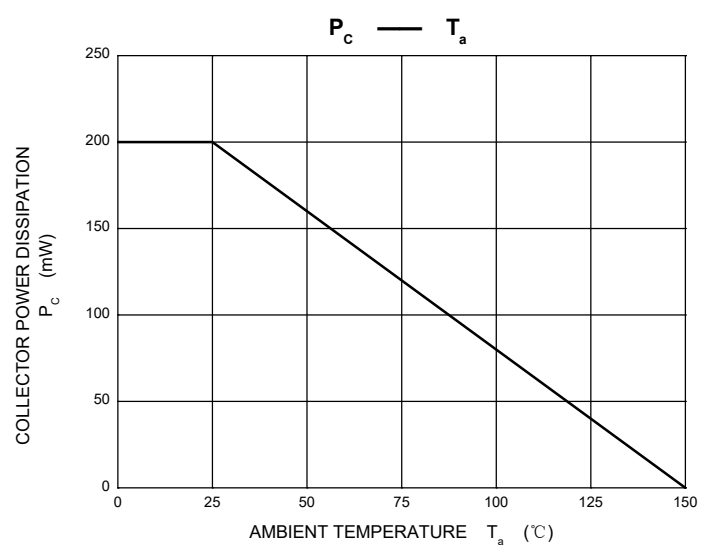
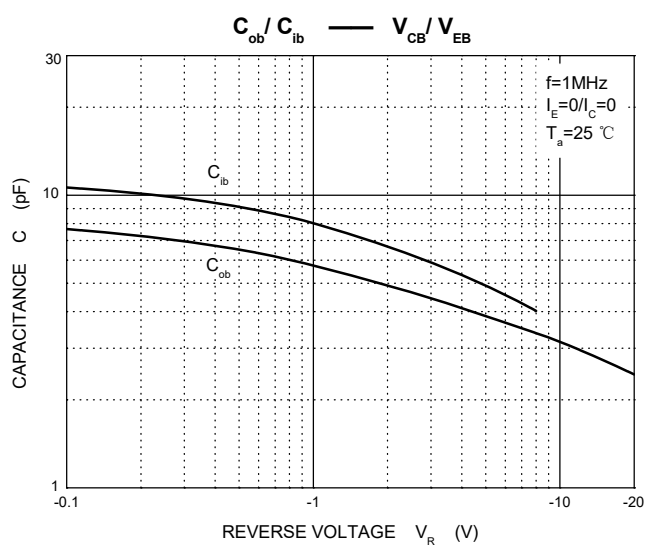
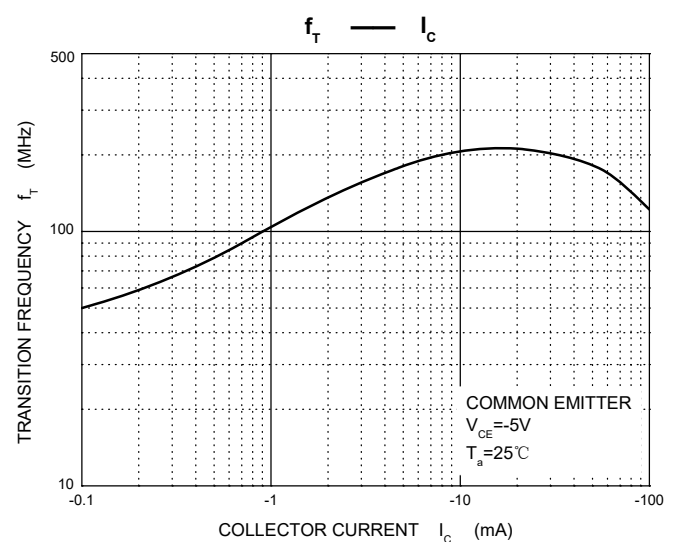
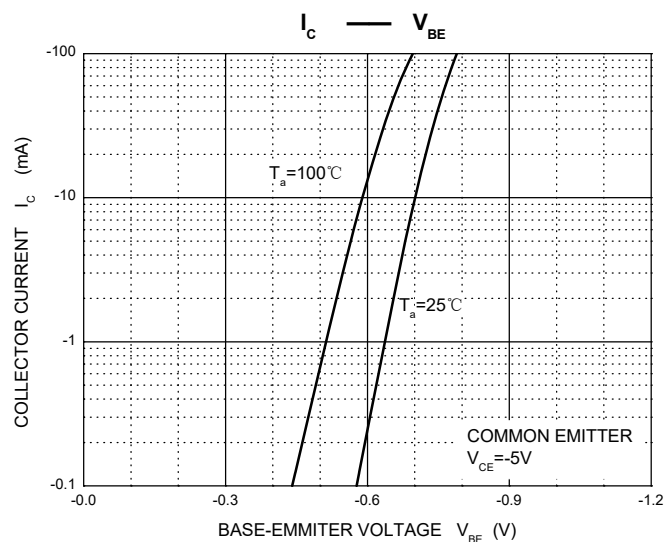
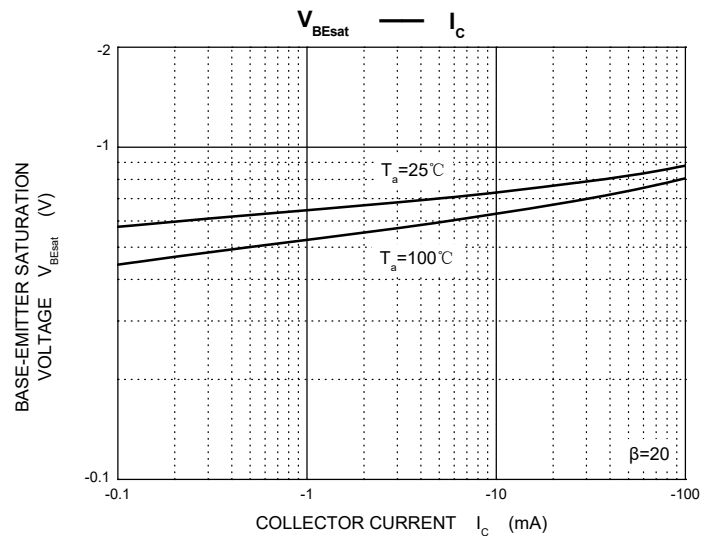
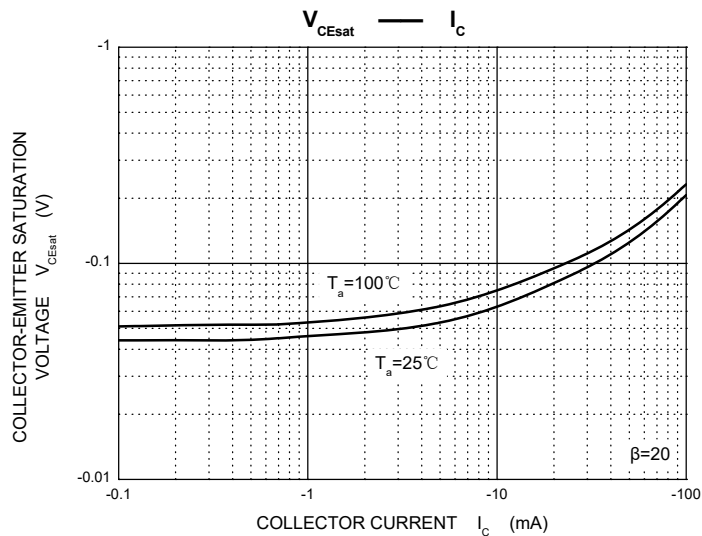
Symbol	Parameter	Limit	Unit	
V_{CBO}	Collector-Base Voltage	BC856	-80	V
		BC857	-50	
		BC858	-30	
V_{CEO}	Collector-Emitter Voltage	BC856	-65	V
		BC857	-45	
		BC858	-30	
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current		-100	mA
P_C	Collector Power Dissipation		200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient		625	°C/W
T_J	Junction Temperature		150	°C
T_{stg}	Storage Temperature		-55~+150	°C

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

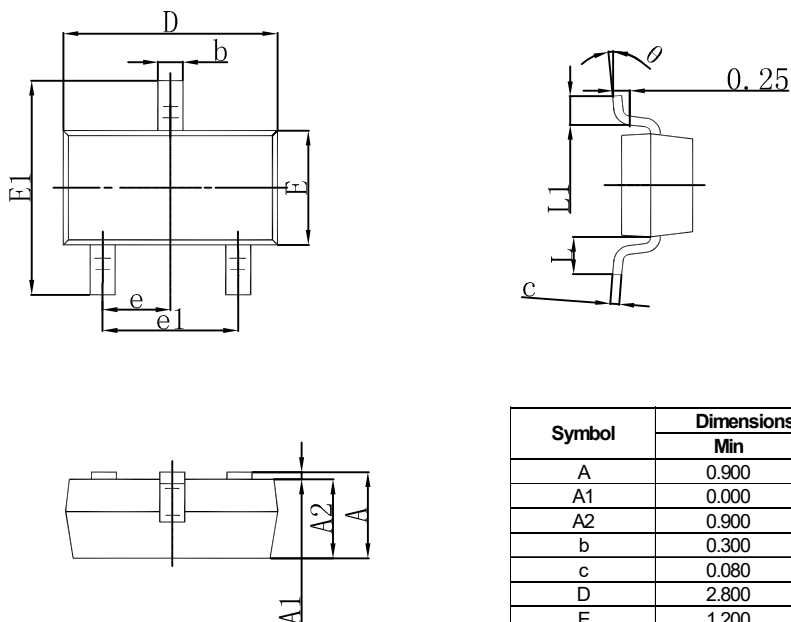
Symbol	Parameter	Part	Test conditions	Min	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	BC856 BC857 BC858	$I_C=-10\mu\text{A}$, $I_E=0$	-80 -50 -30		V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	BC856 BC857 BC858	$I_C=-10\text{mA}$, $I_B=0$	-65 -45 -30		V
$V_{(BR)EBO}$	Emitter-base breakdown voltage		$I_E=-10\mu\text{A}$, $I_C=0$	-5		V
I_{CBO}	Collector cut-off current	BC856 BC857 BC858	$V_{CB}=-70\text{V}$, $I_E=0$ $V_{CB}=-50\text{V}$, $I_E=0$ $V_{CB}=-30\text{V}$, $I_E=0$		-100	nA
I_{EBO}	Emitter cut-off current		$V_{EB}=-5\text{V}$, $I_C=0$		-100	nA
h_{FE}	DC current gain	BC856A BC857A BC858A BC856B BC857B BC858B BC856C BC857C BC858C	$V_{CE}=-5\text{V}$, $I_C=-2\text{mA}$	110 200 420	220 450 800	
$V_{CE(sat)}$	Collector-emitter saturation voltage		$I_C=-100\text{mA}$ $I_B=-5\text{mA}$		-0.5	V
$V_{BE(sat)}$	Base-emitter saturation voltage				-1.1	V
f_T	Transition frequency		$V_{CE}=-5\text{V}$, $I_C=-10\text{mA}$, $f=30\text{MHz}$	100		MHz
C_{ob}	Collector output capacitance		$V_{CB}=-10\text{V}$, $f=1\text{MHz}$		4.5	pF

Typical Characteristics



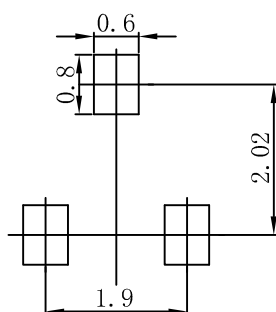


SOT-23 Package Outline Dimensions



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°

SOT-23 Suggested Pad Layout



Note:
 1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$. -100
 3. The pad layout is for reference purposes only.