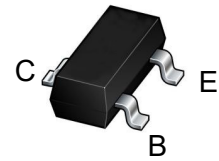


FEATURES

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

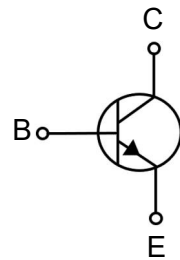


SOT-23

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BC846/BC847 /BC848	SOT-23	1★	3000

★: BC846A= **A**; BC846B= **B**; BC846C= **C**;
BC847A= **E**; BC847B= **F**; BC847C= **G**;
BC848A= **J**; BC848B= **K**; BC848C= **L**;



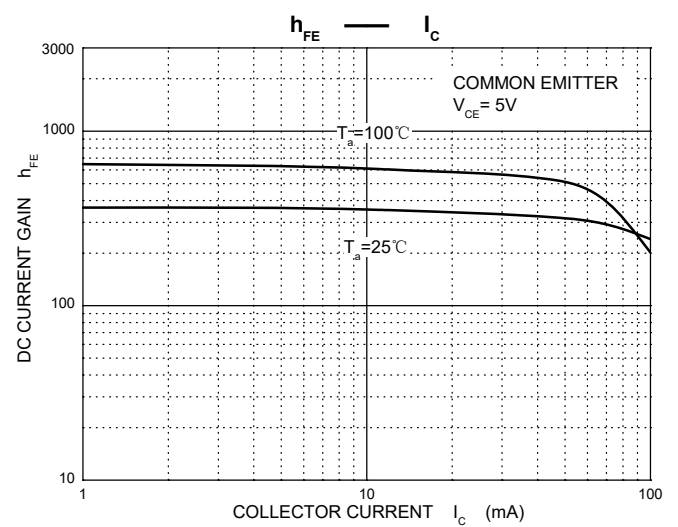
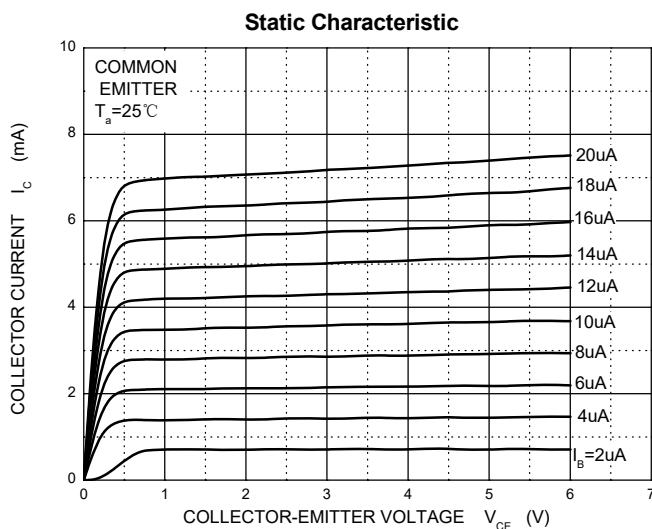
MAXIMUM RATINGS (Ta=25 unless otherwise noted)

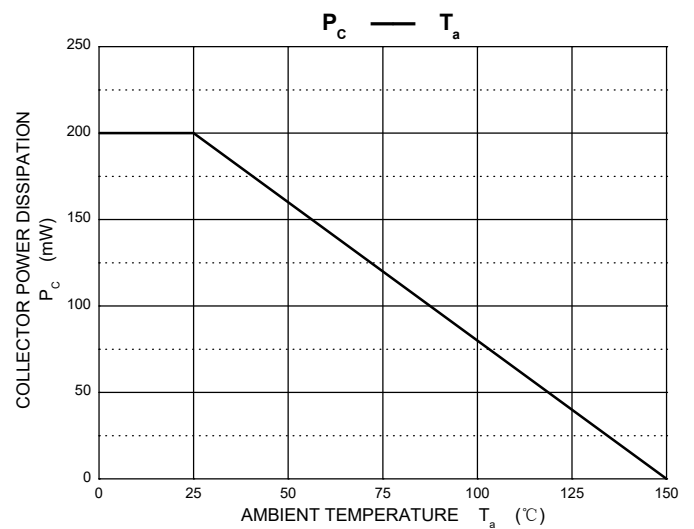
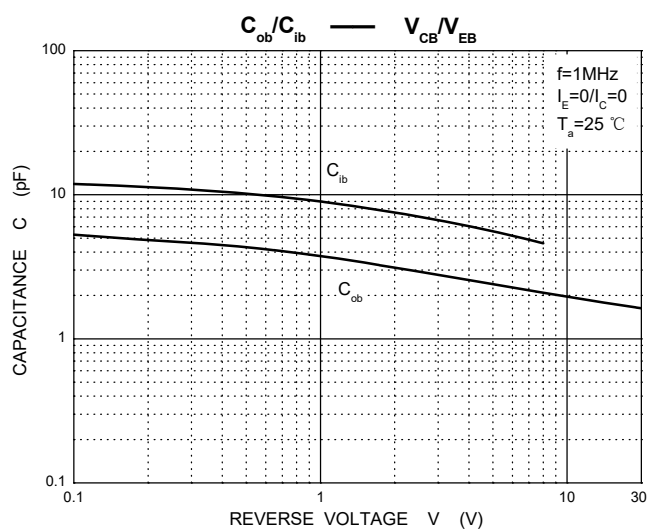
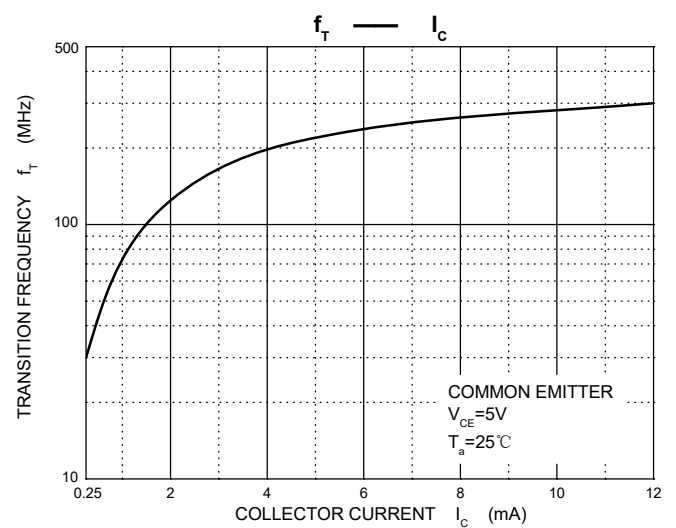
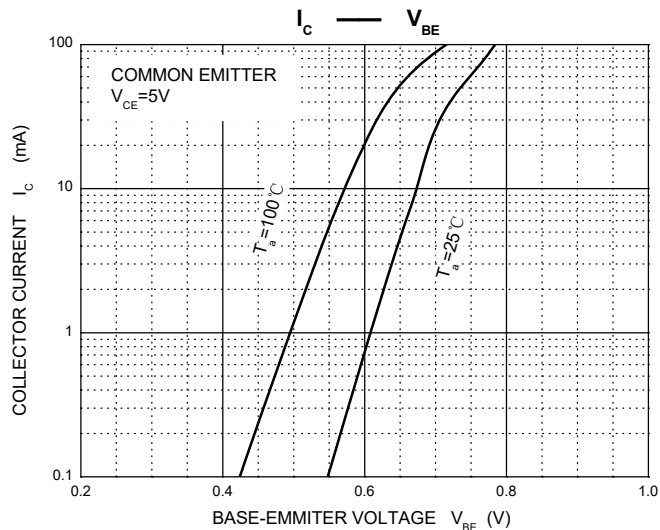
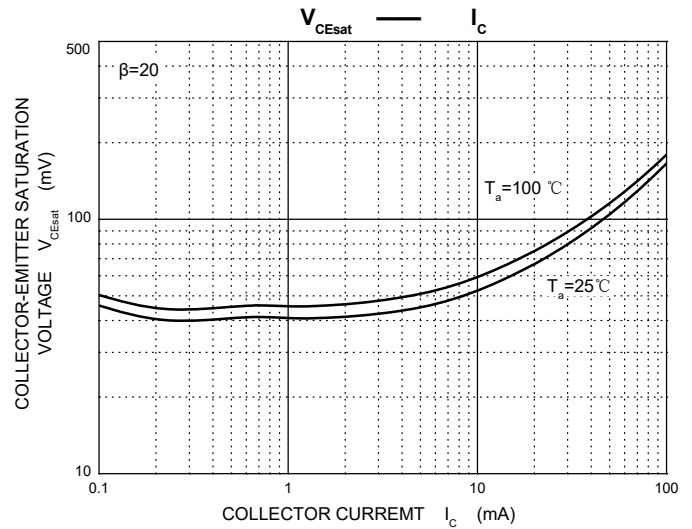
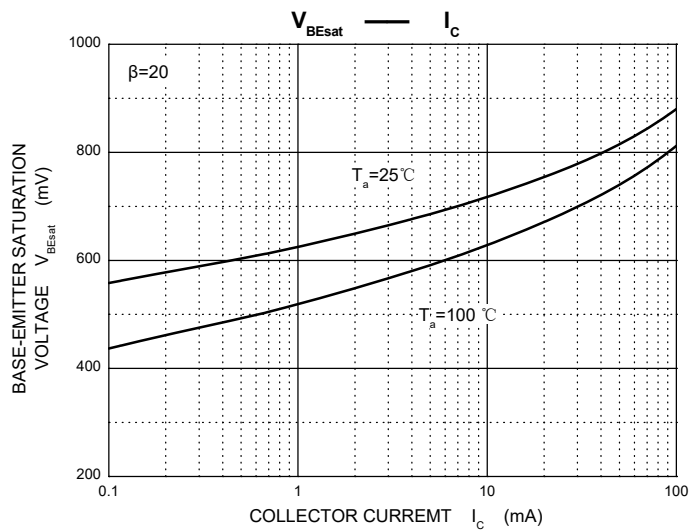
Symbol	Parameter	Limit	Unit	
V_{CBO}	Collector-Base Voltage	BC846	80	V
		BC847	50	
		BC848	30	
V_{CEO}	Collector-Emitter Voltage	BC846	65	V
		BC847	45	
		BC848	30	
V_{EBO}	Emitter-Base Voltage	6	V	
I_C	Collector Current	100	mA	
P_C	Collector Power Dissipation	200	mW	
$R_{\theta JA}$	Thermal Resistance 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 unless otherwise specified)

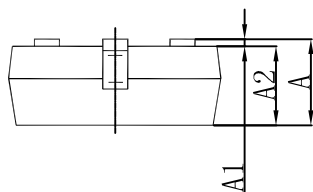
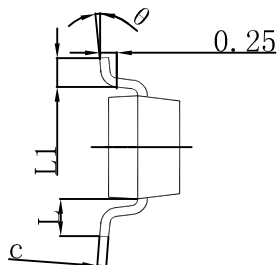
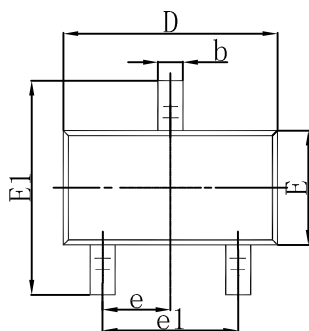
Symbol	Parameter		Test conditions	Min	Max	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	BC846 BC847 BC848	I _C =10μA, I _E =0	80 50 30		V
V _{(BR)CEO}	Collector-emitter breakdown voltage	BC846 BC847 BC848	I _C =10mA, I _B =0	65 45 30		V
V _{(BR)EBO}	Emitter-base breakdown voltage		I _E =10μA, I _C =0	6		V
I _{CBO}	Collector cut-off current	BC846 BC847 BC848	V _{CB} =70V, I _E =0 V _{CB} =50V, I _E =0 V _{CB} =30V, I _E =0		100	nA
I _{EBO}	Emitter cut-off current		V _{EB} =5V, I _C =0		100	nA
h _{FE}	DC current gain	BC846A BC847A BC848A BC846B BC847B BC848B BC846C BC847C BC848C	V _{CE} =5V, I _C =2mA	110 200 420	220 450 800	
V _{CE(sat)}	Collector-emitter saturation voltage		I _C =100mA, I _B =5mA		0.5	V
V _{BE(sat)}	Base-emitter saturation voltage				1.1	V
f _T	Transition frequency		V _{CE} =5V, I _C =10mA, f=30MHz	100		MHz
C _{ob}	Collector output capacitance		V _{CB} =10V,f= 1MHz		4.5	pF

Typical Characteristics



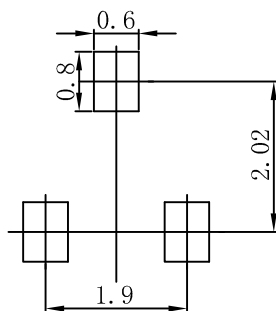


SOT-23 Package Outline Dimensions



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: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.