

1. BASE

2. EMITTER

3. COLLECTOR

Marking:

BC846A=1A	BC846B=1B	
BC847A=1E	BC847B=1F	BC847C=1G
BC848A=1J	BC848B=1K	BC848C=1L

特征 Features

- Complementary to BC856/BC857/BC858
- Power Dissipation of 200mW
- Ideally suited for automatic insertion
- For switching and AF amplifier applications

机械数据 Mechanical Data

- Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

极限值和温度特性(TA = 25°C 除非另有规定)

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol		数值 Value	单位 Unit
Collector-Base Voltage	V _{CBO}	BC846 BC847 BC848	80 50 30	V
Collector-Emitter Voltage	V _{CEO}	BC846 BC847 BC848	65 45 30	V
Emitter -Base Voltage	V _{EBO}		6	V
Collector Current-Continuous	I _C		100	mA
Collector Power Dissipation	P _C		200	mW
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55-+150	°C
Thermal resistance From junction to ambient	R _{θJA}		625	°C/W

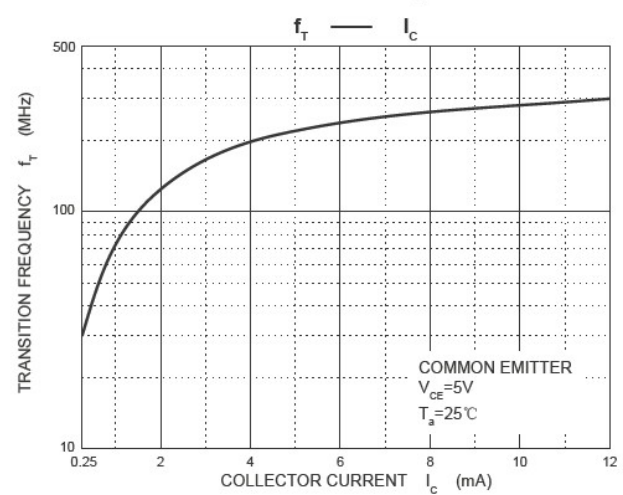
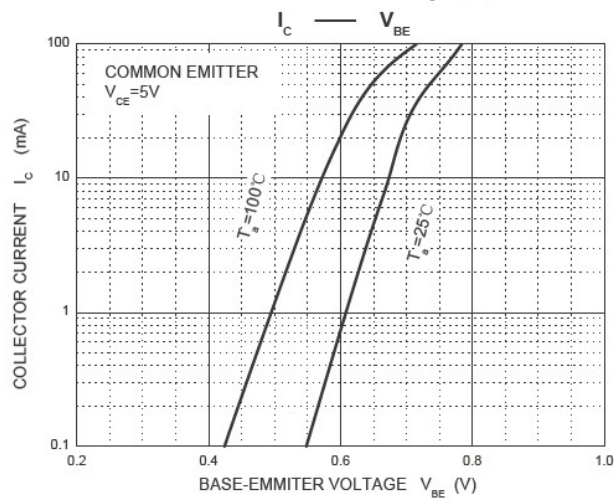
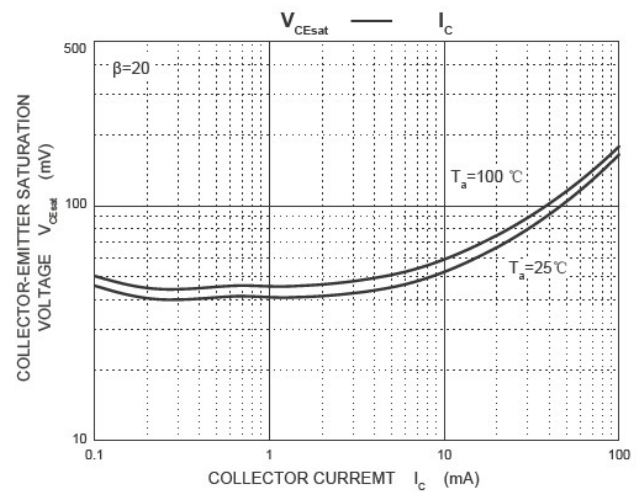
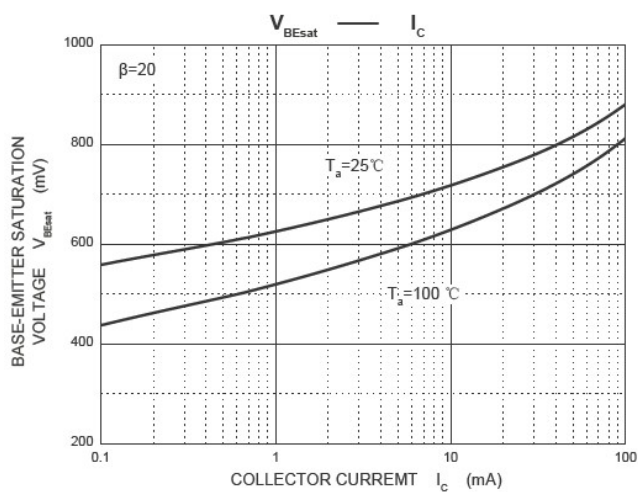
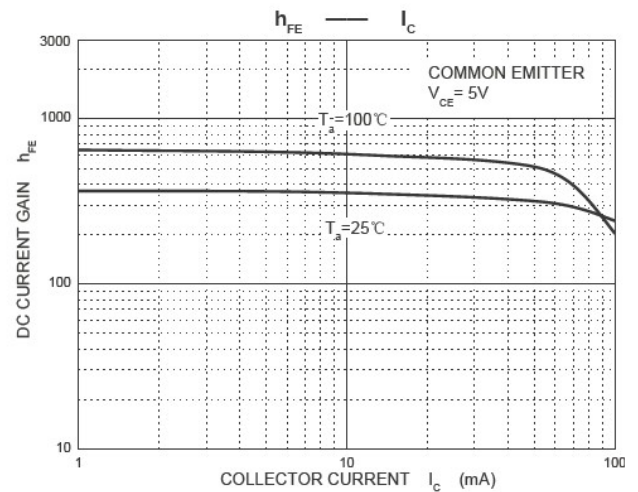
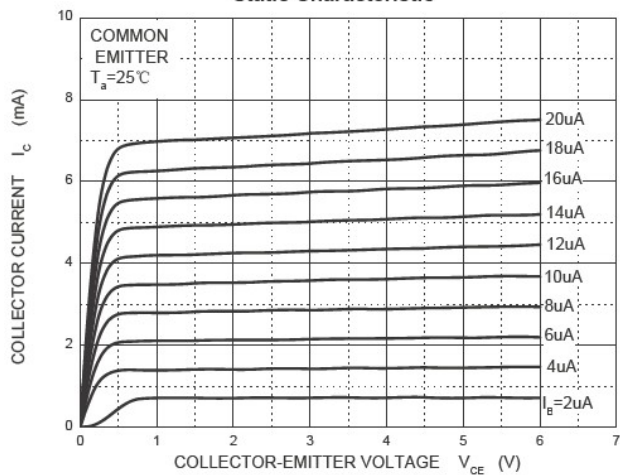
电特性 (TA = 25°C 除非另有规定)

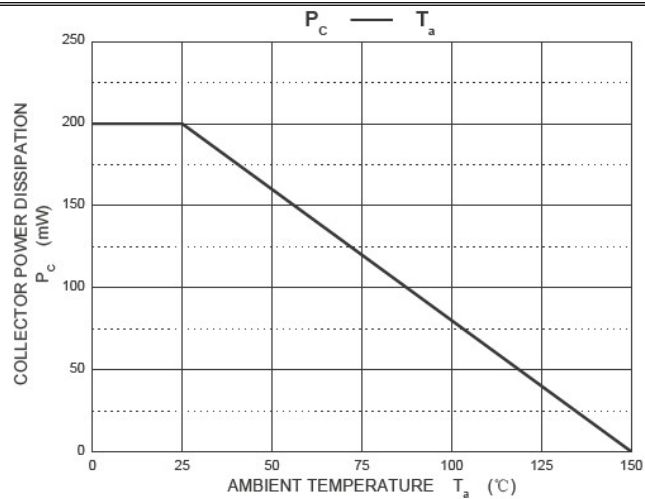
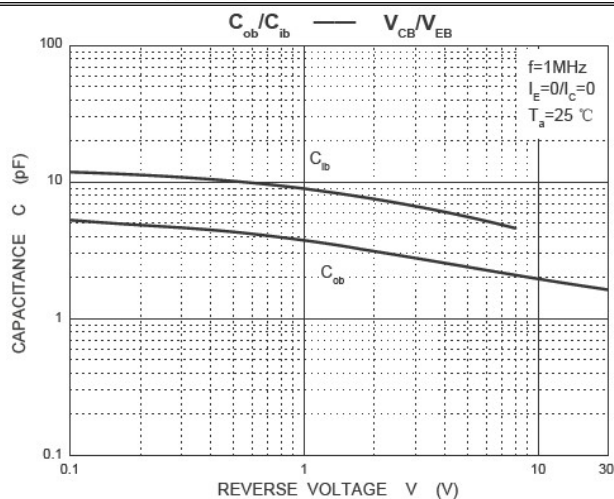
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =10uA, I _E =0 BC846 BC847 BC848	80 50 30		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =10mA, I _B =0 BC846 BC847 BC848	65 45 30		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10uA, I _C =0	6		V
Collector cut-off current	I _{CBO}	V _{CB} =70V, I _E =0 V _{CB} =50V, I _E =0 V _{CB} =30V, I _E =0 BC846 BC847 BC848		100	nA
Collector cut-off current	I _{CEO}	V _{CE} =60V, I _B =0 V _{CE} =45V, I _B =0 V _{CE} =30V, I _B =0 BC846 BC847 BC848		100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0		100	nA
DC current gain	h _{FE}	V _{CE} =5V, I _C =2mA BC846A;BC847A;BC848A BC846B;BC847B;BC848B BC847C;BC848C	110 200 420	220 450 800	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =100mA, I _B =5mA		0.50	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =100mA, I _B =5mA		1.10	V
Transition frequency	f _T	V _{CE} =5V, I _C =10mA, f=100MHz	100		MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, f=1MHz		4.5	pF

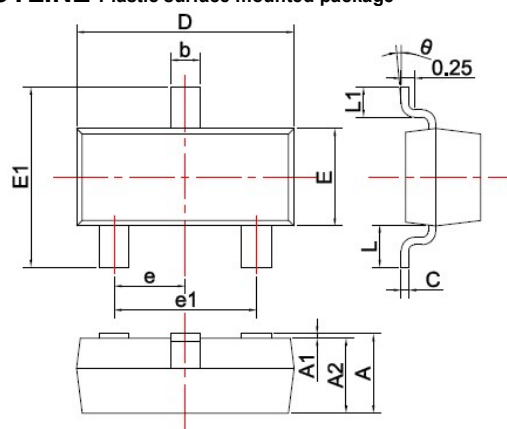
Typical characteristics

Static Characteristic





SOT-23 PACKAGE OUTLINE Plastic surface mounted package

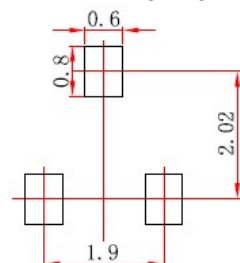


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

焊盘设计参考Precautions: PCB Design

Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs



- Note:
1. Controlling dimension: In millimeters.
 2. General tolerance: ± 0.05 mm.
 3. The pad layout is for reference purposes only.