

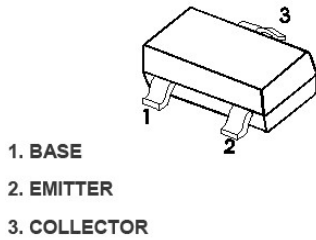
BC817 TRANSISTOR(NPN)

Rev.1.0

SOT-23

SOT-23 贴片塑封三极管

SOT-23 Plastic-Encapsulate Transistors



特征 Features

- 与 BC807 配对; Complementary to BC807
- 最大功率耗散 300mW; Power Dissipation of 300mW
- 高稳定性和可靠性。High Stability and High Reliability

机械数据 Mechanical Data

- 封装: SOT-23 封装 SOT-23 Small Outline Plastic Package
- 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
- 安装位置: 任意 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}	50	V
Collector-Emitter Voltage	V _{CEO}	45	V
Emitter -Base Voltage	V _{EBO}	5	V
Collector Current-Continuous	I _C	500	mA
Collector Power Dissipation	P _C	300	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-+150	°C
Thermal resistance from junction to ambient	R _{θJA}	417	°C/W

电特性 (TA = 25°C 除非另有规定)

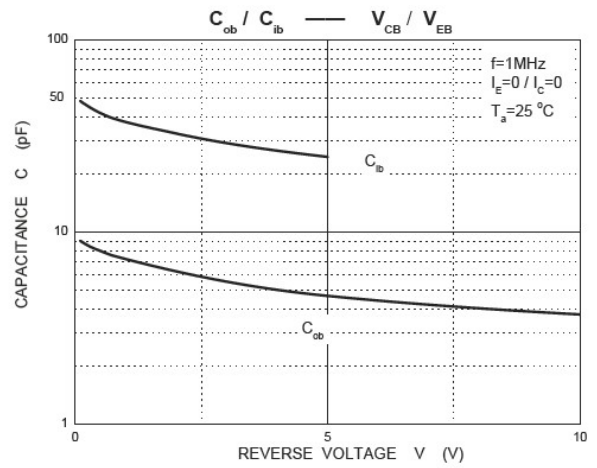
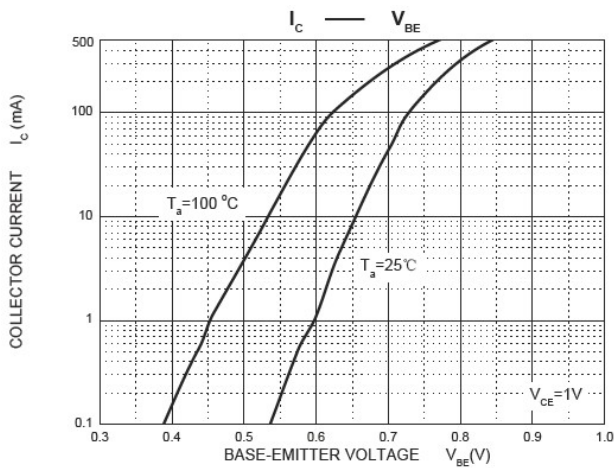
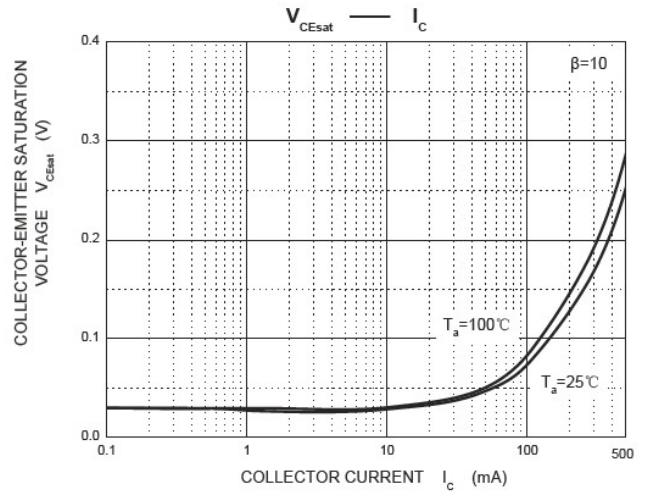
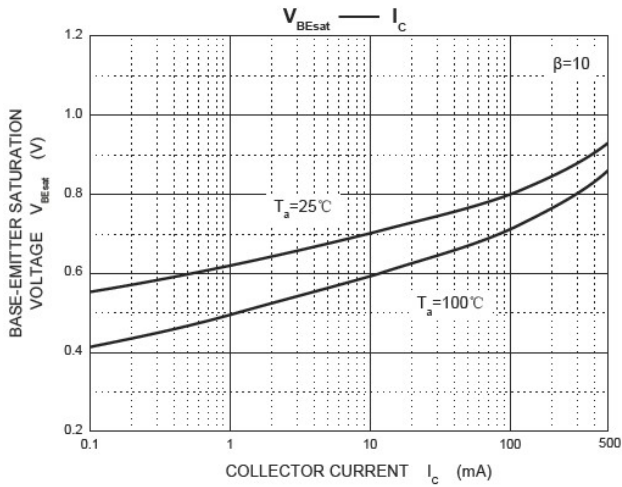
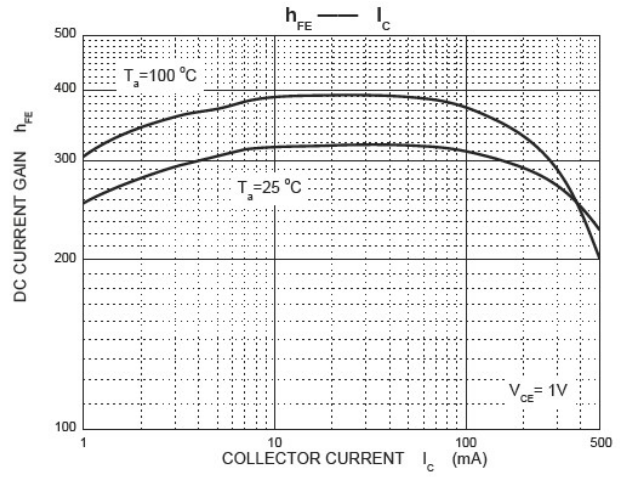
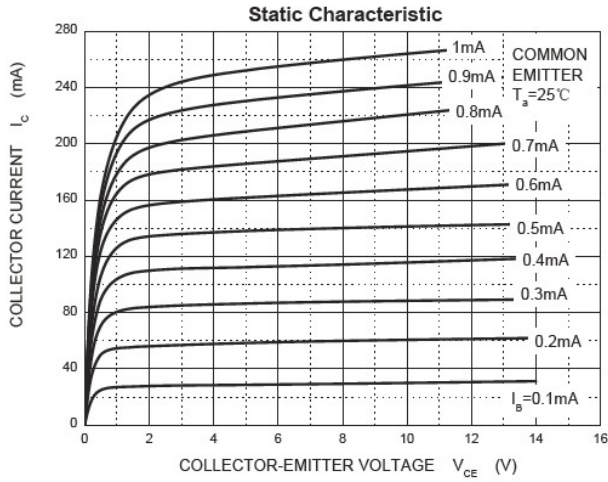
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

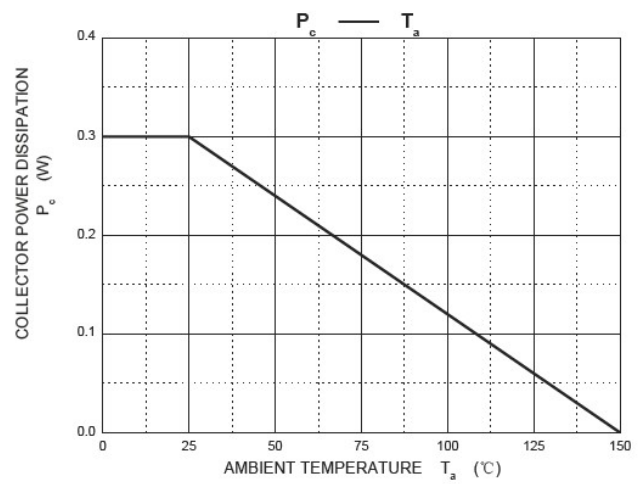
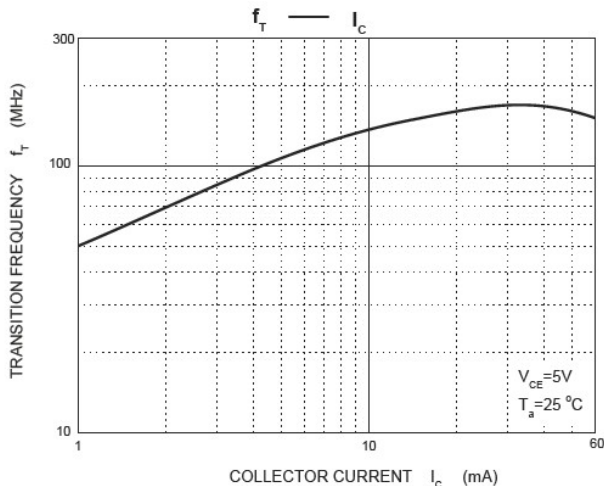
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	I _C =10μA, I _E =0	50		V
Collector-emitter breakdown voltage	V(BR)CEO	I _C =10mA, I _B =0	45		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =1μA, I _C =0	5		V
Collector cut-off current	I _{CBO}	V _{CB} =45V, I _E =0		100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0		100	nA
DC current gain	h _{FE} (1)	V _{CE} =1V, I _C =100mA	100	600	
	h _{FE} (2)	V _{CE} =1V, I _C =500mA	40		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500mA, I _B =50mA		0.70	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =500mA, I _B =50mA		1.20	V
Base-emitter voltage	V _{BE}	V _{CE} =1V, I _C =500mA		1.20	
Collector output capacitance	C _{ob}	V _{CB} =10V, f=1MHz	10(Typ)		
Transition frequency	f _t	V _{CE} =5V, I _C =10mA, f=100MHz	100		MHz

CLASSIFICATION OF h_{FE}(1)

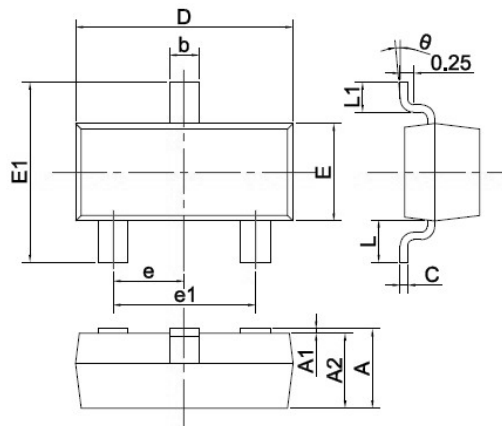
RANK	BC817-16	BC817-25	BC817-40
RANGE	100-250	160-400	250-600
Marking	6A	6B	6C

Typical characteristics





SOT-23 PACKAGE OUTLINE Plastic surface mounted package

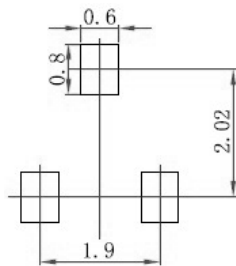


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

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: ± 0.05mm.
 3. The pad layout is for reference purposes only.

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