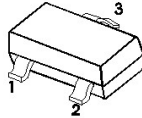


SOT-23

SOT-23 贴片塑封三极管

SOT-23 Plastic-Encapsulate Transistors



- 1. BASE
- 2. EMITTER
- 3. COLLECTOR

Marking:

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

特征 Features

- Complementary to BC846/BC847/BC848
- 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.)

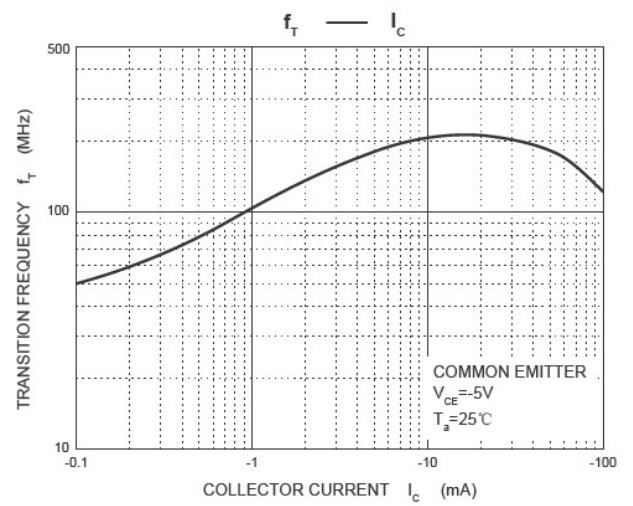
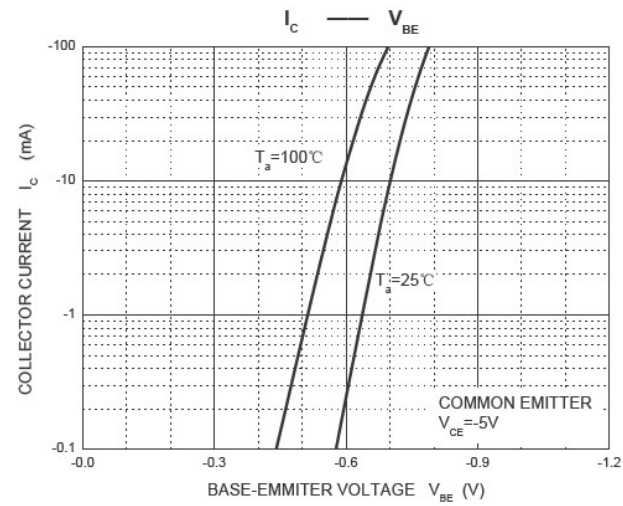
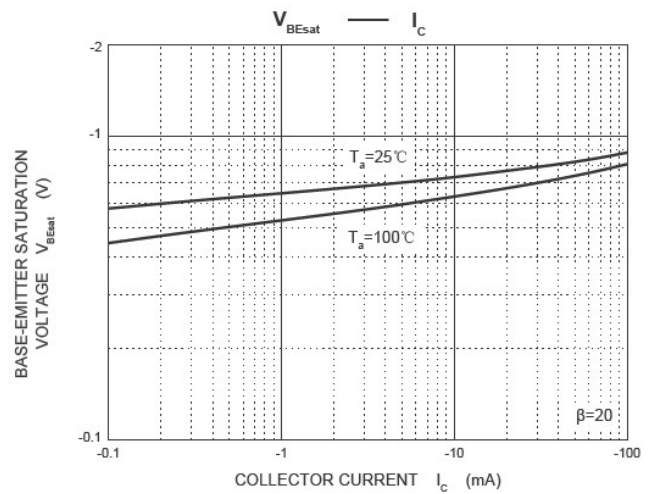
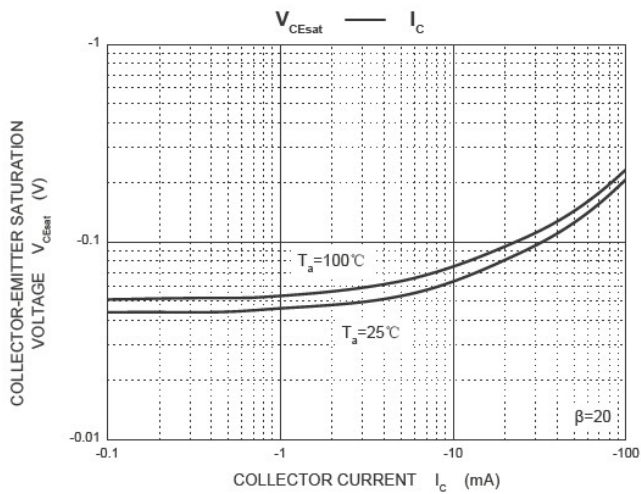
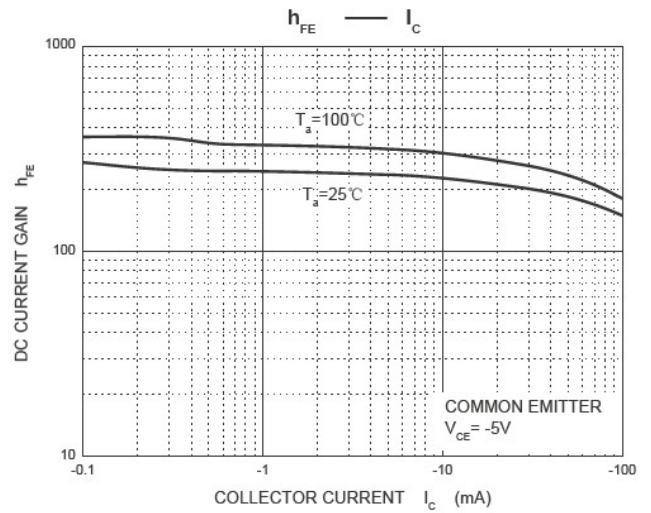
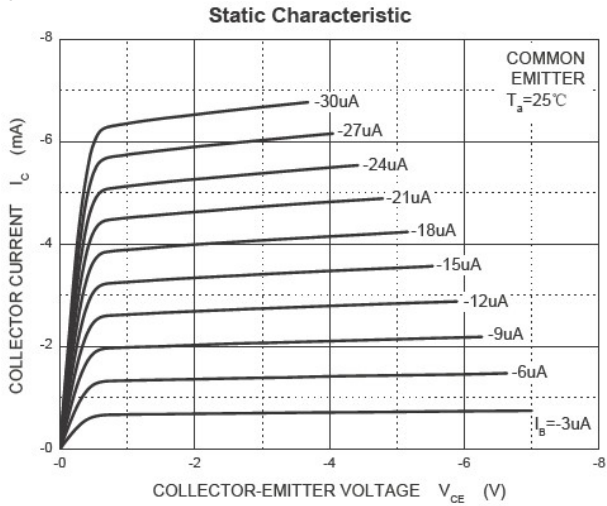
参数 Parameters	符号 Symbol		数值 Value	单位 Unit
Collector-Base Voltage	V <sub>CB0</sub>	BC856 BC857 BC858	-80 -50 -30	V
Collector-Emitter Voltage	V <sub>CEO</sub>	BC856 BC857 BC858	-65 -45 -30	V
Emitter -Base Voltage	V <sub>EBO</sub>		-6	V
Collector Current-Continuous	I <sub>C</sub>		-100	mA
Collector Power Dissipation	P <sub>C</sub>		200	mW
Junction Temperature	T <sub>j</sub>		150	°C
Storage Temperature	T <sub>stg</sub>		-55-+150	°C
Thermal resistance From junction to ambient	R <sub>θJA</sub>		625	°C/W

电特性 (TA = 25°C 除非另有规定)

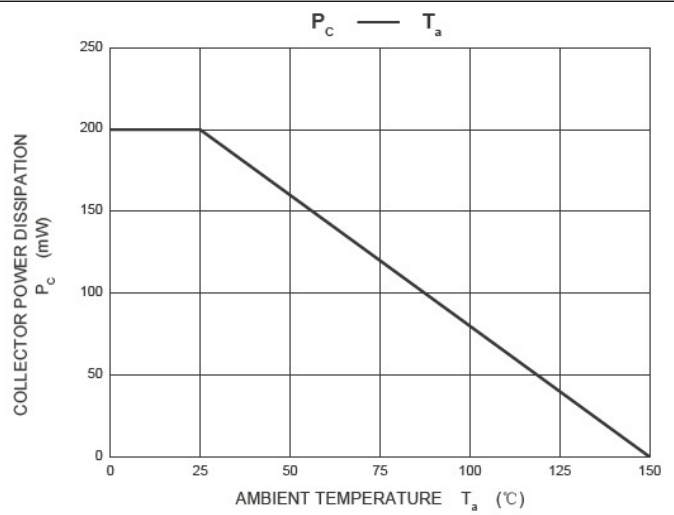
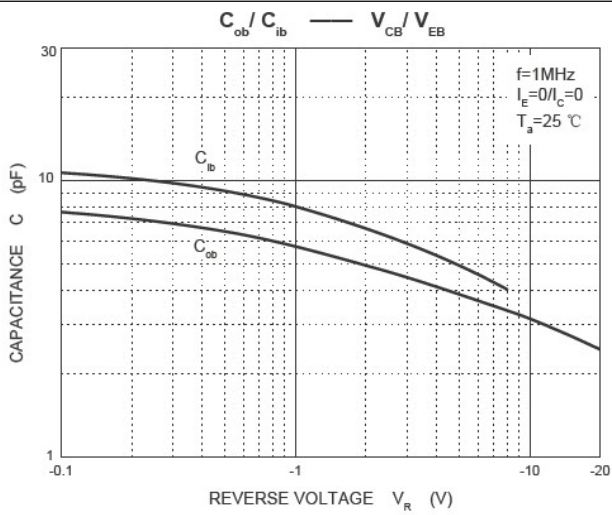
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

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 <sub>(BR)CBO</sub>	I <sub>C</sub> =-10μA, I <sub>E</sub> =0 BC856 BC857 BC858	-80 -50 -30		V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =-10mA, I <sub>B</sub> =0 BC856 BC857 BC858	-65 -45 -30		V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =10μA, I <sub>C</sub> =0	-6		V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =-70V, I <sub>E</sub> =0 V <sub>CB</sub> =-45V, I <sub>E</sub> =0 V <sub>CB</sub> =-25V, I <sub>E</sub> =0 BC856 BC857 BC858		-100	nA
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> =-60V, I <sub>B</sub> =0 V <sub>CE</sub> =-40V, I <sub>B</sub> =0 V <sub>CE</sub> =-25V, I <sub>B</sub> =0 BC856 BC857 BC858		-100	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =-5V, I <sub>C</sub> =0		-100	nA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> =-2mA BC856A;BC857A;BC858A BC856B;BC857B;BC858B BC857C;BC858C	125 220 420	250 475 800	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-100mA, I <sub>B</sub> =-5mA		-0.50	V
Base -emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =-100mA, I <sub>B</sub> =-5mA		-1.10	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> =-10mA, f=100MHz	100		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V, f=1MHz		4.5	pF

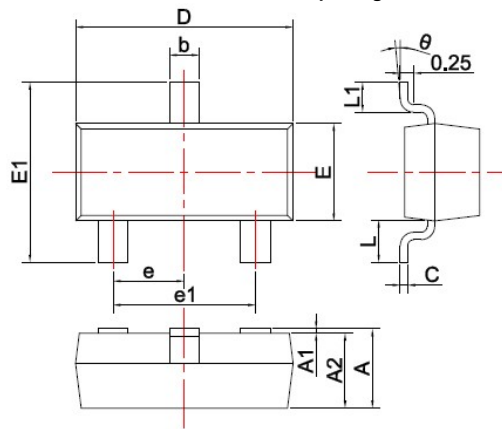
Typical characteristics



# BC856/BC857/BC858



## SOT-23 PACKAGE OUTLINE Plastic surface mounted package

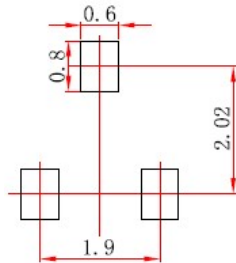


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
$\theta$	0 $^\circ$	8 $^\circ$

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