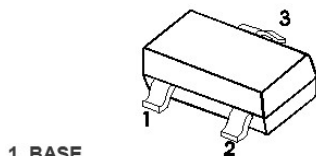


SOT-323


1. BASE

2. EMITTER

3. COLLECTOR

特征 Features

- For General AF Applications
- High Collector Current
- High Current Gain
- Low Collector-Emitter Saturation Voltage

机械数据 Mechanical Data

- SOT-323 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}	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	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

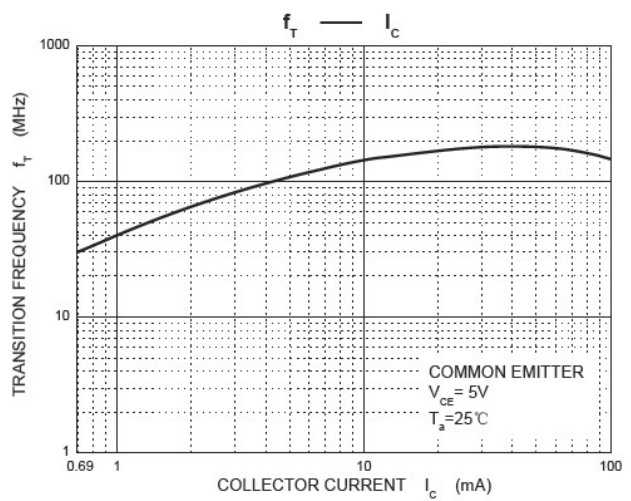
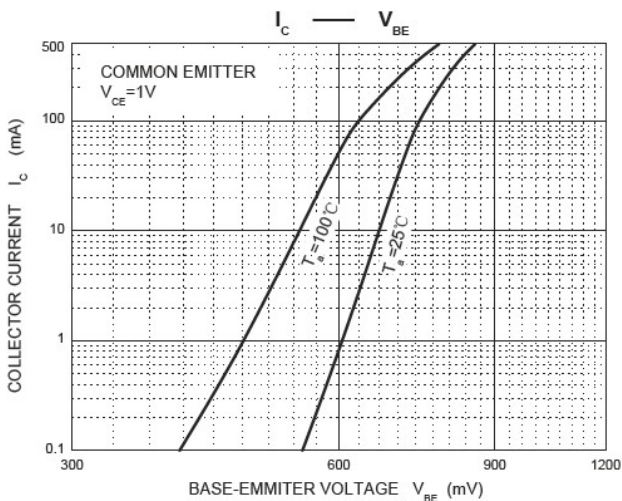
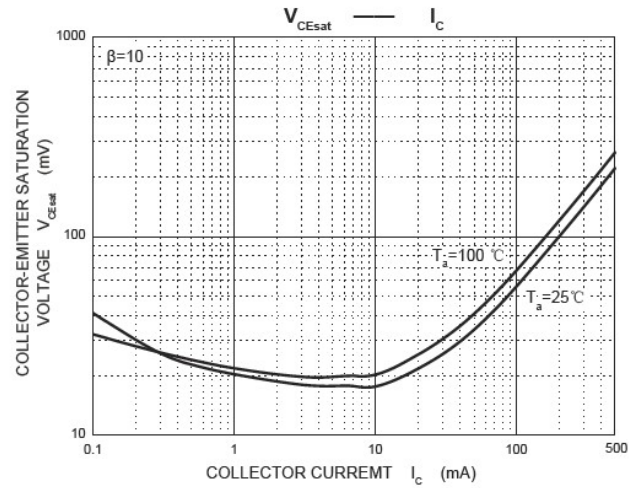
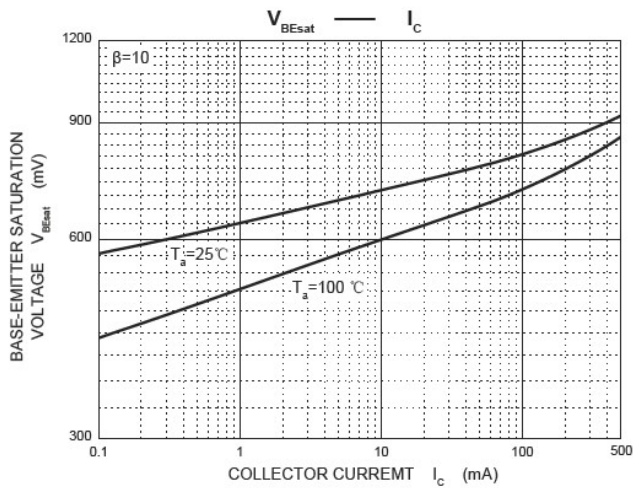
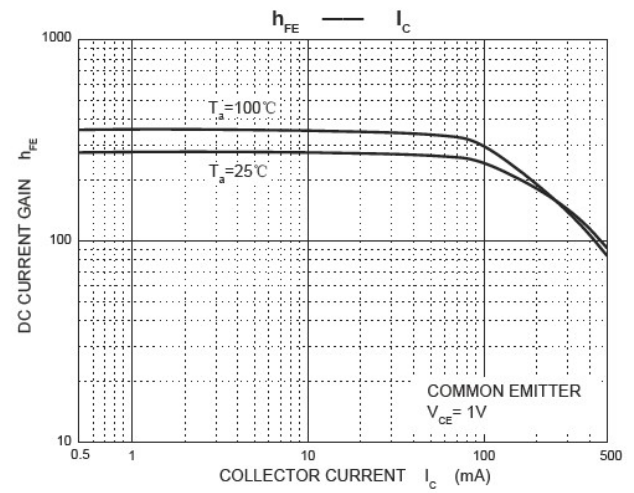
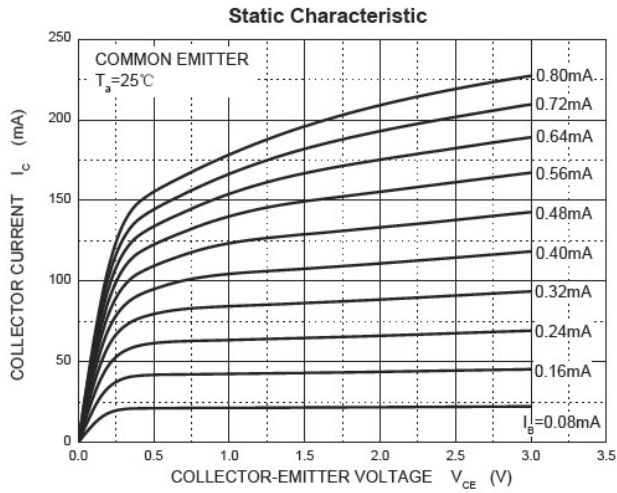
电特性 (TA = 25°C 除非另有规定)

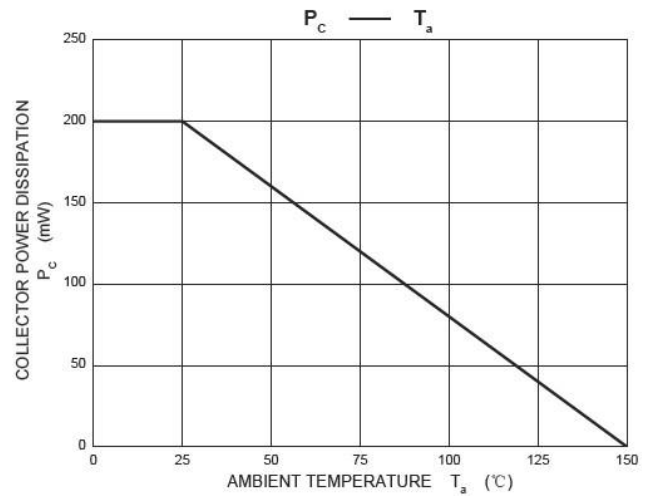
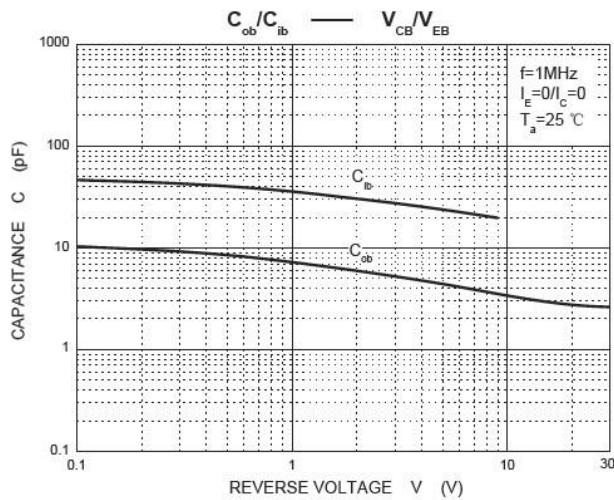
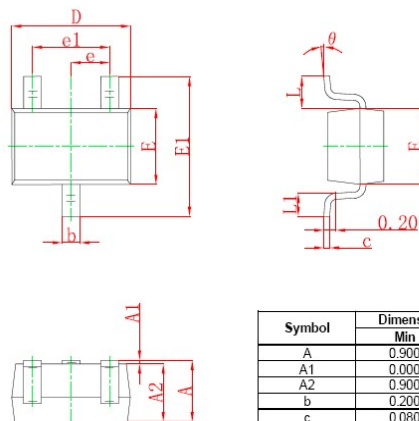
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

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	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 =1uA, I _C =0	5		V
Collector cut-off current	I _{CBO}	V _{CB} =20V, I _E =0		100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0		100	nA
DC current gain	hFE(1)	V _{CE} =1V, I _C =100mA	100	600	
	hFE(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(ON)}	V _{CE} =1V, I _C =500mA		1.20	V
Collector output capacitance	C _{ob}	V _{CB} =10V, f=1MHz		5	pF
Transition frequency	f _t	V _{CE} =5V, I _C =10mA, f=100MHz	100		MHz

CLASSIFICATION OF hFE(1)

RANK	BC817-40W,115-CN
RANGE	250-600
Marking	6C

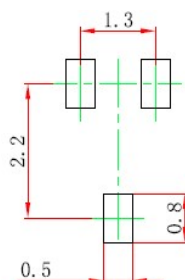
Typical characteristics



SOT-323 PACKAGE OUTLINE Plastic surface mounted package


Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°		8°	

焊盘设计参考Precautions: PCB Design

Recommended land dimensions for SOT-323 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.

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