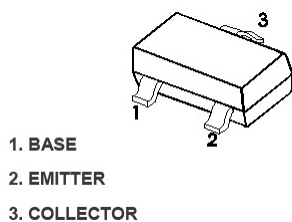


SOT-23

Marking: 3D
特征 Features

- 最大功率耗散 350mW; Power Dissipation of 350mW
- 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.)

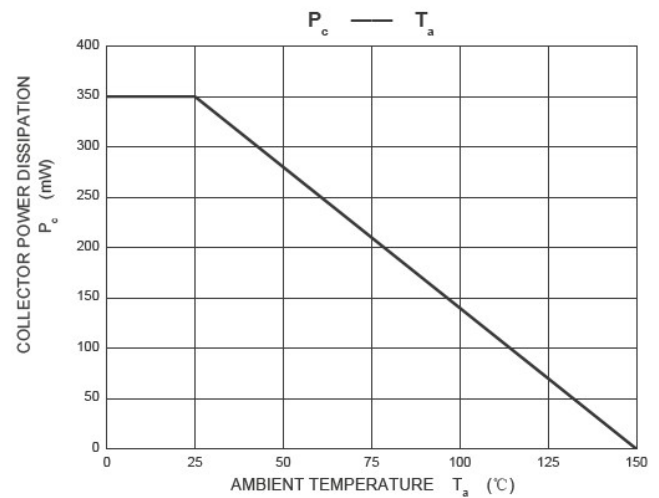
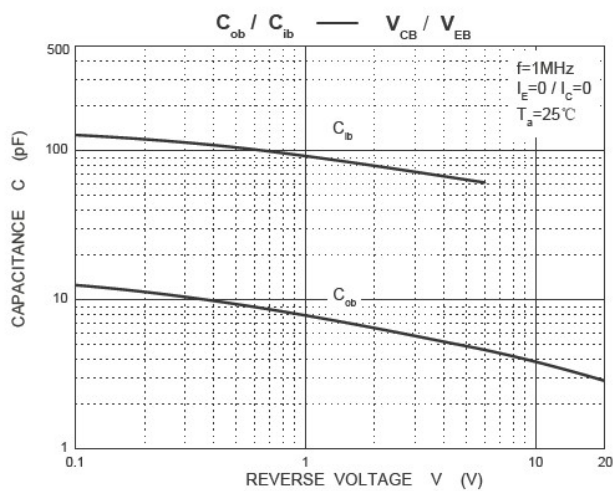
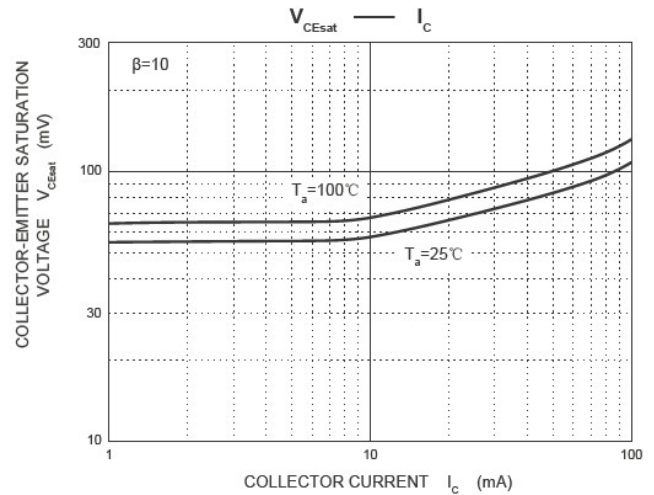
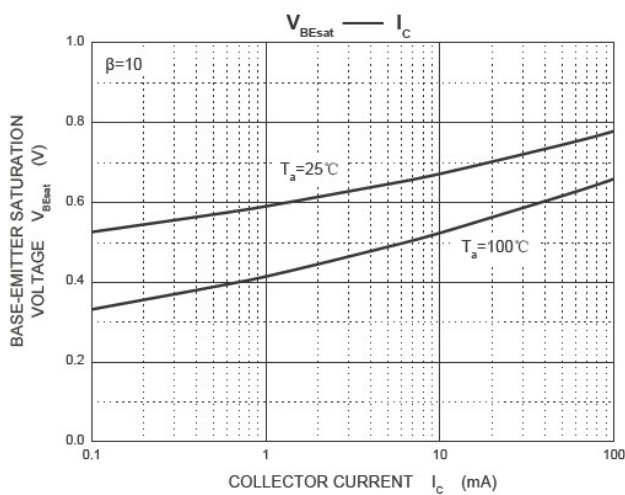
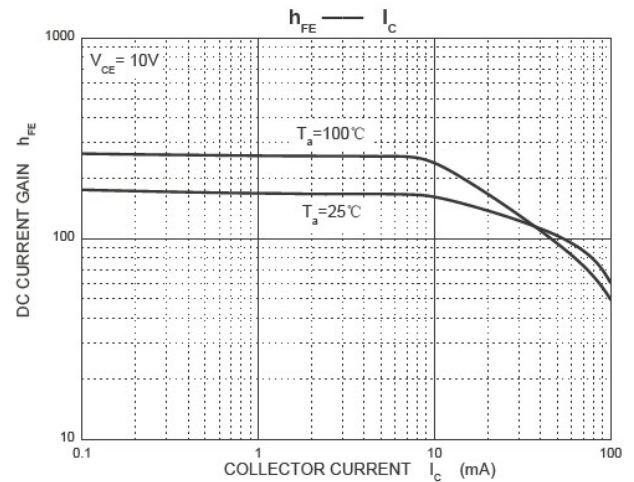
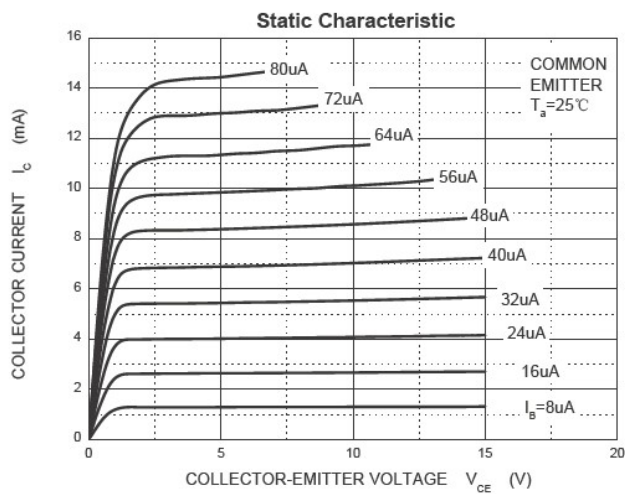
参数 Parameters	符号 Symbol	数值 Value	单位 Unit
Collector-Base Voltage	V _{CBO}	400	V
Collector-Emitter Voltage	V _{CEO}	400	V
Emitter -Base Voltage	V _{EBO}	6	V
Collector Current-Continuous	I _C	200	mA
Collector Power Dissipation	P _C	350	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-+150	°C
Thermal resistance From junction to ambient	R _{θJA}	357	°C/W

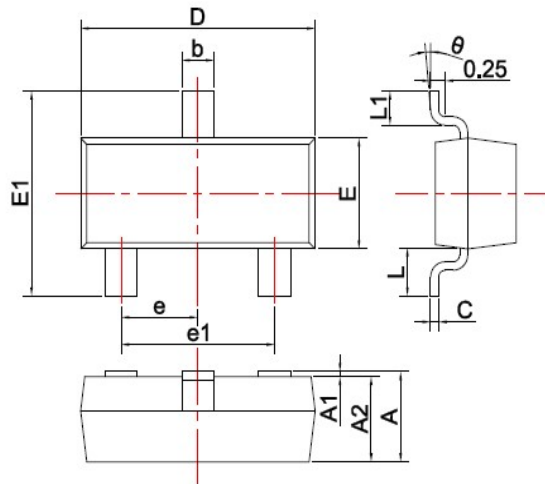
电特性 (TA = 25°C 除非另有规定)

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 =100uA, I _E =0	400		V
Collector-emitter breakdown voltage	V(BR)CEO	I _C =1mA, I _B =0	400		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =10uA, I _C =0	6		V
Collector cut-off current	I _{CBO}	V _{CB} =400V, I _E =0		100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0		100	nA
DC current gain	hFE(1)*	V _{CE} =10V, I _C =1mA	40		
	hFE(2)*	V _{CE} =10V, I _C =10mA	50	200	
	hFE(3)*	V _{CE} =10V, I _C =50mA	45		
	hFE(4)*	V _{CE} =10V, I _C =100mA	40		
Collector-emitter saturation voltage	V _{CE(sat)} 1*	I _C =1mA, I _B =0.1mA		0.40	V
Collector-emitter saturation voltage	V _{CE(sat)} 2*	I _C =10mA, I _B =1mA		0.50	V
Collector-emitter saturation voltage	V _{CE(sat)} 3*	I _C =50mA, I _B =5mA		0.75	V
Base -emitter saturation voltage	V _{BE(sat)} *	I _C =10mA, I _B =1mA		0.75	V
Collector output capacitance	C _{ob}	V _{CB} =20V, I _E =0; f=1MHz		7	pF
Emitter input capacitance	C _{ib}	V _{EB} =0.5V, I _C =0; f=1MHz		130	pF

*Pulse test: pulse width ≤ 300us, duty cycle ≤ 2.0%.

Typical characteristics


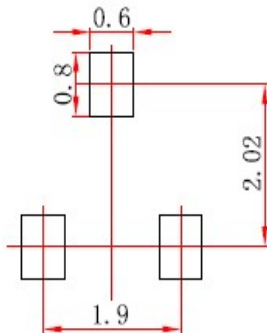
SOT-23 PACKAGE OUTLINE Plastic surface mounted package


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

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