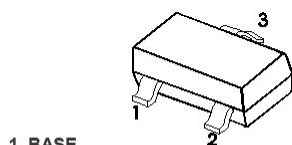


SOT-23



1. BASE

2. EMITTER

3. COLLECTOR

Marking: Y2

特征 Features

- 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}	-40	V
Collector-Emitter Voltage	V _{CEO}	-25	V
Emitter -Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _C	-1500	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

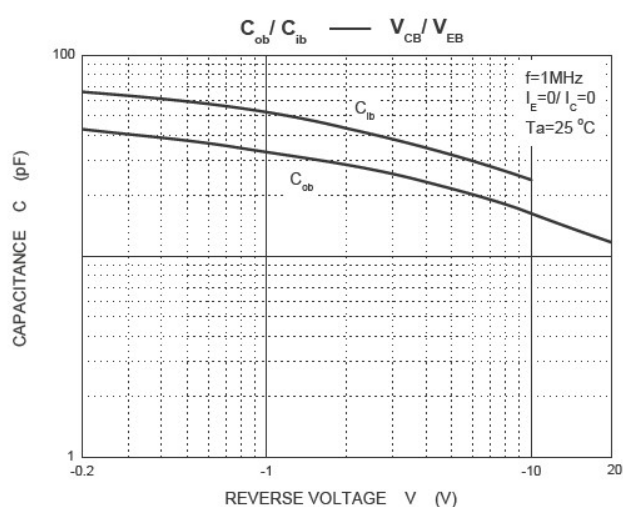
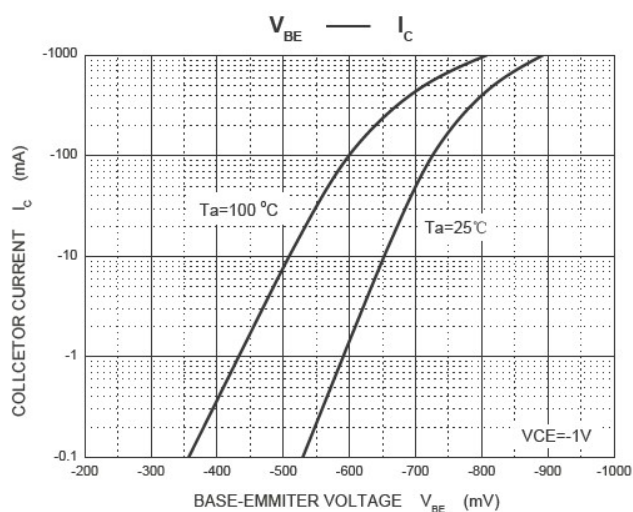
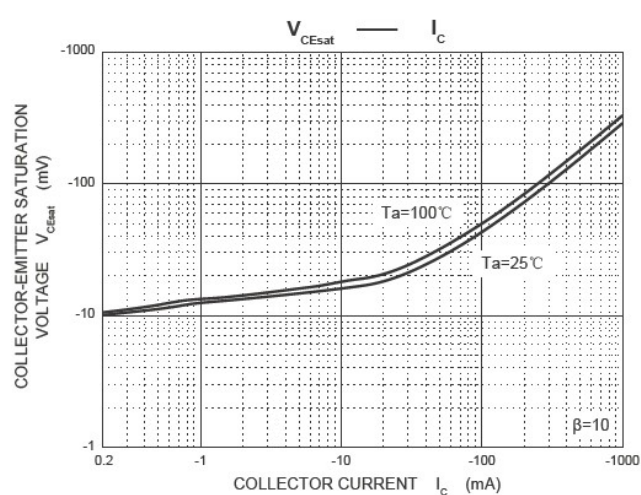
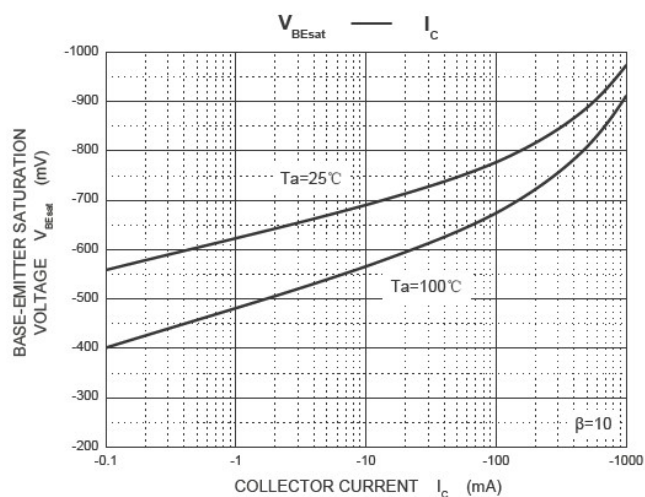
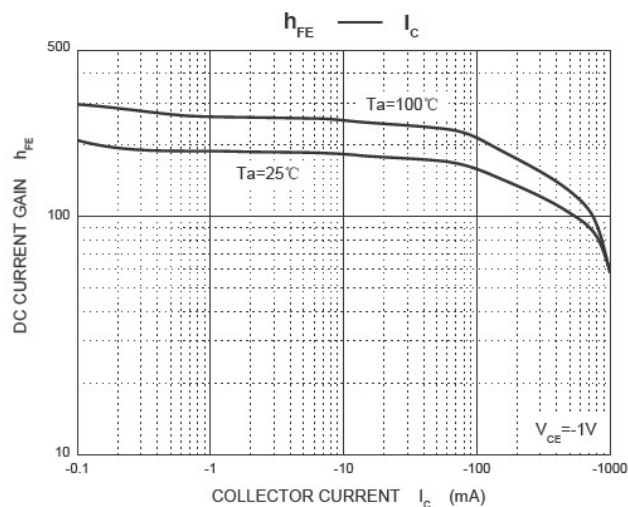
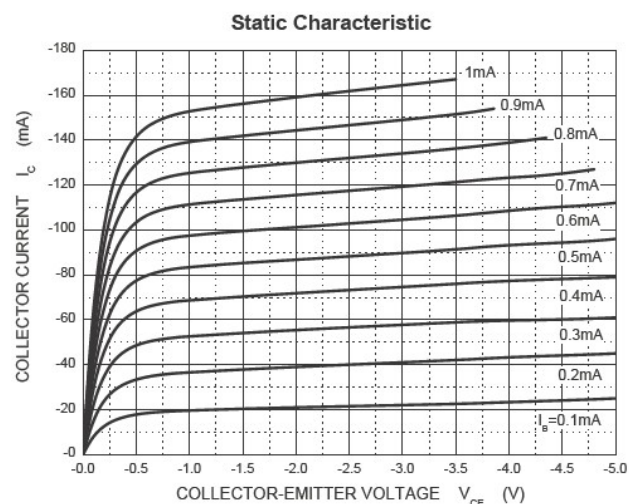
电特性 (TA = 25°C 除非另有规定)

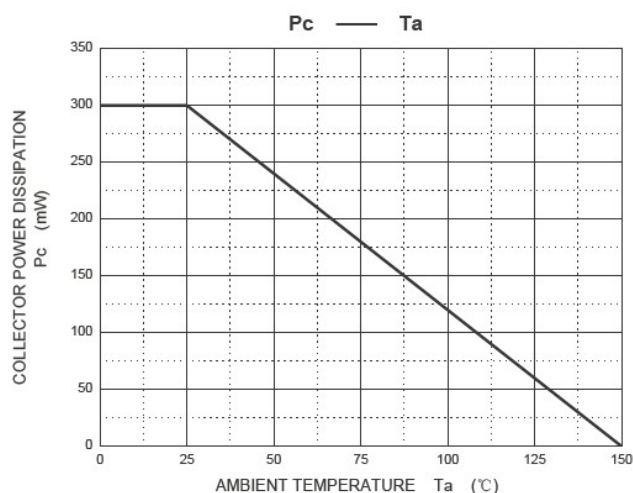
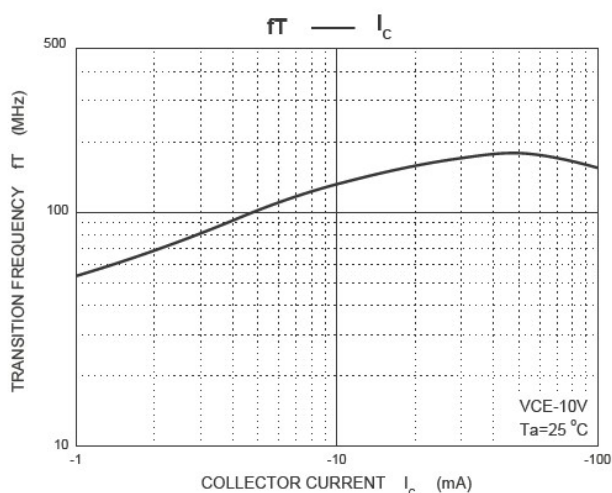
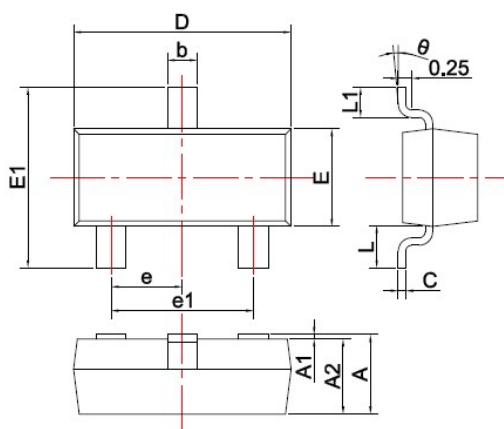
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

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 =-100uA, I _E =0	-40		V
Collector-emitter breakdown voltage	V(BR)CEO	I _C =-0.1mA, I _B =0	-25		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =-100uA, I _C =0	-5		V
Collector cut-off current	I _{CEO}	V _{CE} =-20V, I _B =0		-100	nA
Collector cut-off current	I _{CBO}	V _{CB} =-40V, I _E =0		-100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-3V, I _C =0		-100	nA
DC current gain	hFE(1)	V _{CE} =-1V, I _C =-100mA	120	400	
	hFE(2)	V _{CE} =-1V, I _C =-800mA	50		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-800mA, I _B =-80mA		-0.60	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =-800mA, I _B =-80mA		-1.20	V
Base-emitter voltage	V _{BE}	V _{CE} =-1V, I _C =-10mA		-1.00	V
Transition frequency	f _T	V _{CE} =-10V, I _C =-50mA, f=30MHz	100		MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz		20	pF

CLASSIFICATION OF hFE(1)

RANK	L	H	J
RANGE	120-200	200-350	300-400

Typical characteristics


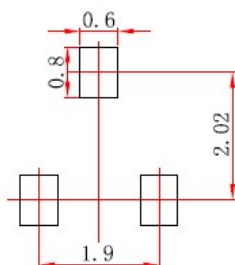

SOT-23 PACKAGE OUTLINE Plastic surface mounted package


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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