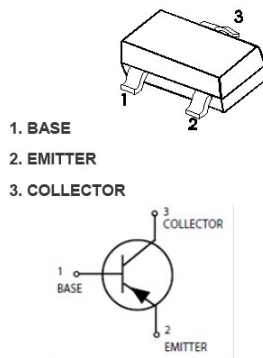


SOT-23



Marking: 2A

特征 Features

- Power Dissipation of 200mW
- High Stability and High Reliability

机械数据 Mechanical Data

- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any
- High temperature soldering guaranteed: 260°C/10s
- We declare that the material of product compliant with RoHS requirements and Halogen free

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}	-40	V
Emitter -Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _C	-200	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

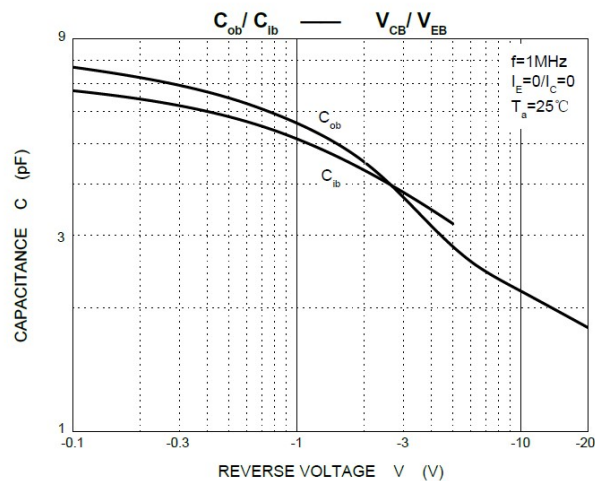
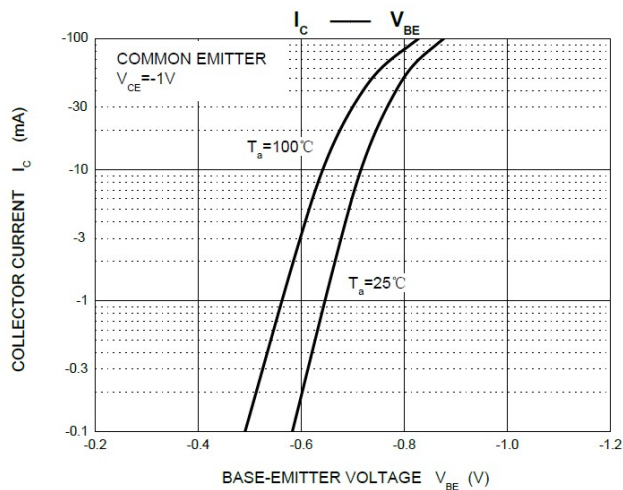
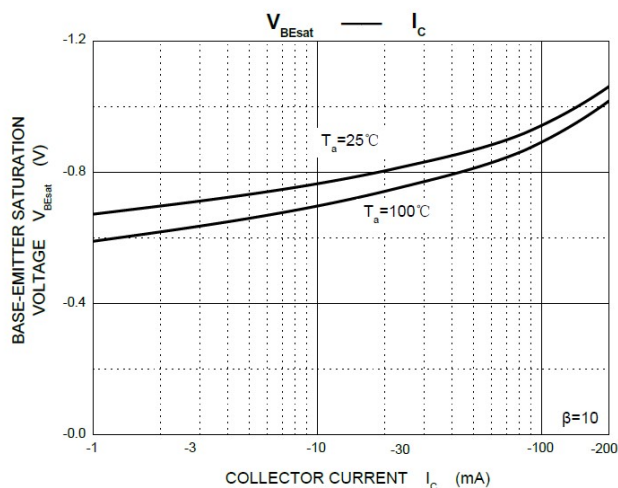
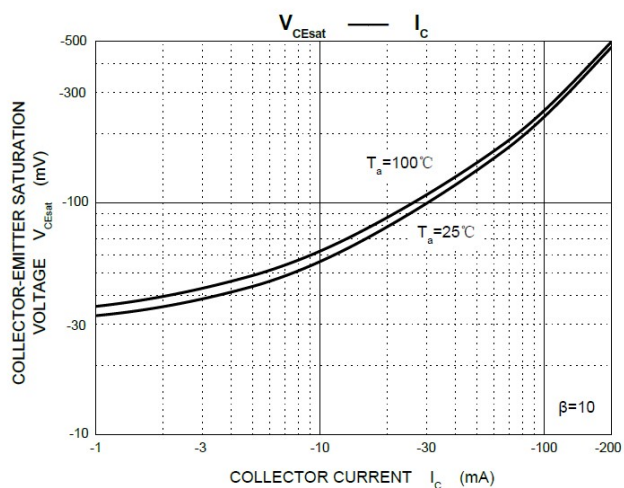
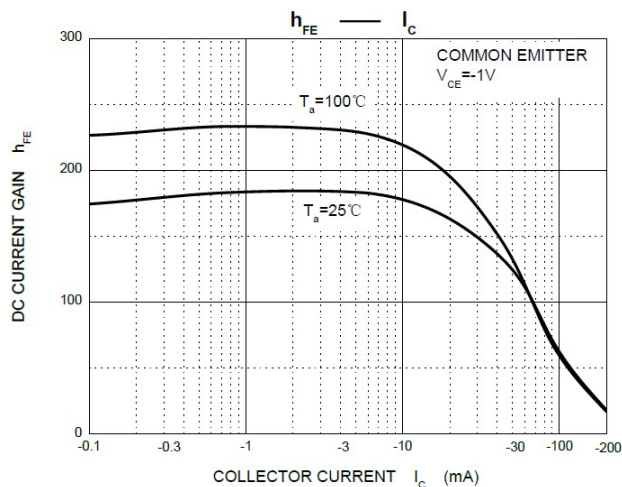
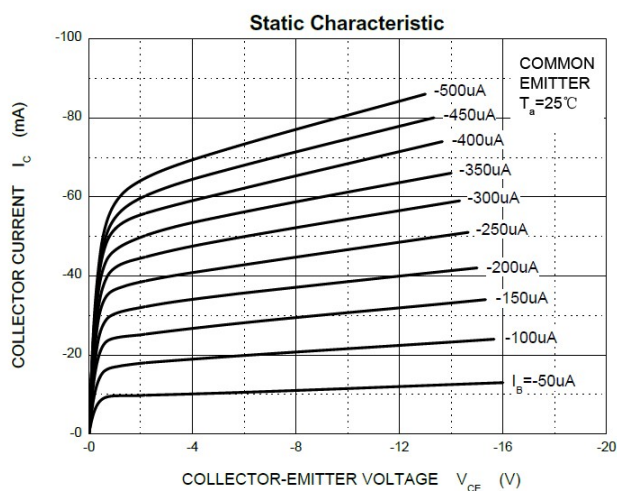
电特性 (TA = 25°C 除非另有规定)

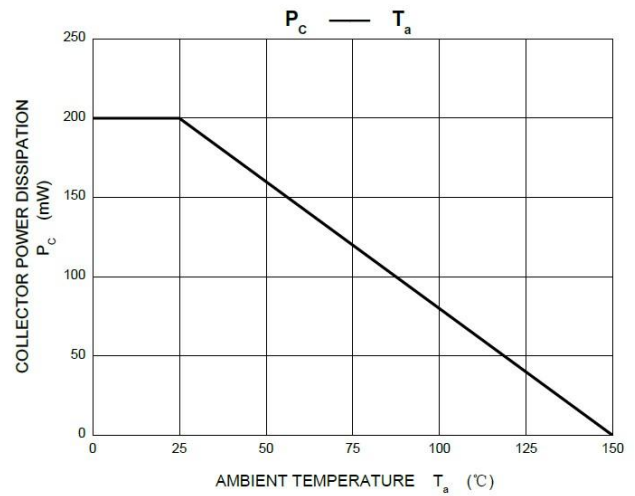
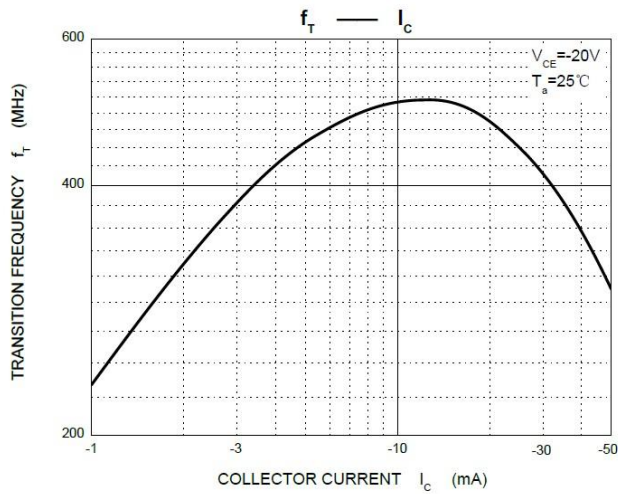
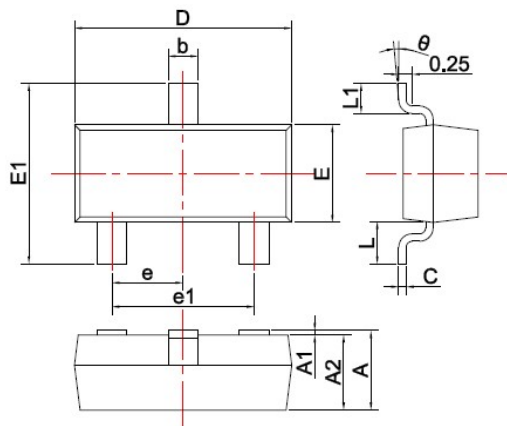
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

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	-40		V
Collector-emitter breakdown voltage	V(BR)CEO	I _C =-1mA, I _B =0	-40		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =-10uA, I _C =0	-5		V
Collector cut-off current	I _C EX	V _{CE} =-30V, V _{EB} (off)=-3V		-100	nA
Collector cut-off current	I _C BO	V _{CB} =-40V, I _E =0		-50	nA
Emitter cut-off current	I _E BO	V _{EB} =-5V, I _C =0		-50	nA
DC current gain	hFE(1)	V _{CE} =-1V, I _C =-10mA	100	300	
	hFE(2)	V _{CE} =-1V, I _C =-50mA	60		
	hFE(3)	V _{CE} =-1V, I _C =-100mA	30		
Collector-emitter saturation voltage	V _{CE(sat)} 1	I _C =-50mA, I _B =-5mA		-0.30	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =-50mA, I _B =-5mA		-0.95	V
Transition frequency	f _T	V _{CE} =-20V, I _C =-10mA, f=100MHz	300		MHz
Delay time	t _d	V _{CC} =-3V, V _{BE} (off)=-0.5V, I _C =-10mA, I _{B1} =-1mA		35	nS
Rise time	t _r	V _{CC} =-3V, V _{BE} (off)=-0.5V, I _C =-10mA, I _{B1} =-1mA		35	nS
Storage time	t _s	V _{CC} =-3V, I _C =-10mA, I _{B1} =I _{B2} =-1mA		225	nS
Fall time	t _f	V _{CC} =-3V, I _C =-10mA, I _{B1} =I _{B2} =-1mA		75	nS

CLASSIFICATION OF hFE(1)

HFE	100-300	
RANK	L	H
RANGE	100-200	200-300

Typical characteristics


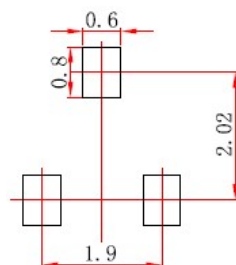

SOT-23 PACKAGE OUTLINE Plastic surface mounted package


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

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