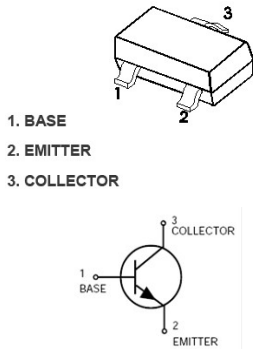


**SOT-23**



**Marking: 1AM**

**特征 Features**

- Power Dissipation of 200mW
- High Stability and High Reliability
- AEC-Q101 qualified

**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 <sub>CBO</sub>	60	V
Collector-Emitter Voltage	V <sub>CEO</sub>	40	V
Emitter -Base Voltage	V <sub>EBO</sub>	6	V
Collector Current-Continuous	I <sub>c</sub>	200	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)

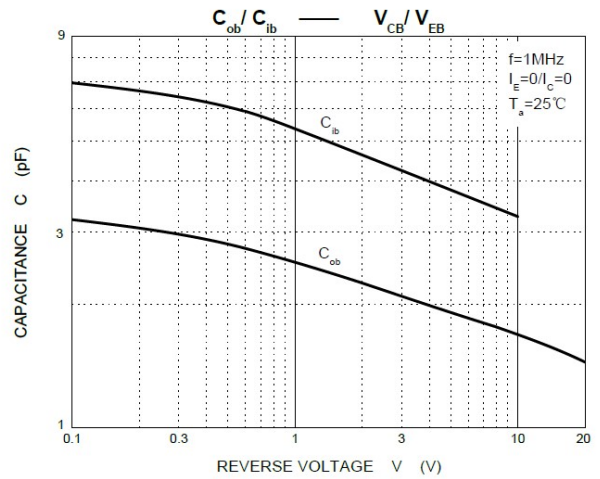
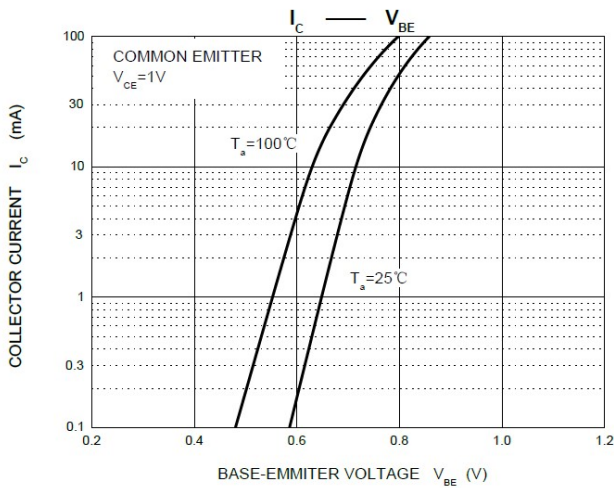
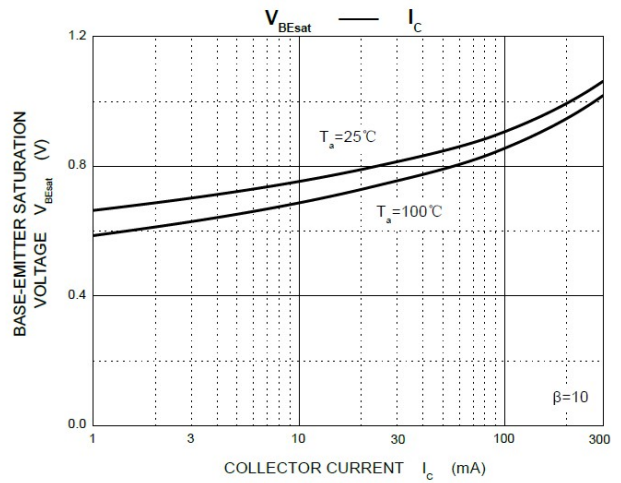
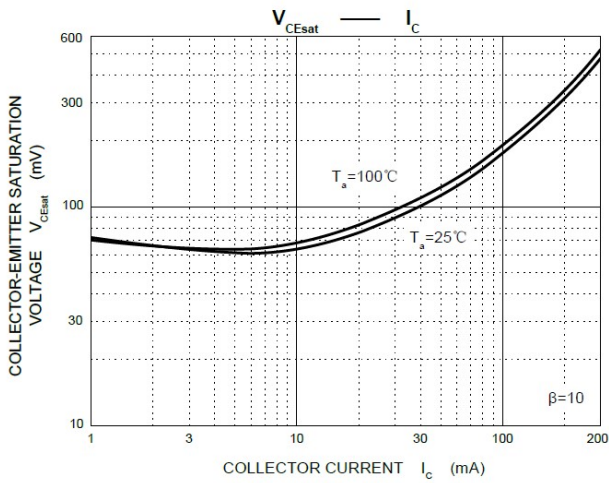
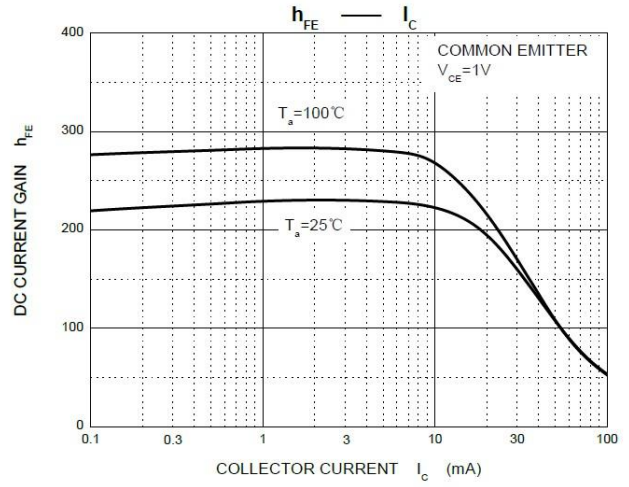
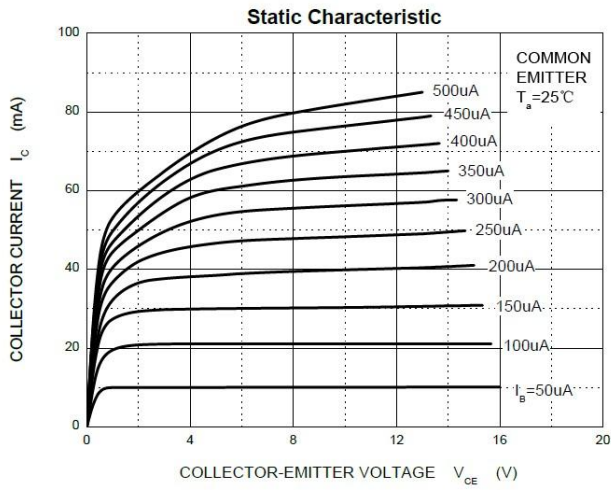
**Electrical Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified.)

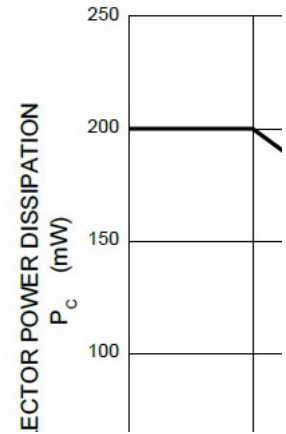
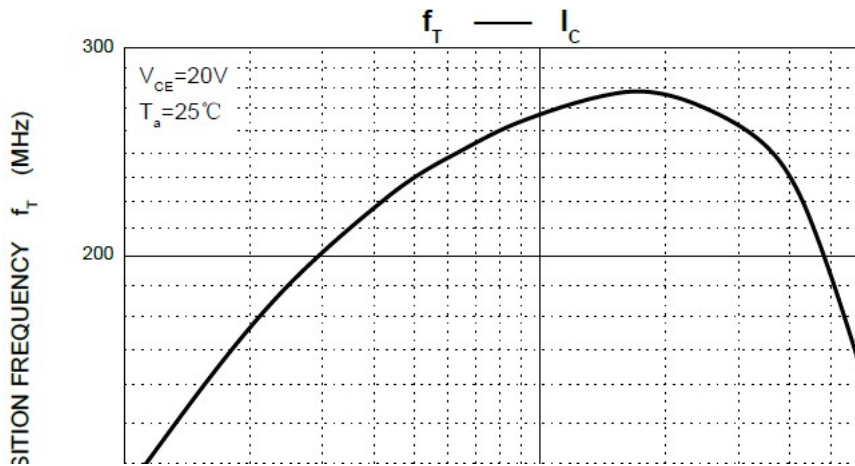
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	IC=10uA, IE=0	60		V
Collector-emitter breakdown voltage	V(BR)CEO	IC=1mA, IB=0	40		V
Emitter-base breakdown voltage	V(BR)EBO	IE=10uA, IC=0	6		V
Collector cut-off current	ICEX	VCE=30V, VEB(off)=3V		50	nA
Collector cut-off current	ICBO	VCB=60V, IE=0		100	nA
Emitter cut-off current	IEBO	VEB=5V, IC=0		100	nA
DC current gain	hFE(1)	VCE=1V, IC=10mA	100	300	
	hFE(2)	VCE=1V, IC=50mA	60		
	hFE(3)	VCE=1V, IC=100mA	30		
Collector-emitter saturation voltage	VCE(sat)	IC=50mA, IB=5mA		0.30	V
Base -emitter saturation voltage	VBE(sat)	IC=50mA, IB=5mA		0.95	V
Transition frequency	f <sub>t</sub>	VCE=20V, IC=10mA, f=100MHz	300		MHz
Delay time	t <sub>d</sub>	VCC=3V, VBE(off)=-0.5V, IC=10mA, IB1=1mA		35	nS
Rise time	t <sub>r</sub>	VCC=3V, VBE(off)=-0.5V, IC=10mA, IB1=1mA		35	nS
Storage time	t <sub>s</sub>	VCC=3V, IC=10mA, IB1=IB2=1mA		200	nS
Fall time	t <sub>f</sub>	VCC=3V, IC=10mA, IB1=IB2=1mA		50	nS

**CLASSIFICATION OF hFE(1)**

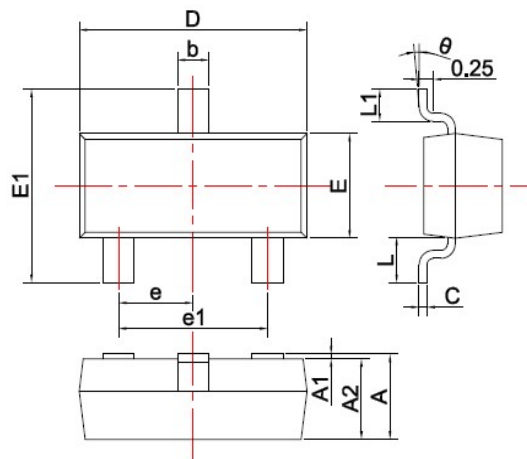
HFE	100-300	
RANK	L	H
RANGE	100-200	200-300

Typical characteristics





SOT-23 PACKAGE OUTLINE Plastic surface mounted package

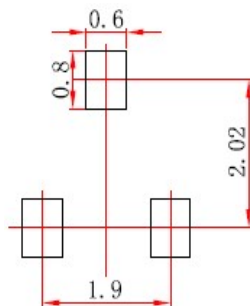


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

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

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