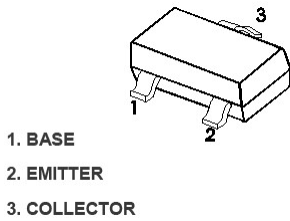


SOT-23

SOT-23 Plastic-Encapsulate Transistors



Marking: 2A

特征 Features

- 与 MMBT3904 配对; Complementary to MMBT3904
- 最大功率耗散 200mW; Power Dissipation of 200mW
- 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}	-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

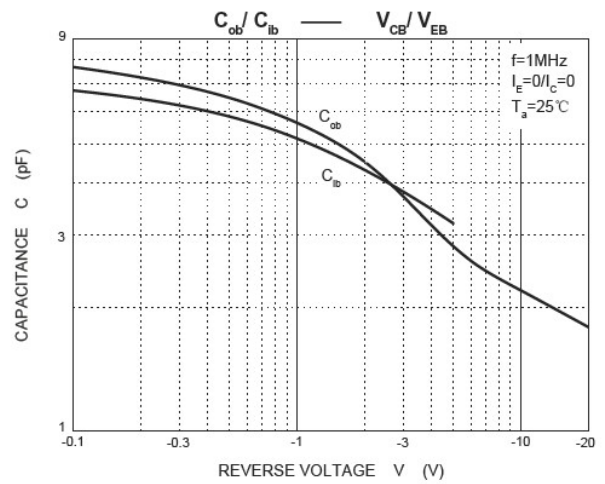
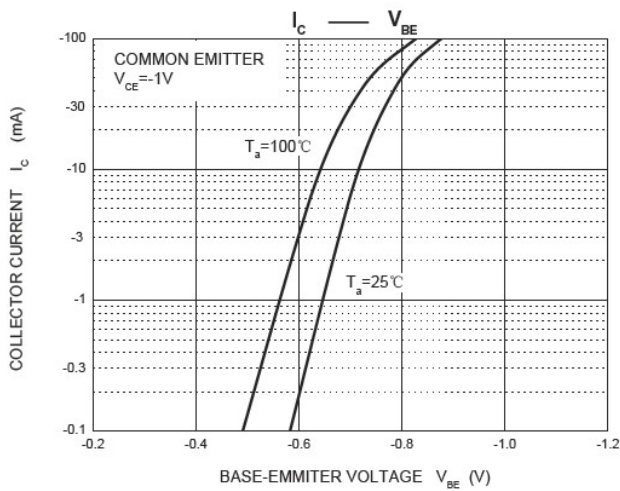
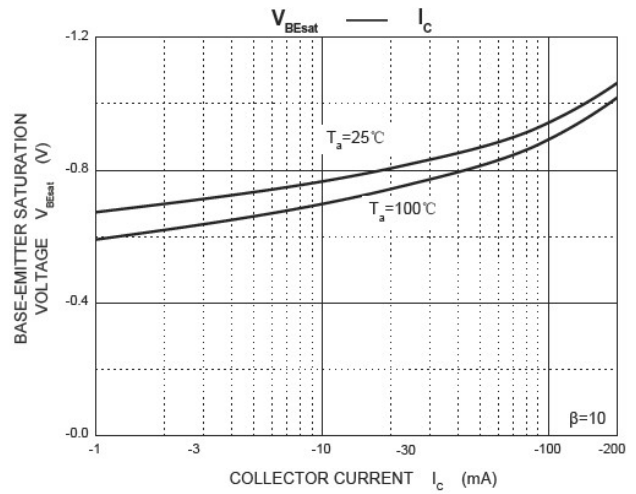
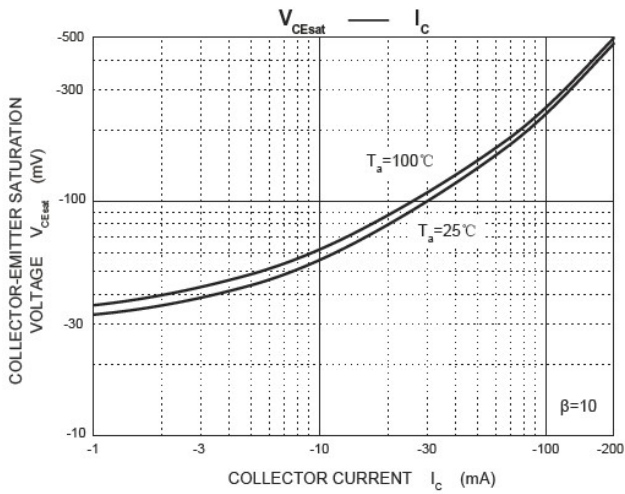
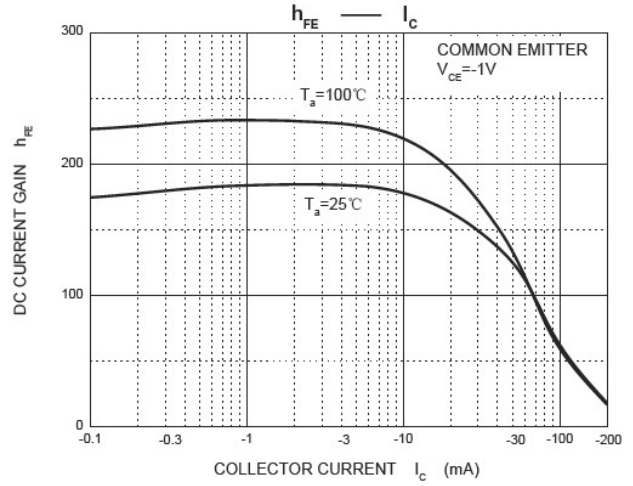
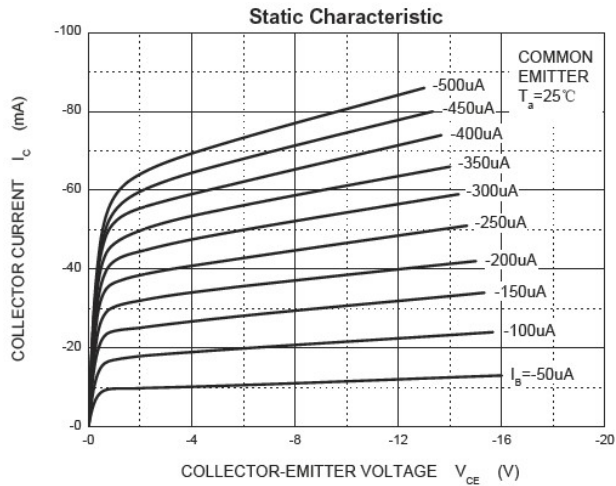
电特性 (TA = 25°C 除非另有规定)

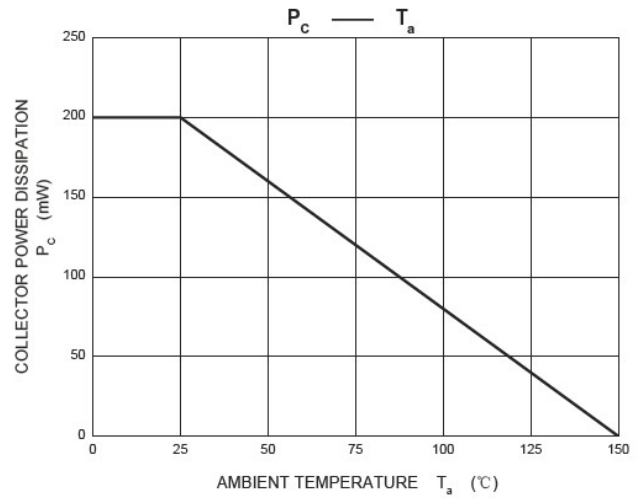
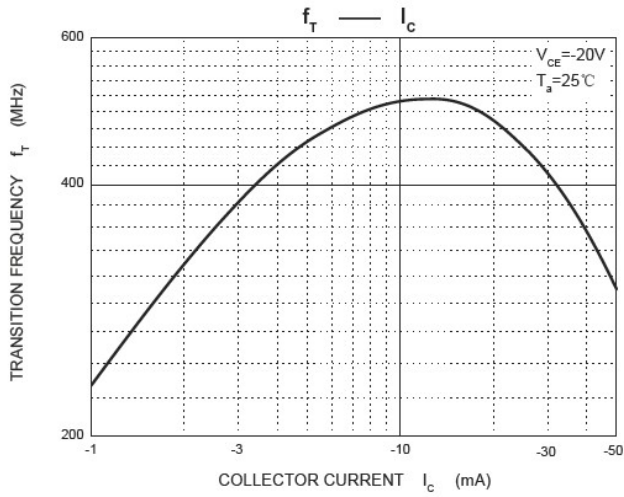
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

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	IC=-10uA, IE=0	-40		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	-5		V
Collector cut-off current	ICEX	VCE=-30V, VEB(off)=-3V		-100	nA
Collector cut-off current	ICBO	VCB=-40V, IE=0		-50	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)1	IC=-50mA, IB=-5mA		-0.30	V
Base -emitter saturation voltage	VBE(sat)	IC=-50mA, IB=-5mA		-0.95	V
Transition frequency	f _T	VCE=-20V, IC=-10mA, f=100MHz	300		MHz
Delay time	t _d	VCC=-3V, VBE(off)=-0.5V, IC=-10mA, IB1=-1mA		35	nS
Rise time	t _r	VCC=-3V, VBE(off)=-0.5V, IC=-10mA, IB1=-1mA		35	nS
Storage time	t _s	VCC=-3V, IC=-10mA, IB1=IB2=-1mA		225	nS
Fall time	t _f	VCC=-3V, IC=-10mA, IB1=IB2=-1mA		75	nS

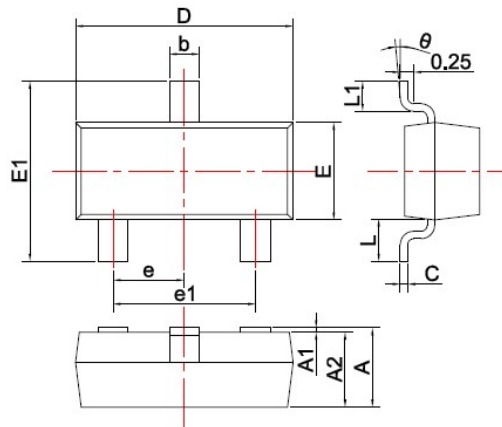
CLASSIFICATION OF hFE(1)

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





SOT-23 PACKAGE OUTLINE Plastic surface mounted package

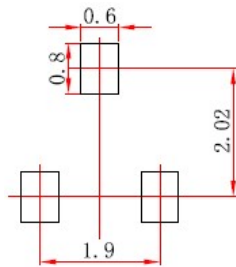


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

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.