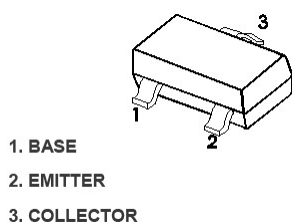


SOT-23



Marking: 2F

特征 Features

- 最大功率耗散 250mW; Power Dissipation of 250mW
- 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}	-60	V
Collector-Emitter Voltage	V _{CEO}	-60	V
Emitter -Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _C	-600	mA
Collector Power Dissipation	P _C	250	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-+150	°C
Thermal resistance From junction to ambient	R _{θJA}	500	°C/W

电特性 (TA = 25°C 除非另有规定)

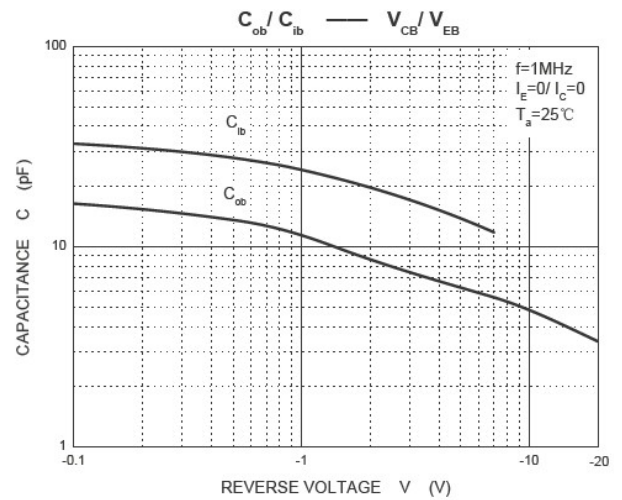
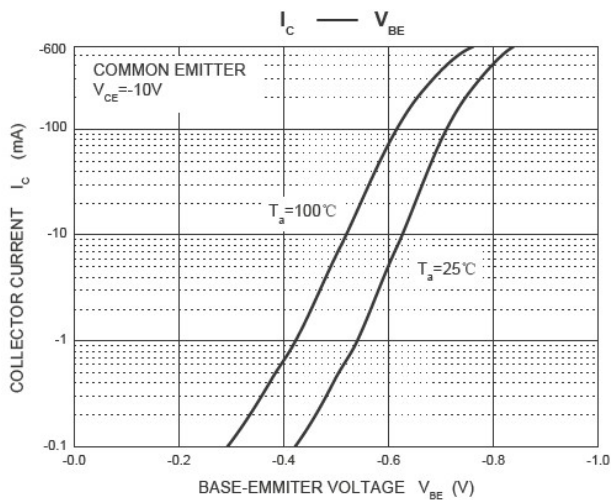
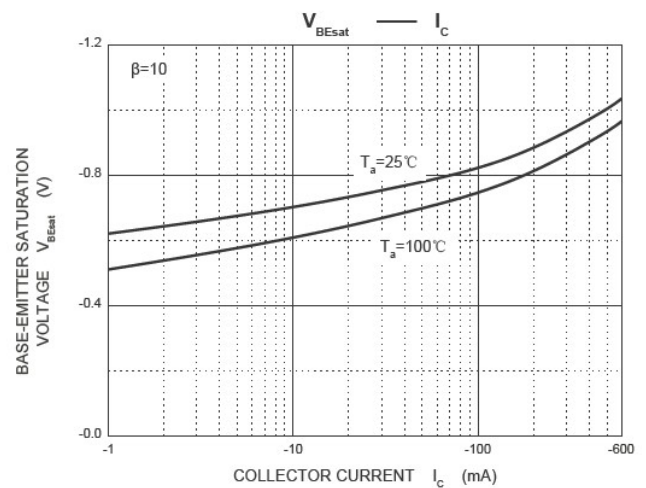
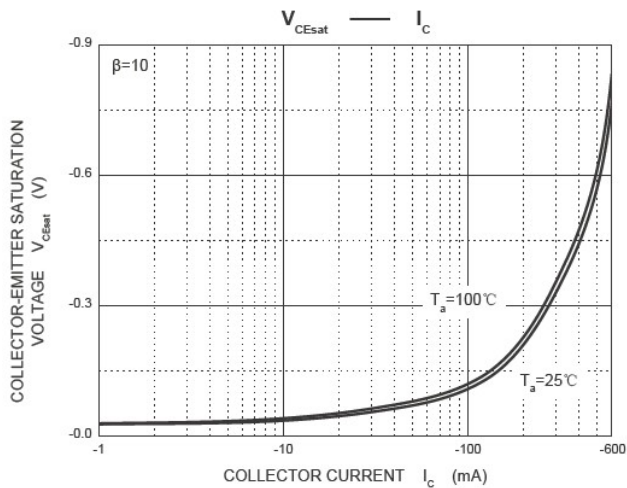
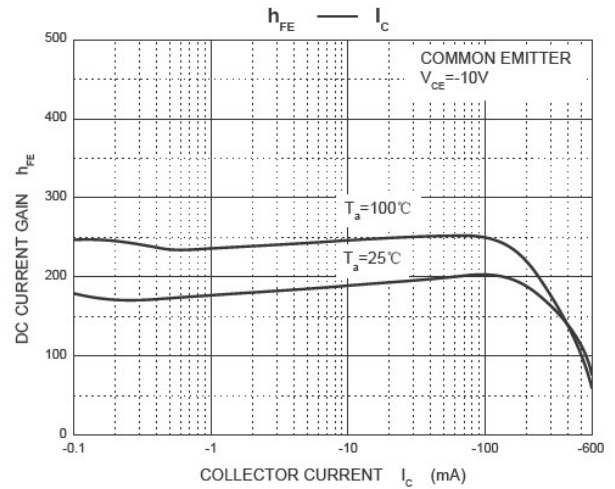
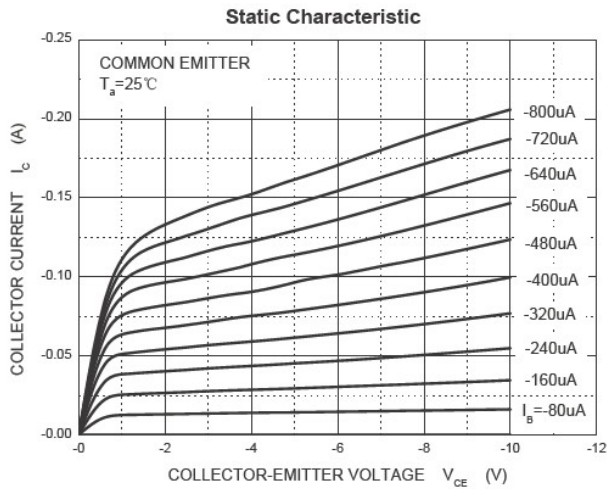
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

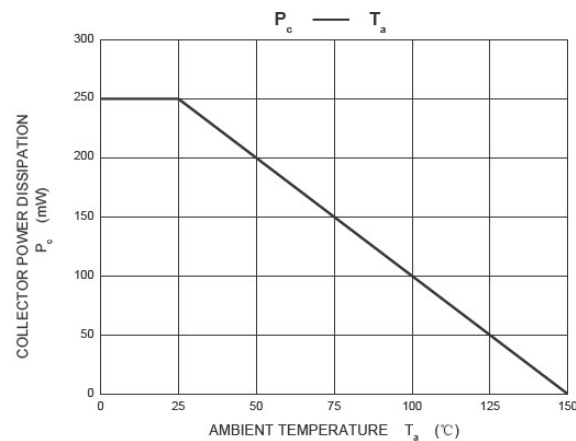
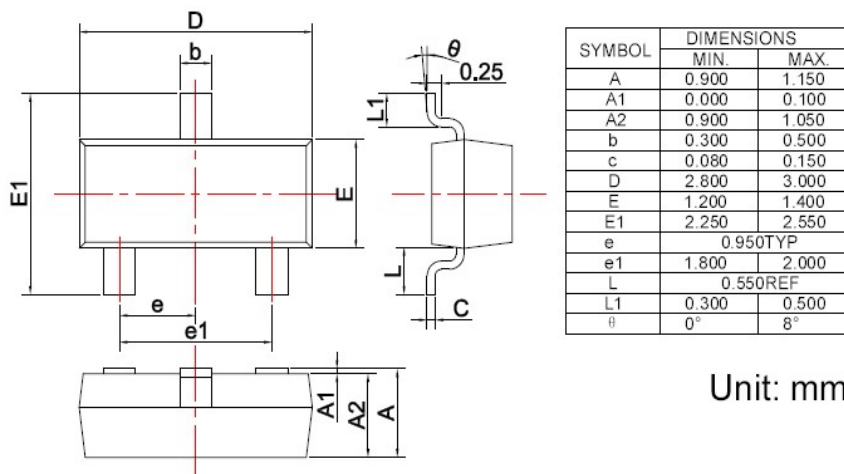
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	IC=-100uA, IE=0	-60		V
Collector-emitter breakdown voltage	V(BR)CEO *	IC=-1mA, IB=0	-60		V
Emitter-base breakdown voltage	V(BR)EBO	IE=-10uA, IC=0	-5		V
Collector cut-off current	ICBO	VCE=-50V, IE=0		-20	nA
Emitter cut-off current	IEBO	VEB=-3V, IC=0		-10	nA
Collector cut-off current	ICEX	VCE=-30V, VBE(off)=-0.5V		-50	nA
DC current gain	hFE(1) *	VCE=-10V, IC=-150mA	100	300	
	hFE(2) *	VCE=-10V, IC=-0.1mA	75		
	hFE(3) *	VCE=-10V, IC=-1mA	100		
	hFE(4) *	VCE=-10V, IC=-10mA	100		
	hFE(5) *	VCE=-10V, IC=-500mA	50		
Collector-emitter saturation voltage	VCE(sat)1 *	IC=-150mA, IB=-15mA		-0.4	V
	VCE(sat)2 *	IC=-500mA, IB=-50mA		-1.6	V
Base -emitter saturation voltage	VBE(sat)1 *	IC=-150mA, IB=-15mA		-1.30	V
	VBE(sat)2 *	IC=-500mA, IB=-50mA		-2.60	V
Transition frequency	f _T	VCE=-20V, IC=-50mA, f=100MHz	200		MHz
Delay time	t _d	VCE=-30V, IC=-150mA, IB1=-15mA		10	nS
Rise time	t _r			25	nS
Storage time	t _s	VCE=-6V, IC=-150mA, IB1=IB2=-15mA		225	nS
Fall time	t _f			60	nS

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

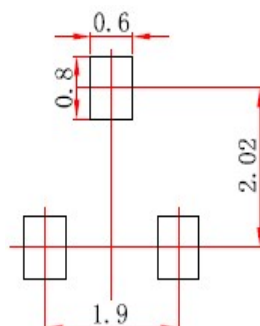
CLASSIFICATION OF hFE(1)

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

Typical characteristics



SOT-23 PACKAGE OUTLINE Plastic surface mounted package

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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