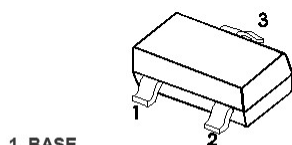


SOT-23


1. BASE

2. EMITTER

3. COLLECTOR

Marking: 493
特征 Features

- Power Dissipation of 250mW
- High Stability and High Reliability

机械数据 Mechanical Data

- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- 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.)

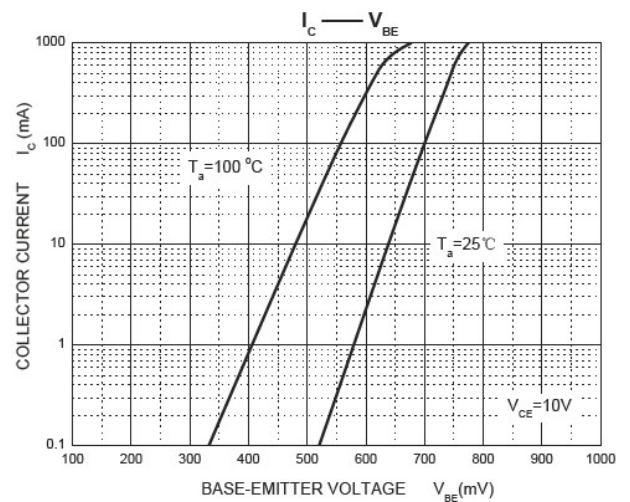
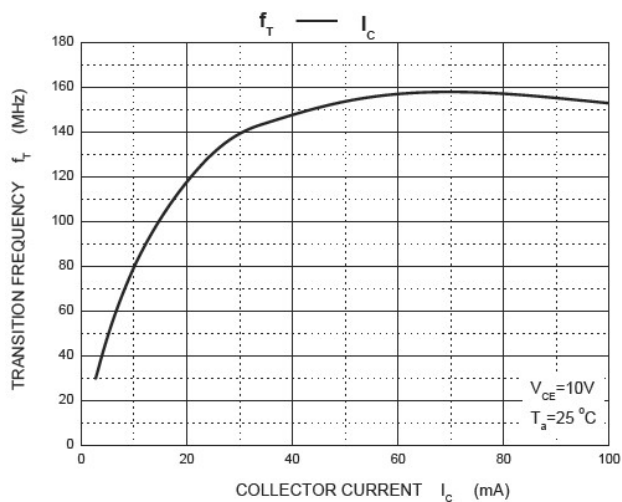
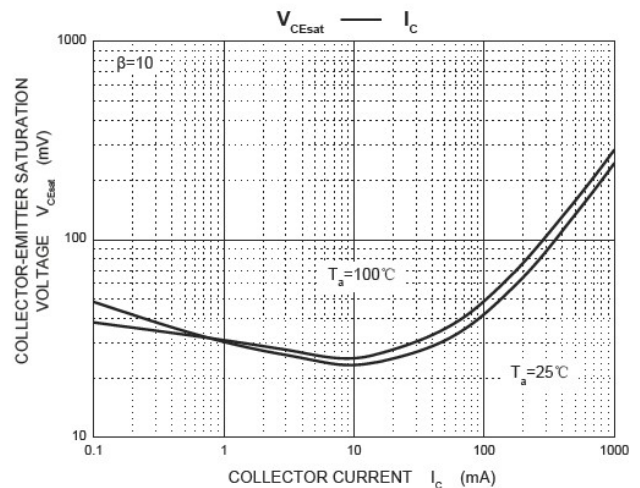
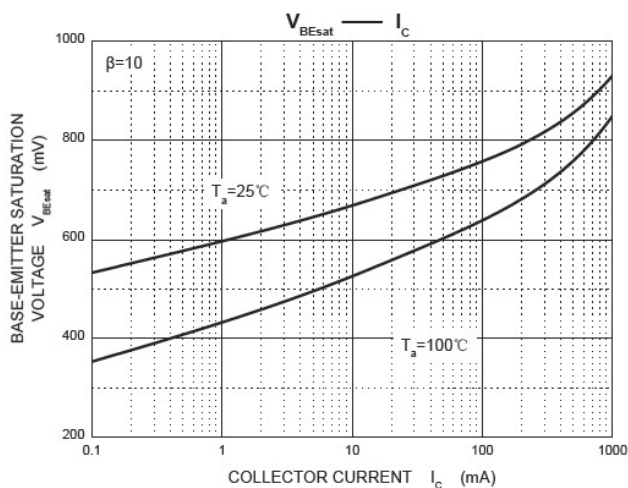
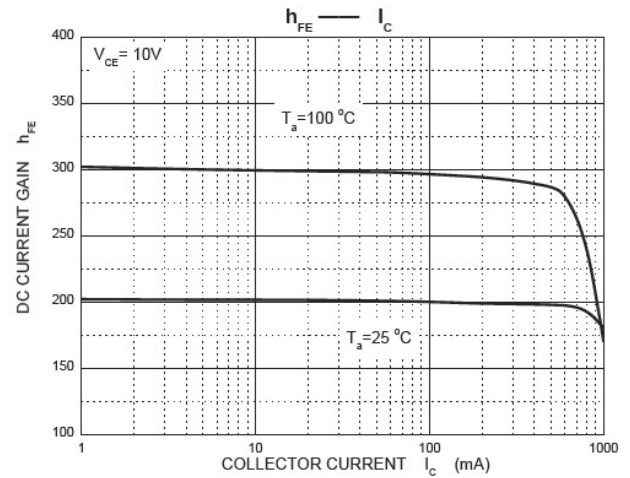
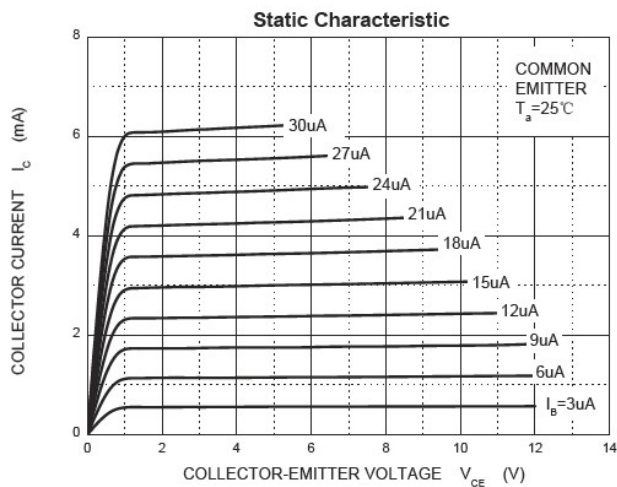
参数 Parameters	符号 Symbol	数值 Value	单位 Unit
Collector-Base Voltage	V _{CBO}	120	V
Collector-Emitter Voltage	V _{CEO}	100	V
Emitter -Base Voltage	V _{EBO}	5	V
Collector Current-Continuous	I _C	1.0	A
Collector Power Dissipation	P _C	250	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-+150	°C
Thermal resistance From junction to ambient	R _{θJA}	500	°C/W

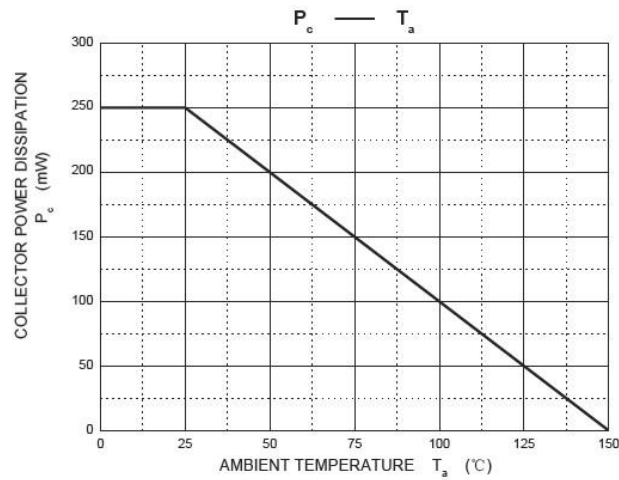
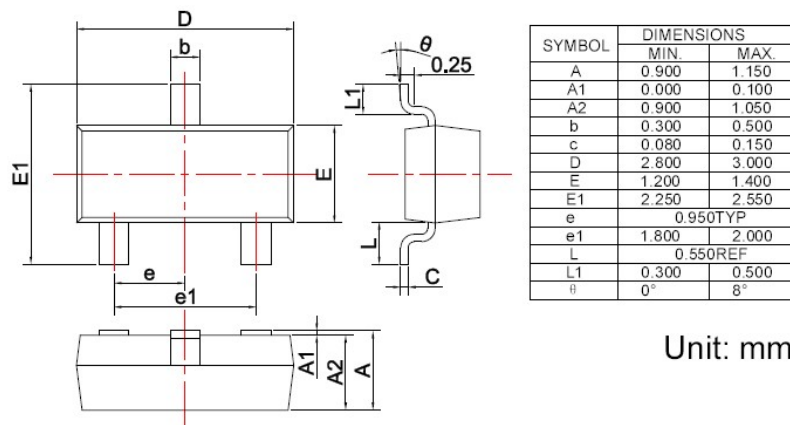
电特性 (TA = 25°C 除非另有规定)

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

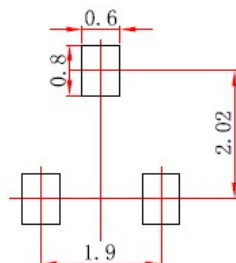
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100uA, I _E =0	120		V
Collector-emitter breakdown voltage	V _{(BR)CEO} *	I _C =10mA, I _B =0	100		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100uA, I _C =0	5		V
Collector cut-off current	I _{CBO}	V _{CB} =100V, I _E =0		100	nA
Collector cut-off current	I _{CES}	V _{CES} =100V, I _E =0		100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0		100	nA
DC current gain	h _{FE} (1)	V _{CE} =10V, I _C =1mA	100		
	h _{FE} (2)*	V _{CE} =10V, I _C =250mA	100	300	
	h _{FE} (3)*	V _{CE} =10V, I _C =500mA	60		
	h _{FE} (4)*	V _{CE} =10V, I _C =1000mA	20		
Collector-emitter saturation voltage	V _{CE(sat)} *	I _C =500mA, I _B =50mA		0.30	V
		I _C =1000mA, I _B =100mA		0.60	V
Base -emitter saturation voltage	V _{BE(sat)} *	I _C =1000mA, I _B =100mA		1.15	V
Base -emitter voltage	V _{BE} *	V _{CE} =10V, I _C =1000mA		1.00	V
Transition frequency	f _T	V _{CE} =10V, I _C =50mA, f=100MHz	150		MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, f=1MHz		10	pF

* Measured under pulsed conditions, Pulse width=300us, Duty cycle≤2%

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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