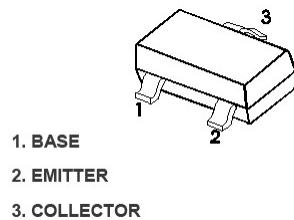


SOT-23**SOT-23 贴片塑封三极管
SOT-23 Plastic-Encapsulate Transistors****Marking: 2D****特征 Features**

- 与 MMBTA42 配对; Complementary to MMBTA42
- 最大功率耗散 300mW; Power Dissipation of 300mW
- 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.)

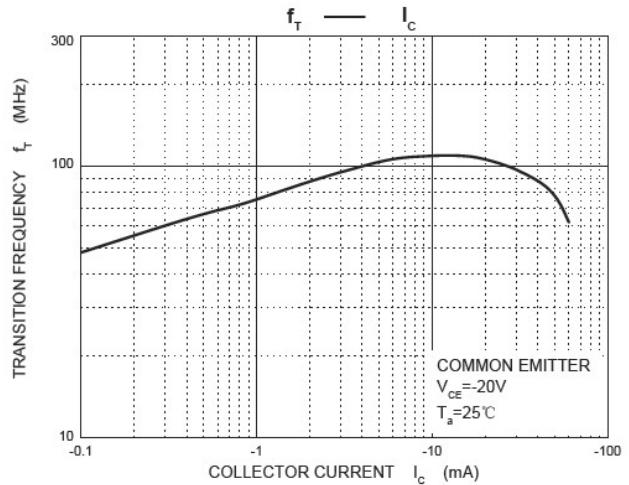
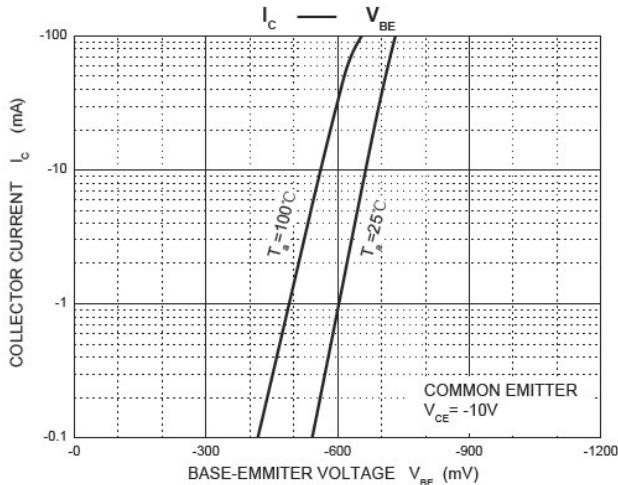
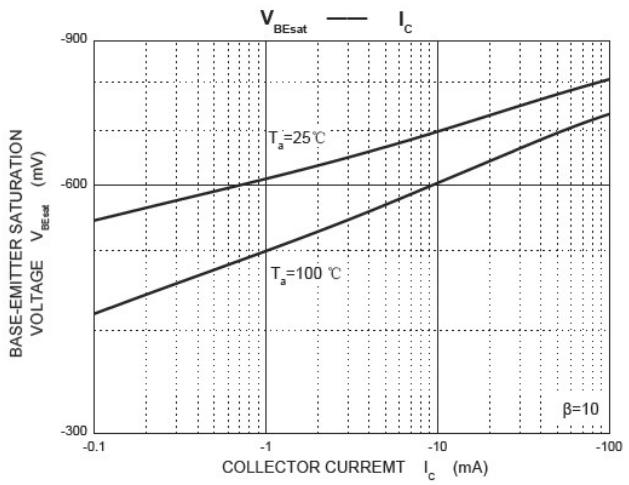
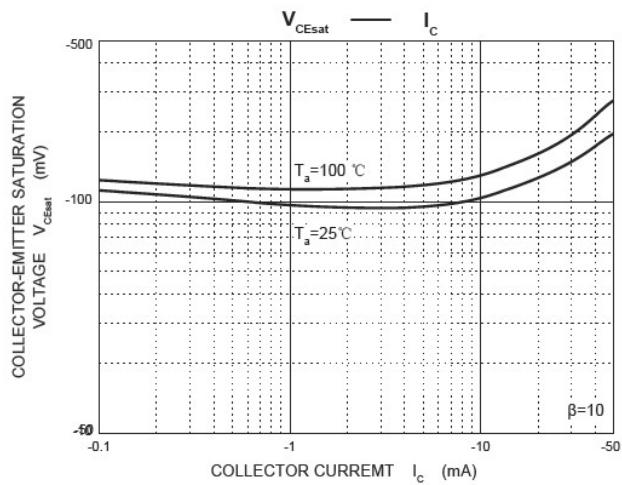
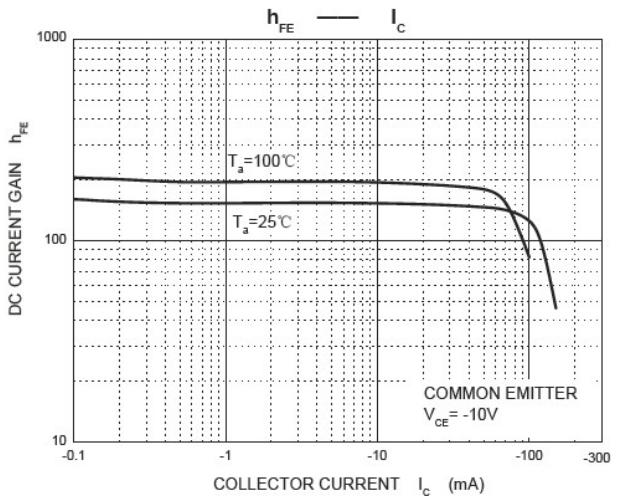
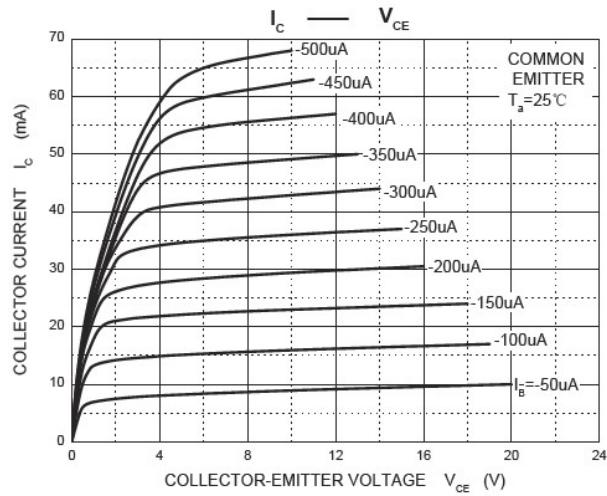
参数 Parameters	符号 Symbol	数值 Value	单位 Unit
Collector-Base Voltage	V _{CBO}	-300	V
Collector-Emitter Voltage	V _{CEO}	-300	V
Emitter -Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _c	-200	mA
Collector Power Dissipation	P _c	300	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55~+150	°C
Thermal resistance From junction to ambient	R _{θJA}	417	°C/W

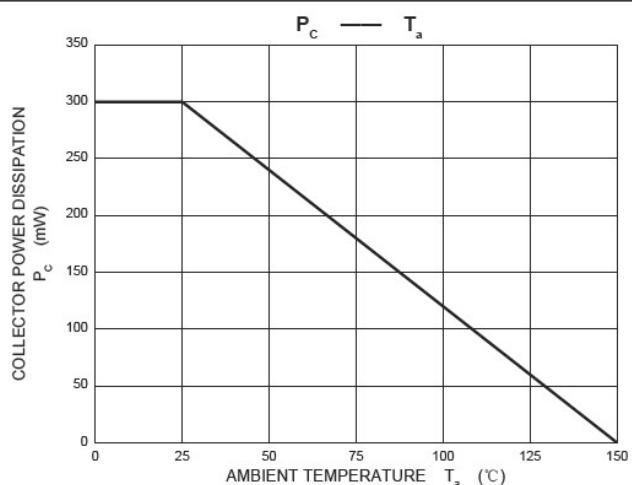
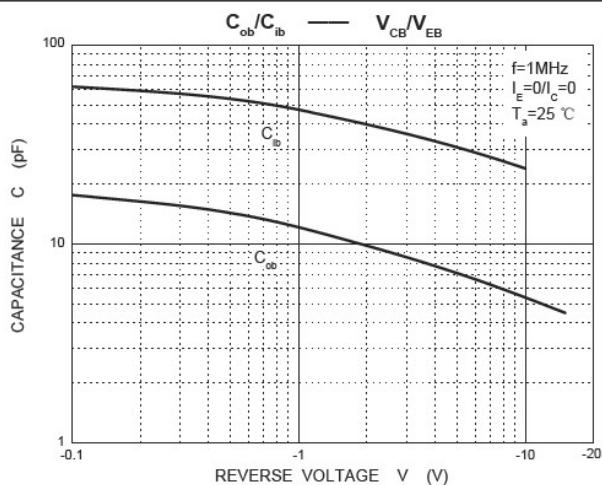
电特性 (TA = 25°C 除非另有规定)**Electrical Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified).

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 =-100μA, I _e =0	-300		V
Collector-emitter breakdown voltage	V _{(BR)CEO} *	I _c =-1mA, I _b =0	-300		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _e =-100μA, I _c =0	-5		V
Collector cut-off current	I _{cbo}	V _{cb} =-20V, I _e =0		-250	nA
Emitter cut-off current	I _{ebo}	V _{eb} =-5V, I _c =0		-100	nA
DC current gain	h _{FE} (1) *	V _{ce} =-10V, I _c =-1mA	60		
	h _{FE} (2) *	V _{ce} =-10V, I _c =-10mA	100	200	
	h _{FE} (3) *	V _{ce} =-10V, I _c =-30mA	60		
Collector-emitter saturation voltage	V _{ce(sat)} *	I _c =-20mA, I _b =-2mA		-0.2	V
Base -emitter saturation voltage	V _{be(sat)} *	I _c =-20mA, I _b =-2mA		-0.9	V
Transition frequency	f _t	V _{ce} =-20V, I _c =10mA, f=30MHz	50		MHz

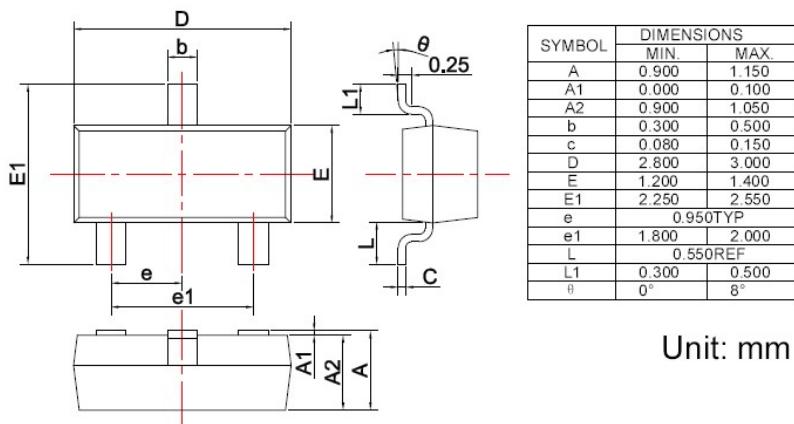
*Pulse test: pulse width≤300us, duty cycle≤2.0%

Typical characteristics



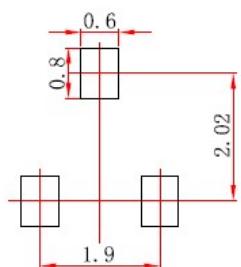


SOT-23 PACKAGE OUTLINE Plastic surface mounted package



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.