

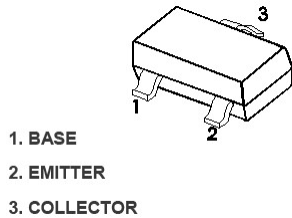
S9012 TRANSISTOR(PNP)

Rev.1.0

SOT-23

SOT-23 贴片塑封三极管

SOT-23 Plastic-Encapsulate Transistors



Marking: 2T1

特征 Features

- 与 S9013 配对; Complementary to S9013
- 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}	-40	V
Collector-Emitter Voltage	V _{CEO}	-25	V
Emitter -Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _C	-500	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}	416	°C/W

电特性 (TA = 25°C 除非另有规定)

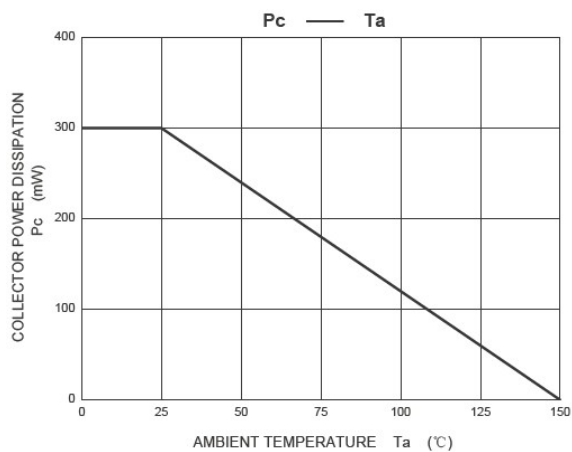
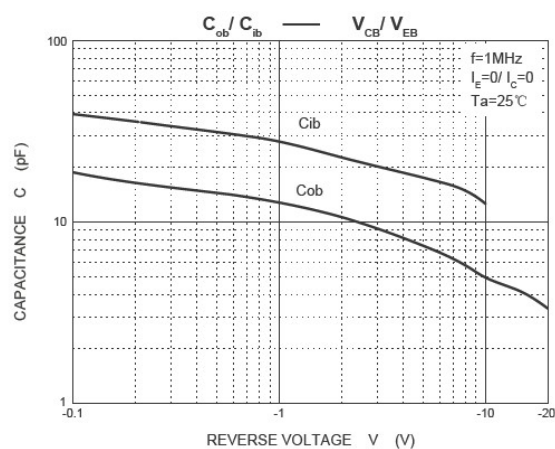
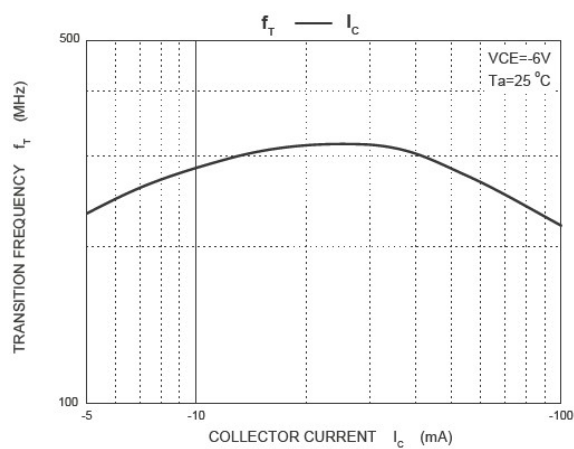
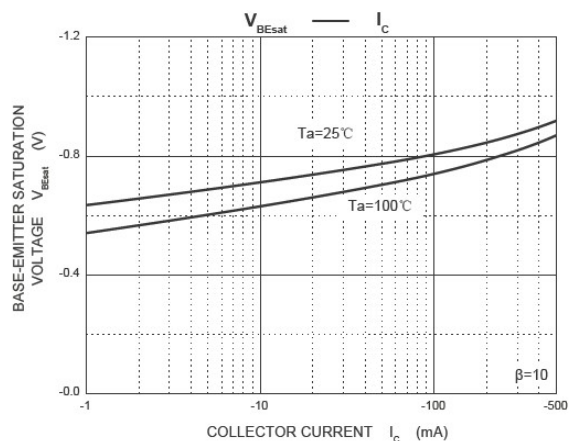
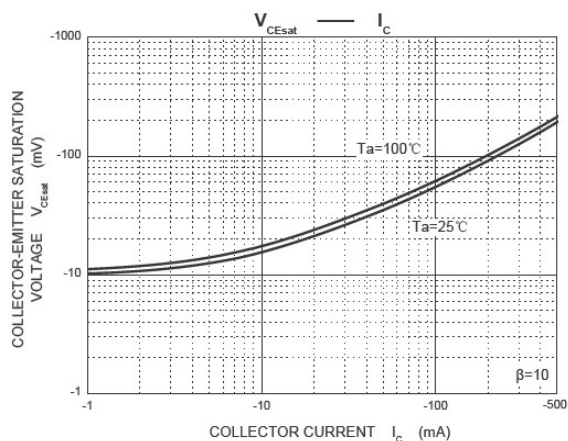
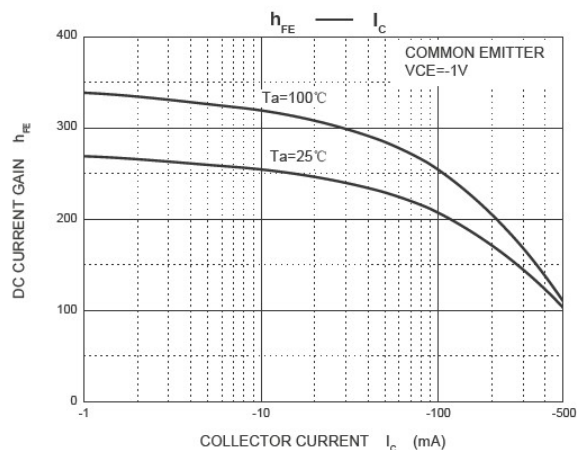
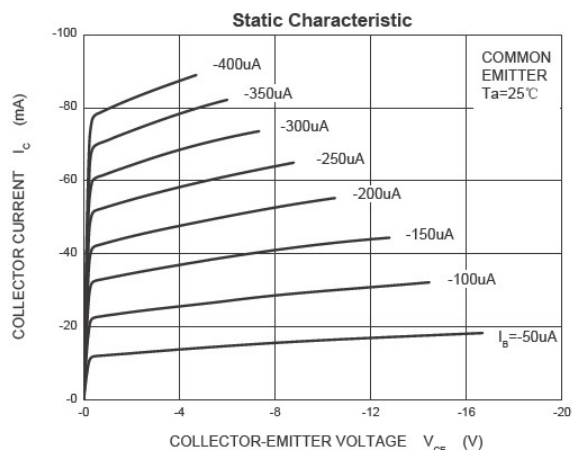
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

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	-40		V
Collector-emitter breakdown voltage	V(BR)CEO	I _C =-1mA, I _B =0	-25		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =-100uA, I _C =0	-5		V
Collector cut-off current	I _{CEO}	V _{CE} =-20V, I _B =0		-100	nA
Collector cut-off current	I _{CBO}	V _{CB} =-40V, I _E =0		-100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0		-100	nA
DC current gain	h _{FE}	V _{CE} =-1V, I _C =-50mA	120	400	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-500mA, I _B =-50mA		-0.60	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =-500mA, I _B =-50mA		-1.20	V
Transition frequency	f _T	V _{CE} =-6V, I _C =-20mA, f=30MHz	150		MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz		5	pF

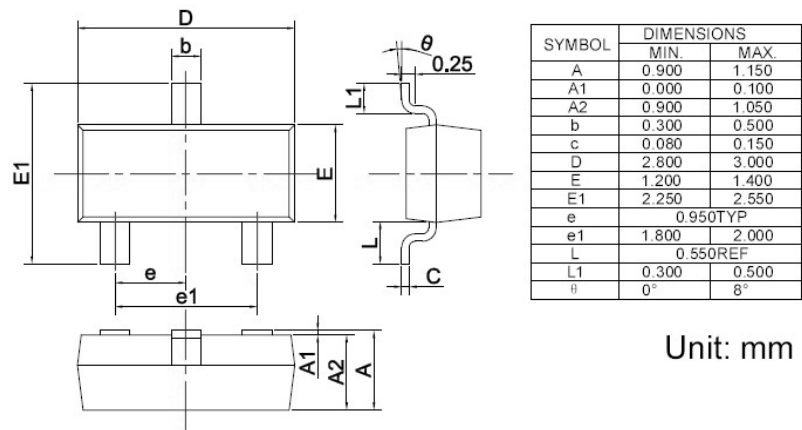
CLASSIFICATION OF h_{FE}(1)

RANK	L	H	J
RANGE	120-200	200-350	300-400

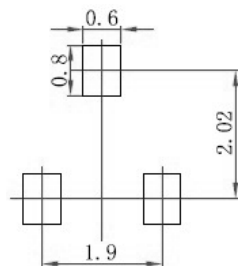
Typical characteristics



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