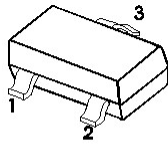


SOT-23

SOT-23 贴片塑封三极管
SOT-23 Plastic-Encapsulate Transistors



1. BASE
2. EMITTER
3. COLLECTOR

Marking: J3

特征 Features

- 与 S9012 配对; Complementary to S9012
- 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)

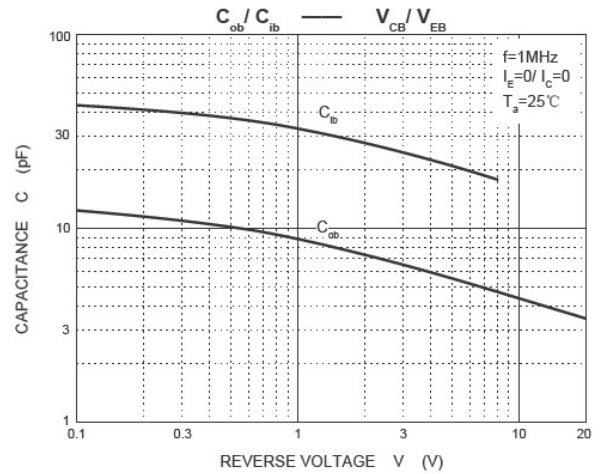
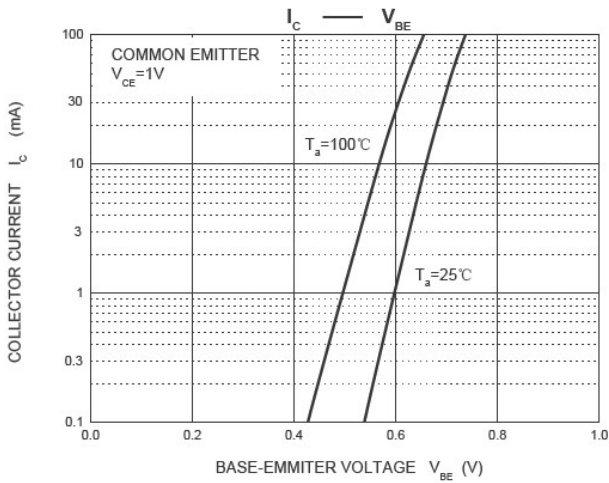
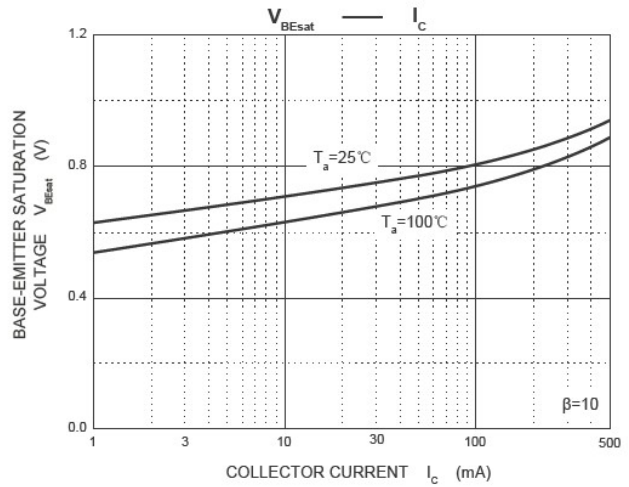
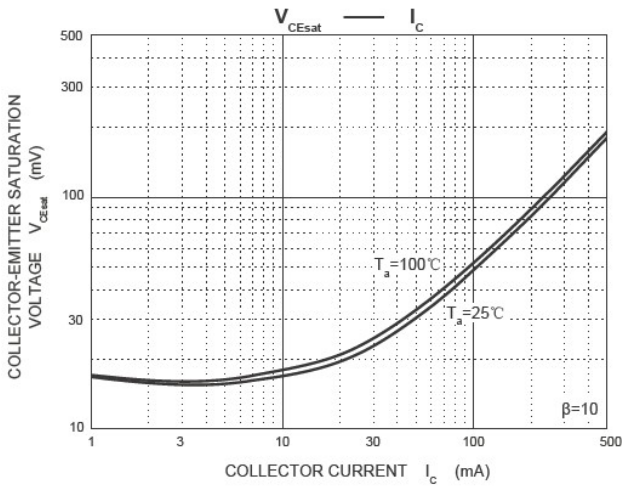
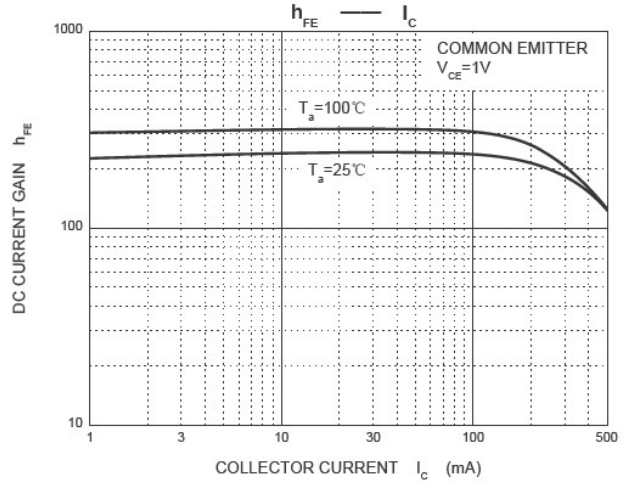
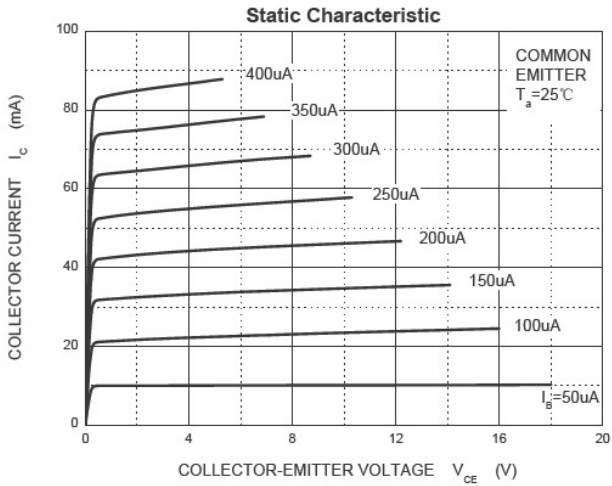
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

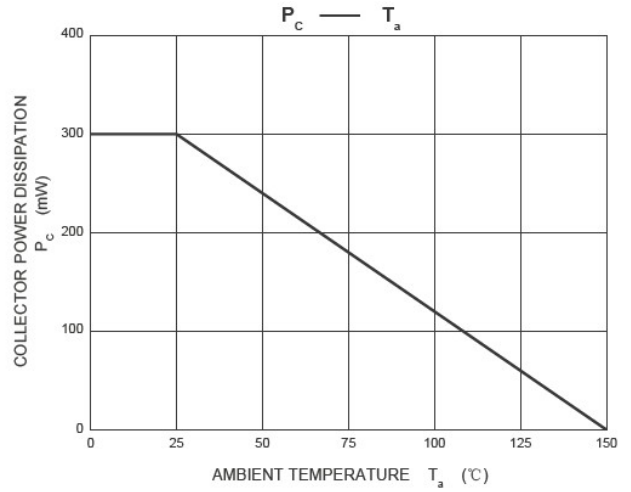
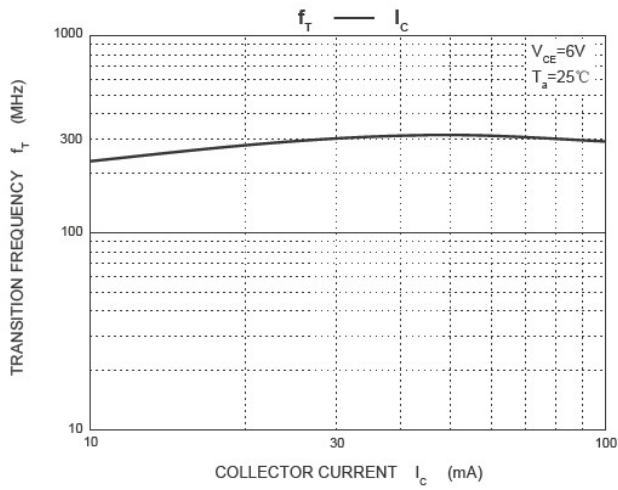
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	I _C =100uA, I _E =0	40		V
Collector-emitter breakdown voltage	V(BR)CEO	I _C =1mA, I _B =0	25		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =100uA, I _C =0	5		V
Collector cut-off current	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} (1)	V _{CE} =1V, I _C =50mA	120	400	
	h _{FE} (2)	V _{CE} =1V, I _C =500mA	40		
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
Base -emitter voltage	V _{BE}	V _{CB} =1V, I _C =10mA		0.70	V
Transition frequency	f _T	V _{CE} =6V, I _C =20mA, f=30MHz	150		MHz
Collector output capacitance	C _{ob}	V _{CB} =6V, I _E =0, f=1MHz		8	pF

CLASSIFICATION OF h_{FE}(1)

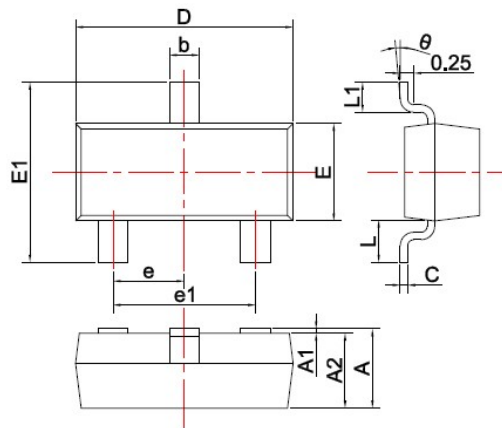
RANK	L	H	J
RANGE	120-200	200-350	300-400

Typical characteristics





SOT-23 PACKAGE OUTLINE Plastic surface mounted package

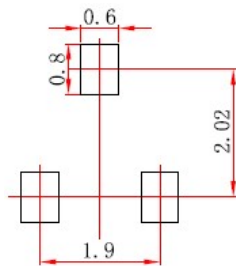


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

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: $\pm 0.05mm$.
 3. The pad layout is for reference purposes only.