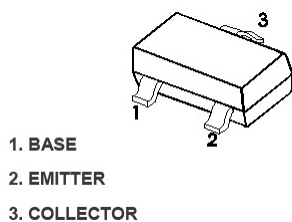


SOT-23

Marking: 491
特征 Features

- Low equivalent on-resistance
- 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.)

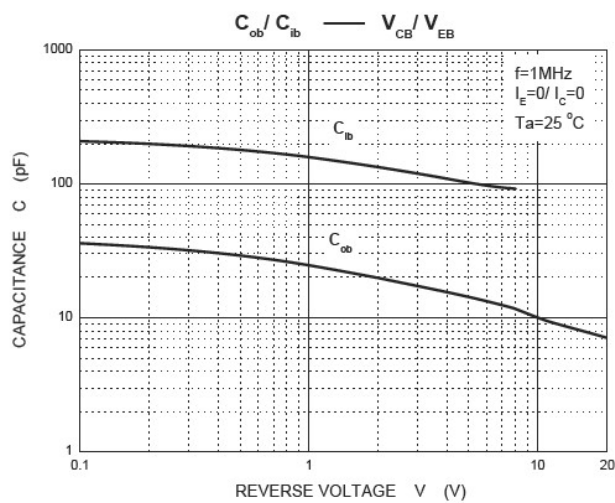
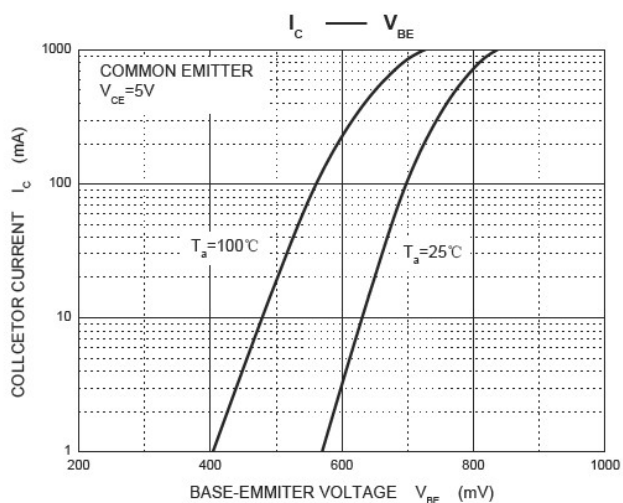
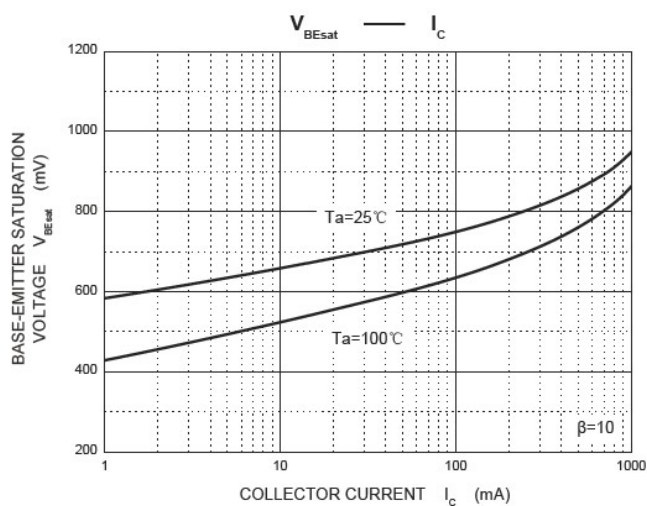
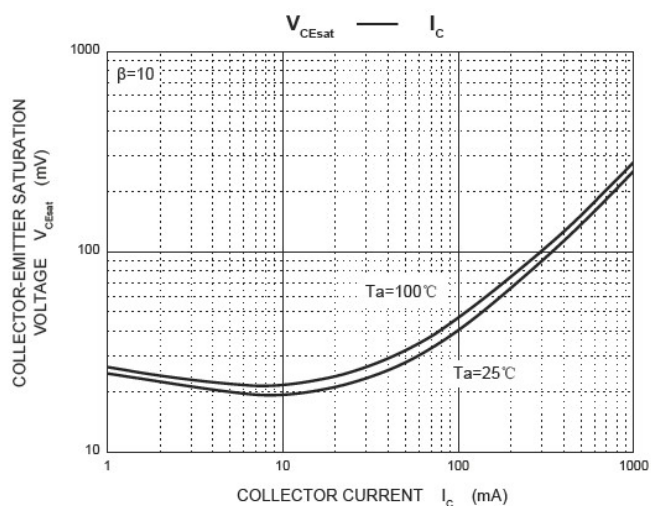
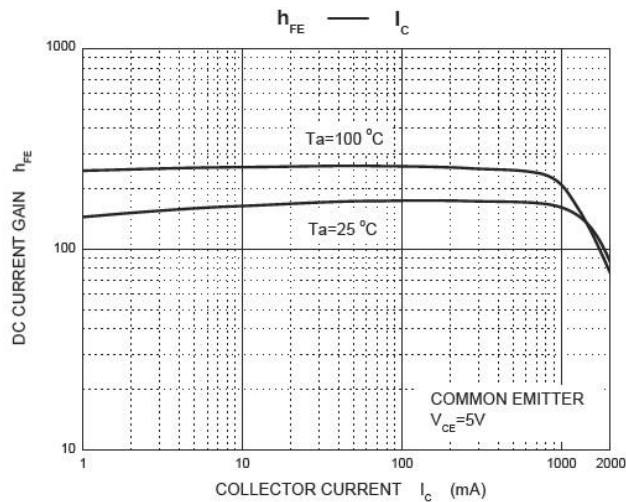
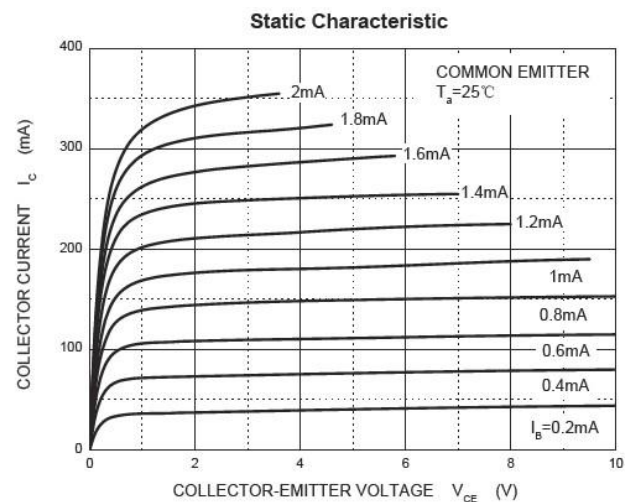
参数 Parameters	符号 Symbol	数值 Value	单位 Unit
Collector-Base Voltage	V _{CBO}	80	V
Collector-Emitter Voltage	V _{CEO}	60	V
Emitter -Base Voltage	V _{EBO}	5	V
Collector Current-Continuous	I _C	1.0	A
Peak Pulse Current	I _{CM}	2.0	A
Collector Power Dissipation	P _C	250	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-+150	°C
Thermal resistance From junction to ambient	R _{θJA}	500	°C/W

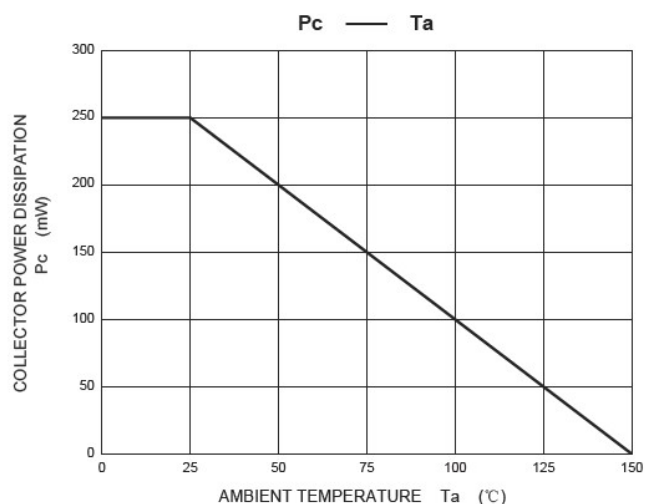
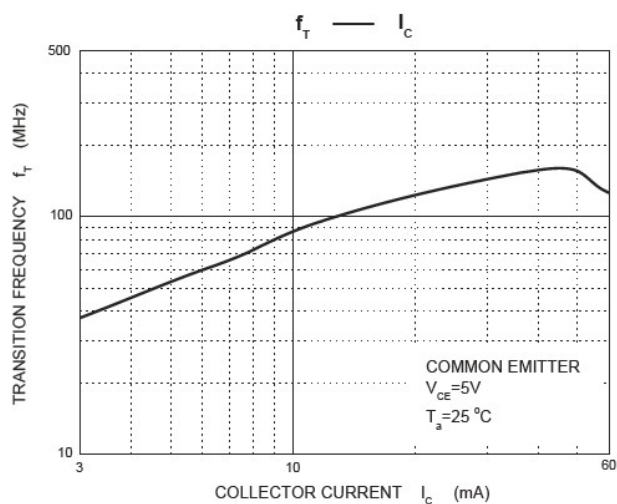
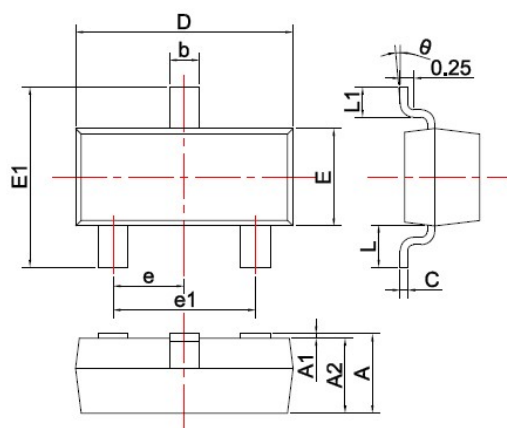
电特性 (TA = 25°C 除非另有规定)

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	80		V
Collector-emitter breakdown voltage	V(BR)CEO*	I _C =10mA, I _B =0	60		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =100uA, I _C =0	5		V
Collector cut-off current	I _{CBO}	V _{CB} =60V, I _E =0		100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0		100	nA
DC current gain	hFE(1)	V _{CE} =5V, I _C =1mA	100		
	hFE(2)*	V _{CE} =5V, I _C =500mA	100	300	
	hFE(3)*	V _{CE} =5V, I _C =1000mA	80		
	hFE(4)*	V _{CE} =5V, I _C =2000mA	30		
Collector-emitter saturation voltage	V _{CE(sat)} *	I _C =500mA, I _B =50mA		0.25	V
		I _C =1000mA, I _B =100mA		0.50	V
Base -emitter saturation voltage	V _{BE(sat)} *	I _C =1000mA, I _B =100mA		1.10	V
Base -emitter voltage	V _{BE} *	V _{CE} =5V, 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


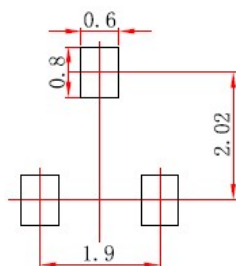

SOT-23 PACKAGE OUTLINE Plastic surface mounted package


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.

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