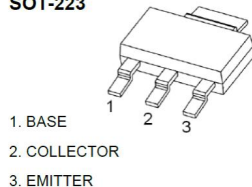


SOT-223
SOT-223

Marking: ZT4403
特征 Features

- High current (max. 600mA)
- Low voltage (max. 40V)
- Switching and linear amplification

机械数据 Mechanical Data

- SOT-223 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)

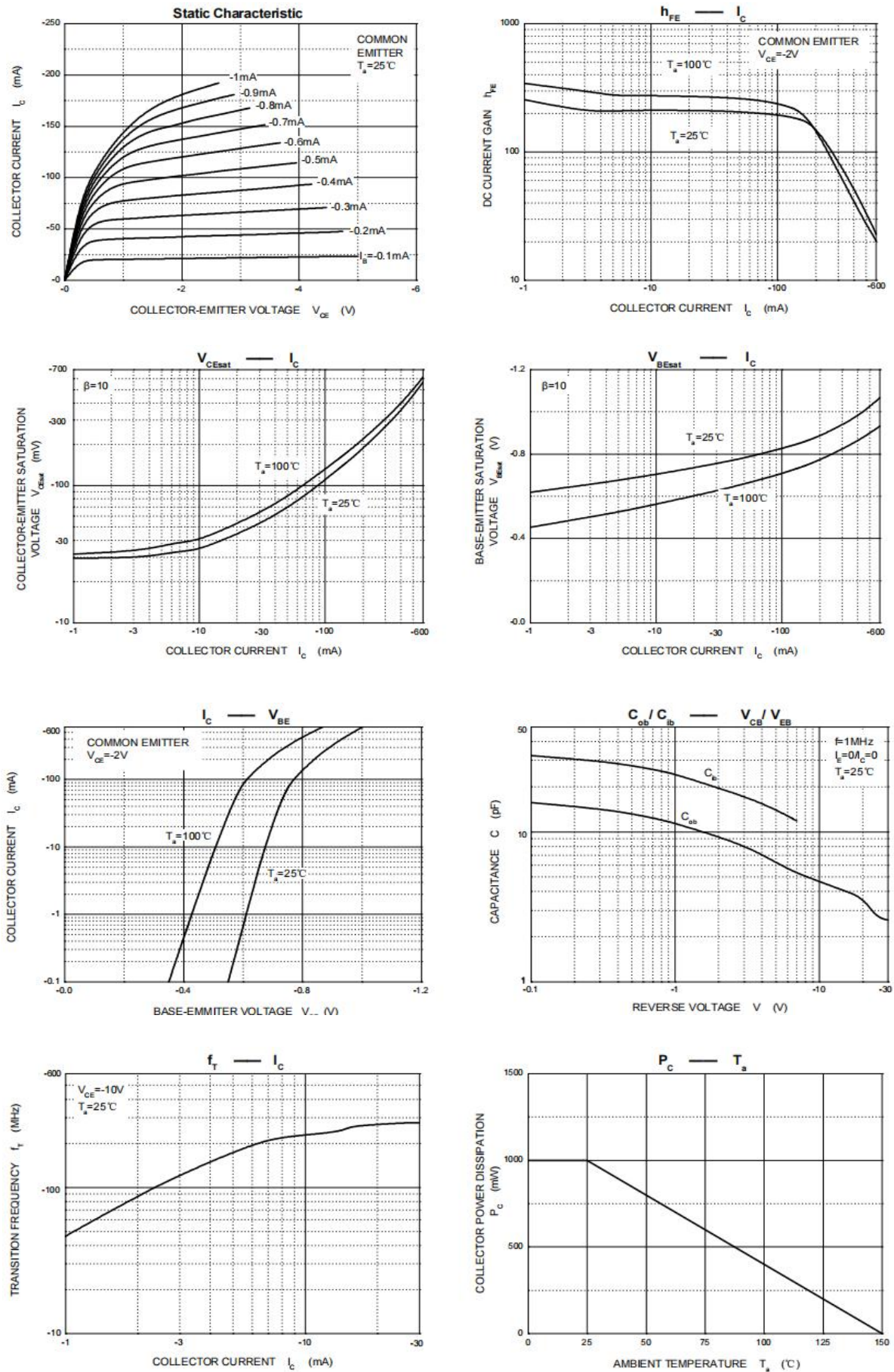
Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

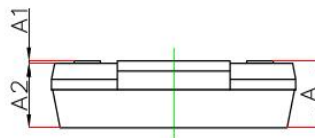
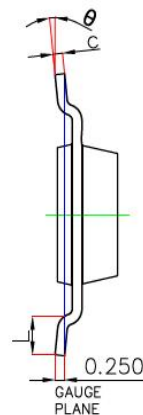
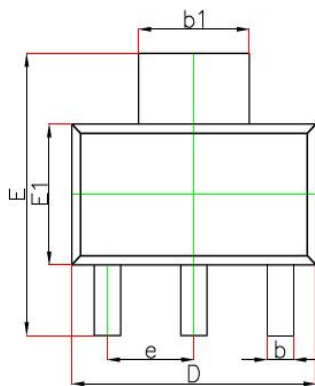
参数 Parameters	符号 Symbol	数值 Value	单位 Unit
Collector-Base Voltage	V _{CBO}	-40	V
Collector-Emitter Voltage	V _{CEO}	-40	V
Emitter -Base Voltage	V _{EBO}	-6	V
Collector Current	I _C	-0.6	A
Collector Power Dissipation	P _C	1	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55~+150	°C
Thermal resistance From junction to ambient	R _{θJA}	125	°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 =-0.1mA, I _E =0A	-40		V
Collector-emitter breakdown voltage	V(BR)CEO	I _C =-1mA, I _B =0A	-40		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =-0.1mA, I _C =0A	-6		V
Collector cut-off current	I _{CBO}	V _{CB} =-40V, I _E =0A		-50	nA
Emitter Cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0A		-50	nA
DC current gain	hFE(1)	V _{CE} =-1V, I _C =-0.1mA	30		
	hFE(2)	V _{CE} =-1V, I _C =-1mA	60		
	hFE(3)	V _{CE} =-1V, I _C =-10mA	100		
	hFE(4)	V _{CE} =-2V, I _C =-150mA	100	300	
	hFE(5)	V _{CE} =-2V, I _C =-500mA	20		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-150mA, I _B =-15mA		-0.40	V
		I _C =-500mA, I _B =-50mA		-0.75	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =-150mA, I _B =-15mA		-0.95	V
		I _C =-500mA, I _B =-50mA		-1.30	V
Transition frequency	f _T	V _{CE} =-10V, I _C =-20mA; f=100MHz	200		MHz
Collector capacitance	C _c	V _{CB} =-5V, I _E =0A, f=1MHz		8.5	pF
Emitter capacitance	C _e	V _{BE} =-0.5V, I _C =0A, f=1MHz		35	pF

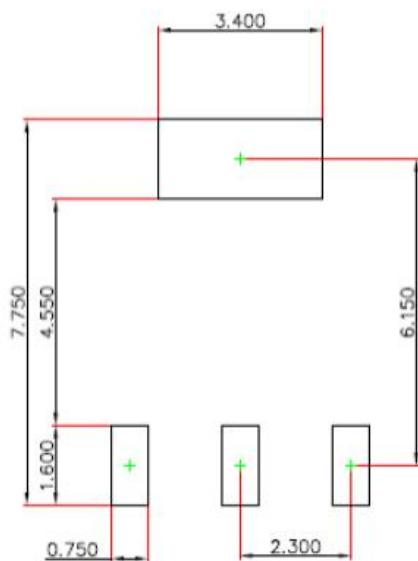
Typical characteristics


SOT-223 PACKAGE OUTLINE Plastic surface mounted package


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	—	1.800	—	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130	0.146
e	2.300(BSC)		0.091(BSC)	
L	0.750	—	0.030	—
θ	0°	10°	0°	10°

焊盘设计参考Precautions: PCB Design

Recommended land dimensions for SOT-223 diode. Electrode patterns for PCBs


Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.050\text{mm}$.
3. The pad layout is for reference purposes only.

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