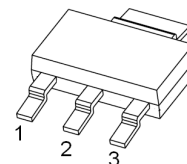


Features

- High voltage
- For high voltage amplifier applications



SOT-223

1. BASE
2. COLLECTOR
3. EMITTER

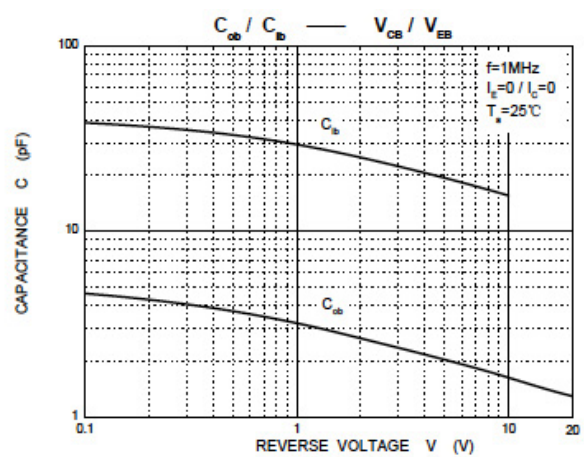
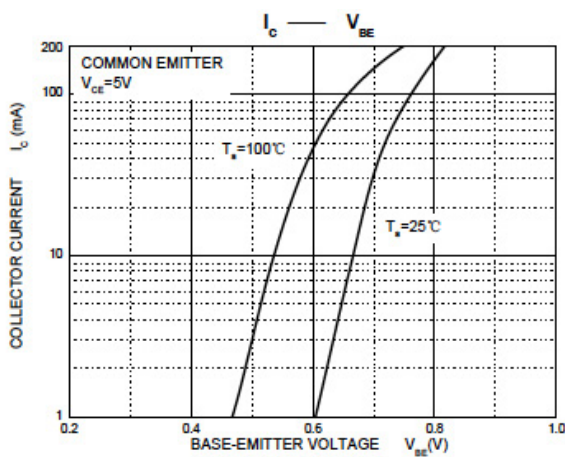
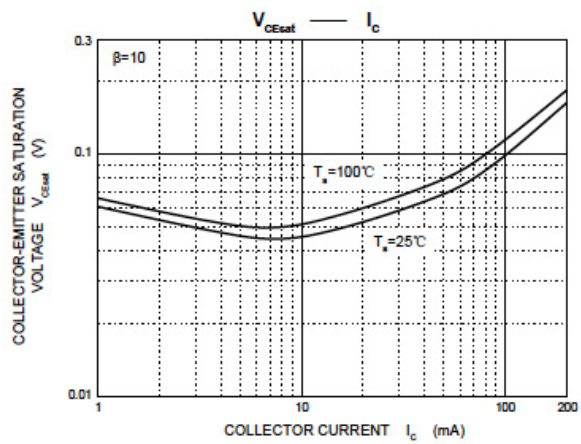
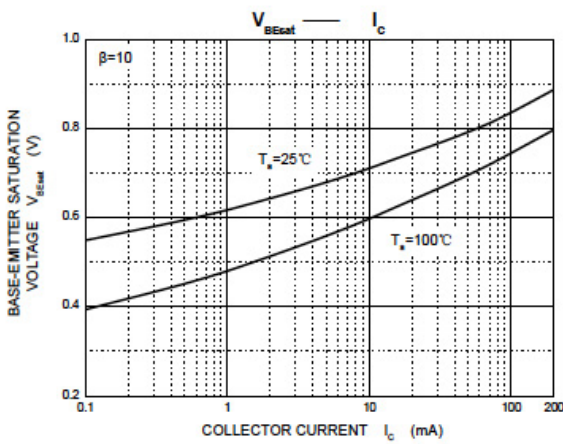
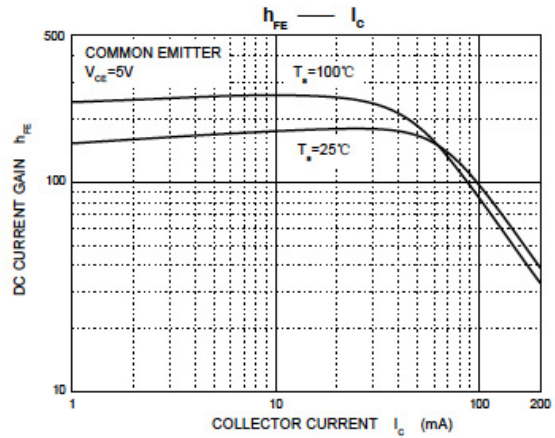
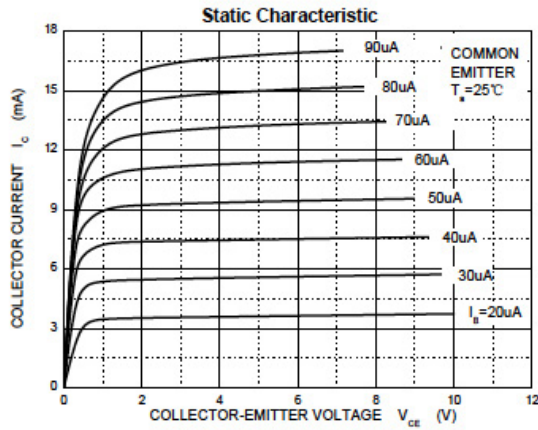
Absolute Maximum Ratings (T_A = 25 °C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	180	V
Collector-Emitter Voltage	V _{CEO}	160	V
Emitter-Base Voltage	V _{EBO}	6	V
Collector Current	I _C	600	mA
Collector Power Dissipation	P _C	1	W
Thermal Resistance from Junction to Ambient	R _{θJA}	125	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55 to +150	°C

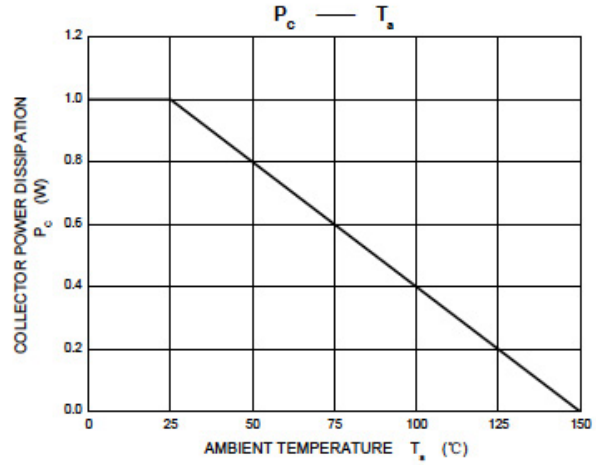
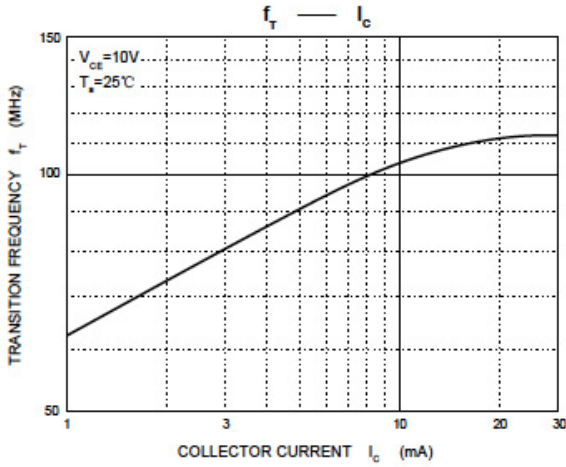
Electrical Characteristics (T_A = 25 °C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C =0.1mA, I _E =0	180			V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	160			V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E =0.01mA, I _C =0	6			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =120V, I _E =0			50	nA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =4V, I _C =0			50	nA
DC Current Gain	h _{FE(1)}	V _{CE} =5V, I _C =1mA	80			
	h _{FE(2)}	V _{CE} =5V, I _C =10mA	80		250	
	h _{FE(3)}	V _{CE} =5V, I _C =50mA	30			
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =10mA, I _B =1mA			0.15	V
		I _C =50mA, I _B =5mA			0.2	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =10mA, I _B =1mA			1	V
		I _C =50mA, I _B =5mA			1	V
Transition Frequency	f _T	V _{CE} =10V, I _C =10mA, f=100MHz	100		300	MHz
Collector Output Capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			6	pF
Emitter Input Capacitance	C _{ib}	V _{BE} =0.5V, I _C =0, f=1MHz			20	pF

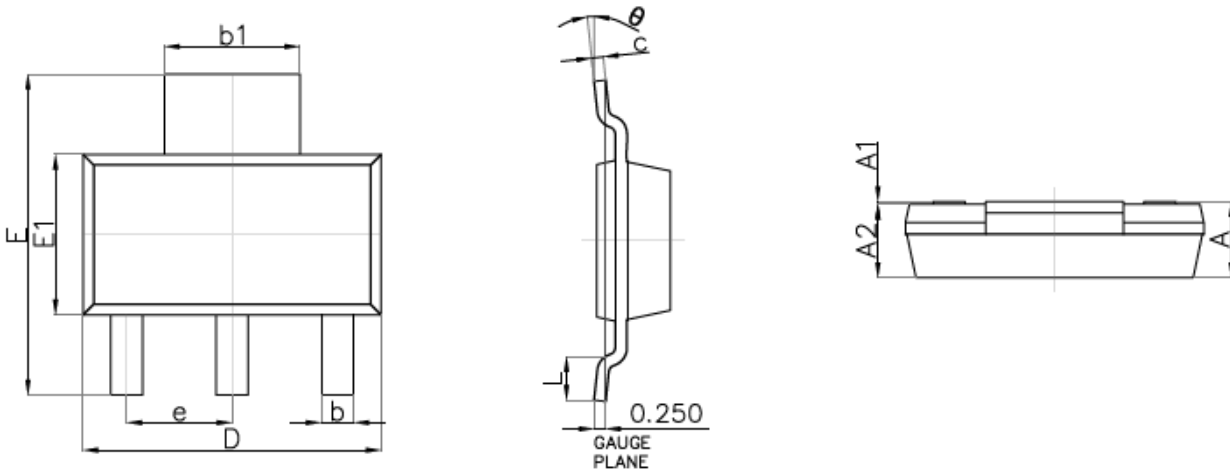
Typical Characteristic Curves



Typical Characteristic Curves

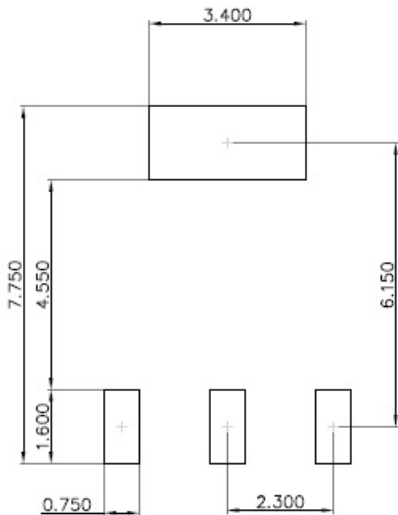


Package Outline Dimensions SOT-223



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°

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.050 mm.
3. The pad layout is for reference purposes only.

Marking and Ordering Information

Device	Package	Marking	Quantity	HSF Status
PZT5551	SOT-223	ZT5551	1000pcs / Reel	RoHS Compliant