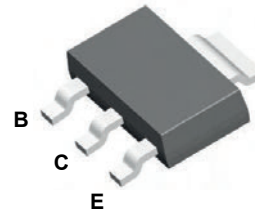
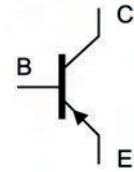


Features

- High voltage
- Low saturation voltages



SOT-223



Schematic Diagram

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}	-140	V
Emitter-Base Voltage	V _{EBO}	-6	V
Collector Current	I _C	-4	A
Collector Power Dissipation	P _C	0.8	W
Thermal Resistance From Junction to Ambient	R _{θJA}	156	°C/W
Operation Junction and Storage Temperature Range	T _J , 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 =-10mA, I _B =0	-140	-	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E =-0.1mA, I _C =0	-6	-	-	V
Collector Cut-Off Current	I _{CBO}	V _{CB} =-150V, I _E =0	-	-	-50	nA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =-6V, I _C =0	-	-	-10	nA
DC Current Gain	h _{FE(1)}	V _{CE} =-5V, I _C =-10mA	100	-	-	-
	h _{FE(2)}	V _{CE} =-5V, I _C =-1A	100	-	300	-
	h _{FE(3)}	V _{CE} =-5V, I _C =-3A	75	-	-	-
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-100mA, I _B =-5mA	-	-	-60	mV
		I _C =-500mA, I _B =-50mA	-	-	-120	mV
		I _C =-1A, I _B =-100mA	-	-	-150	mV
		I _C =-3A, I _B =-300mA	-	-	-370	mV
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =-3A, I _B =-300mA	-	-	-1.11	V
Base-Emitter Voltage	V _{BE}	V _{CE} =-5V, I _C =-3A	-	-	-0.95	V
Transition Frequency	f _T	V _{CE} =-10V, I _C =-100mA, F=50MHz	-	70	-	MHz
Collector Output Capacitance	C _{ob}	V _{CB} =-20V, I _E =0, F=1MHz	-	40	-	pF
Switching Times	t _{on}	V _{CC} =-50V, I _C =-1A, I _{B1} =I _{B2} =-100mA	-	68	-	nS
	t _{off}		-	1030	-	nS

Typical Electrical Characteristic Curves

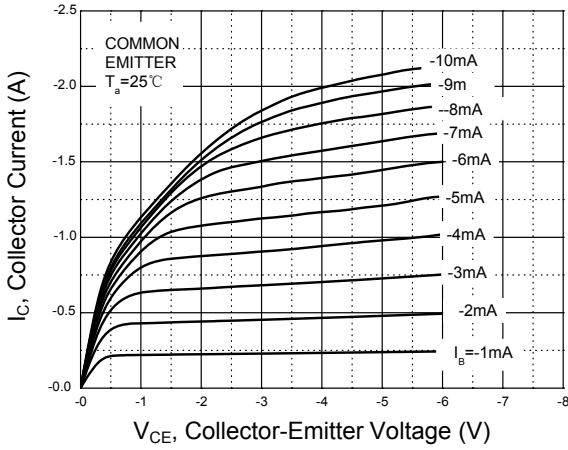


Figure 1. Static Characteristic

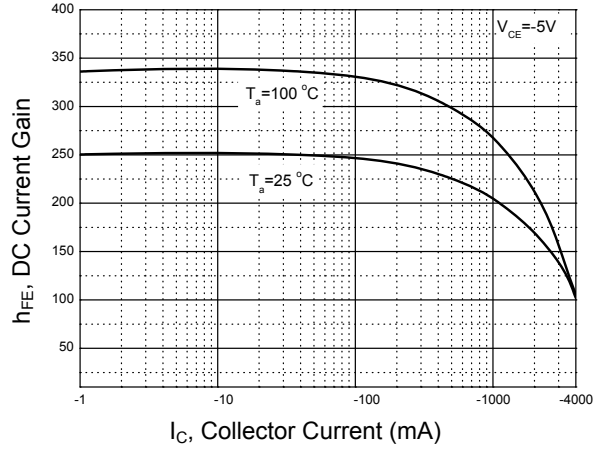


Figure 2. $h_{FE} - I_C$

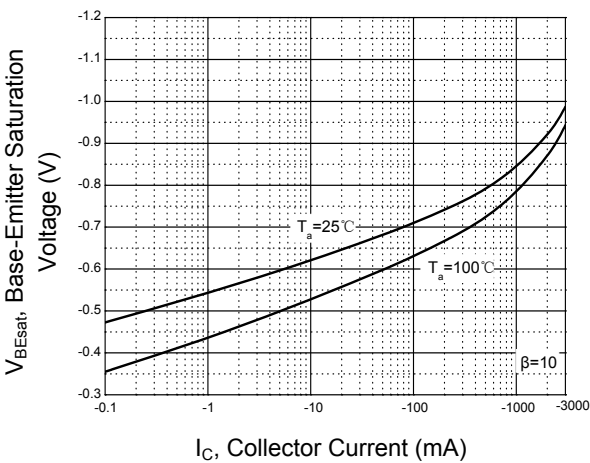


Figure 3. $V_{BEsat} - I_C$

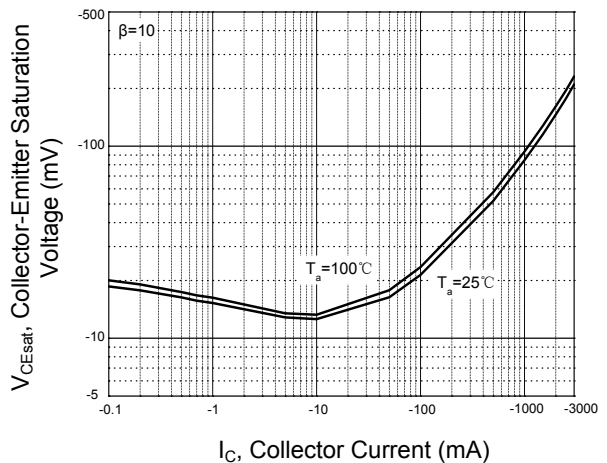


Figure 4. $V_{CEsat} - I_C$

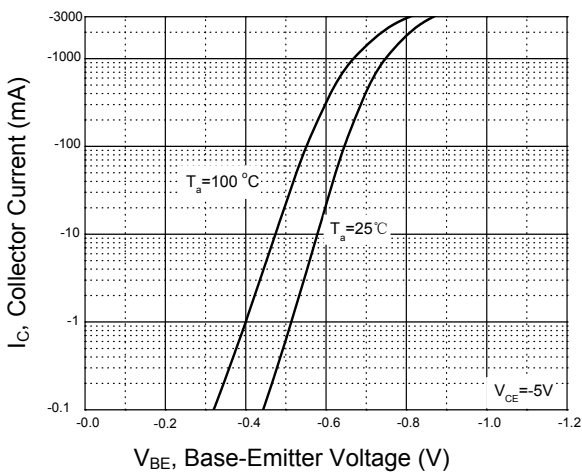


Figure 5. $V_{BE} - I_C$

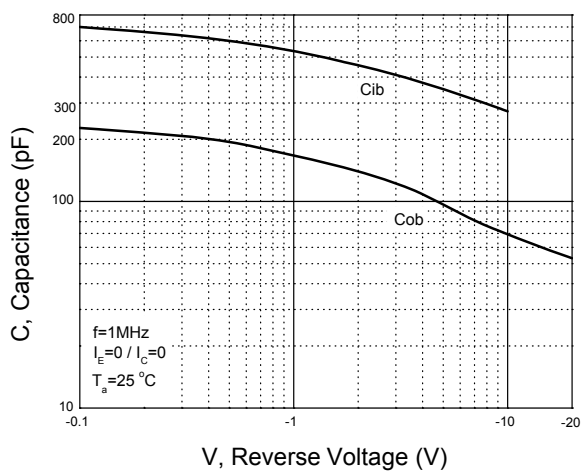


Figure 6. $C_{ob}/C_{ib} - V_{CB}/V_{EB}$

Typical Electrical Characteristic Curves

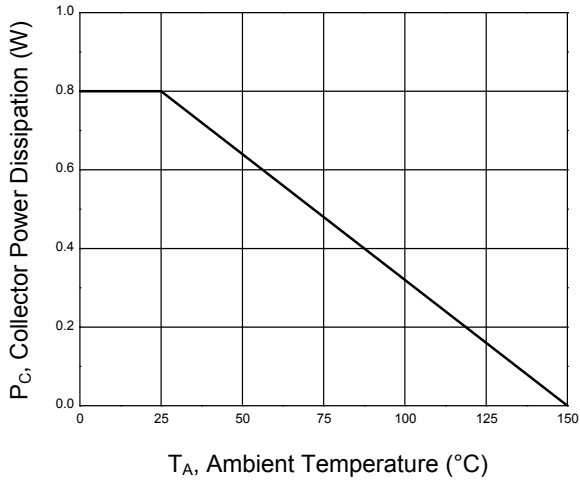
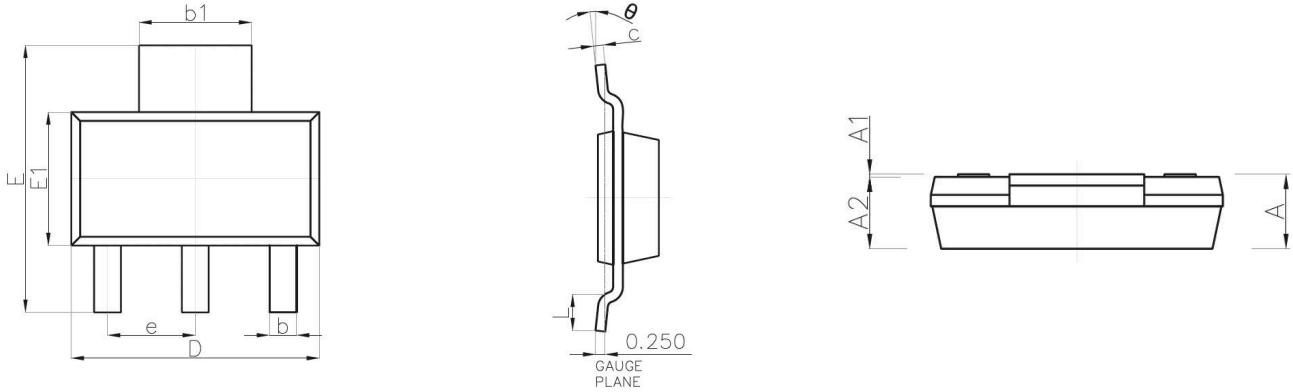


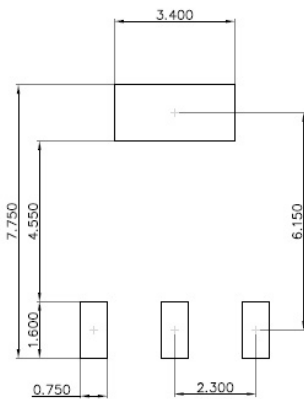
Figure 7. $P_C - T_a$

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°

Recommended Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Order Information

Device	Package	Marking	Quantity	HSF Status
PZT955	SOT-223	ZT955	2,500pcs / Reel	RoHS Compliant