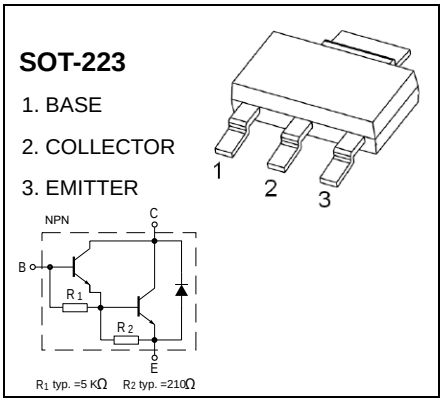
SZCJ Shenzhen Changji Semiconductor Co., LTD.

SOT-223 Plastic-Encapsulate Transistors

CZT122 TRANSISTOR (NPN)



FEATURES

- Complementary to CZT127
- Silicon Power Darlington Transistors
- Low speed switching and amplifier applications

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

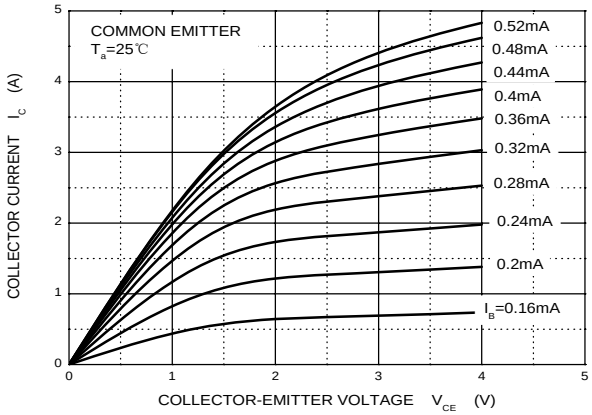
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	5	A
P_C	Collector Power Dissipation	1	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

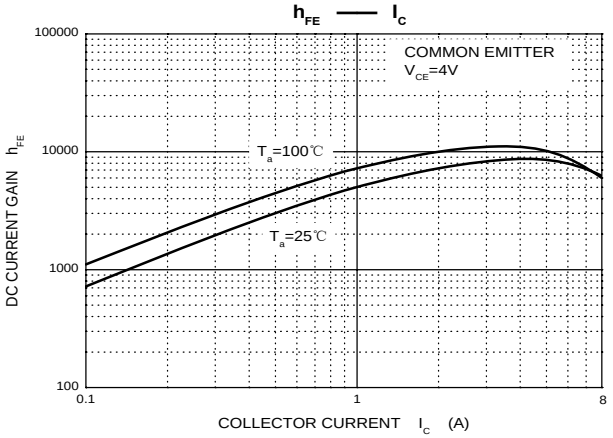
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=1m A,I_E=0	100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=30mA,I_B=0	100			V
Collector cut-off current	I_{CBO}	V_{CB}=100V,I_E=0			200	uA
Base cut-off current	I_{CEO}	V_{CE}=50V,I_B=0			500	uA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			2	mA
DC current gain	$h_{FE(1)}$	V_{CE}=3V,I_C=0.5A	1000			
	$h_{FE(2)}$	V_{CE}=3V,I_C=3A	1000			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	I_C=3A,I_B=12mA			2	V
	$V_{CE(sat)2}$	I_C=5A,I_B=20mA			4	V
Base-emitter voltage	$V_{BE(on)}$	V_{CE}=3V,I_C=3A			2.5	V
Transition frequency	f_T	V_{CE}=4V,I_C=3A,f=1MHz	4			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz			200	pF

Typical Characterisitics CZT122

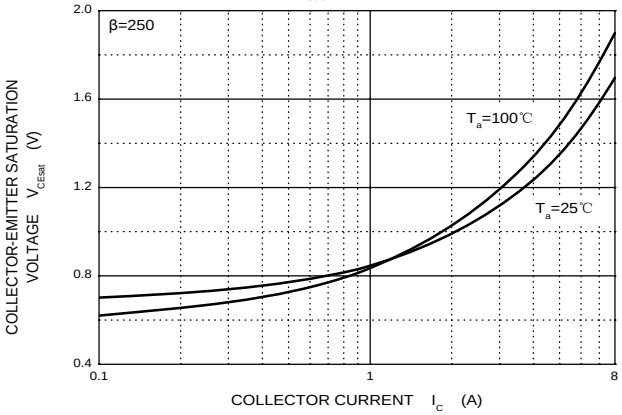
Static Characteristic



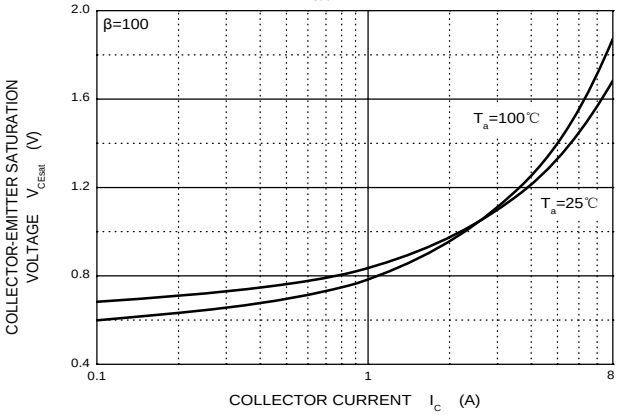
h_{FE} — I_C



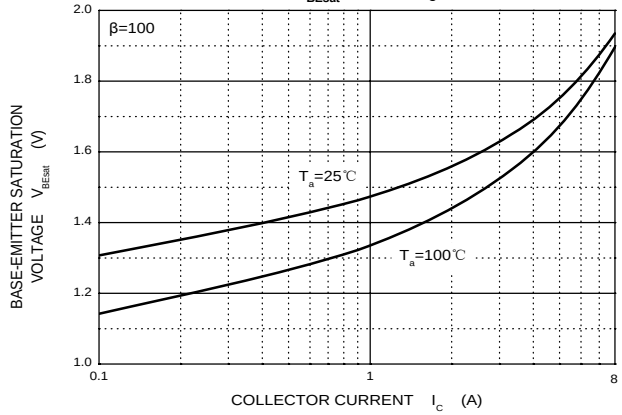
V_{CEsat} — I_C



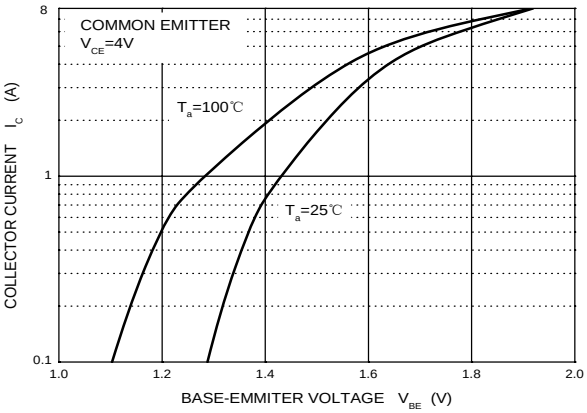
V_{CEsat} — I_C



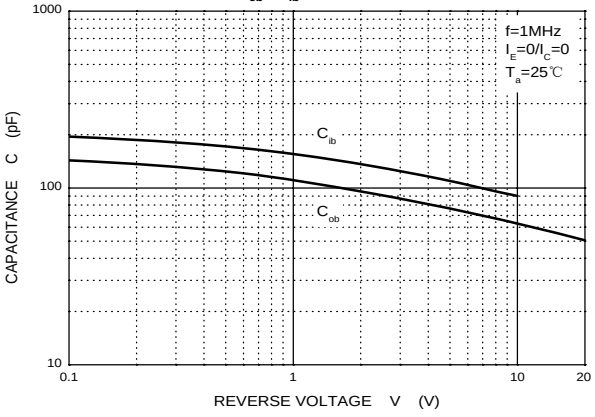
V_{BEsat} — I_C



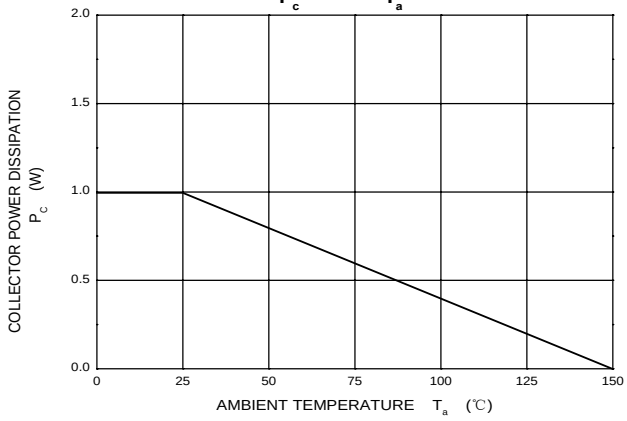
I_C — V_{BE}



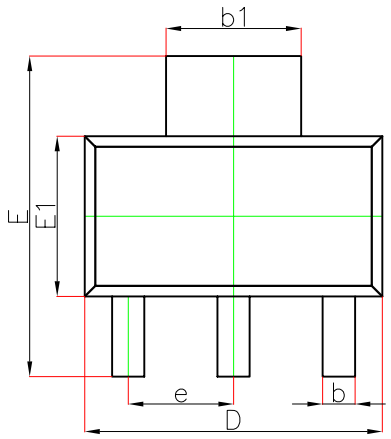
C_{ob}/ C_{ib} — V_{CB}/ V_{EB}

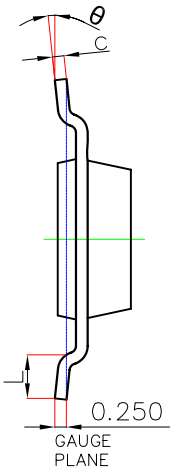


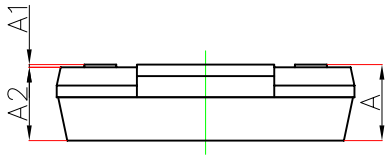
P_c — T_a



SOT-223 Package Outline Dimensions

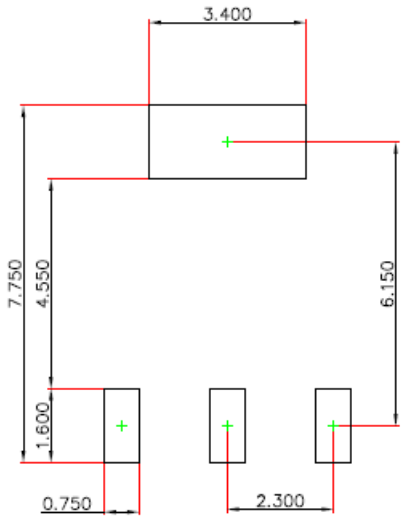






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	——	1.800	——	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130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

SOT-223 Suggested Pad Layout



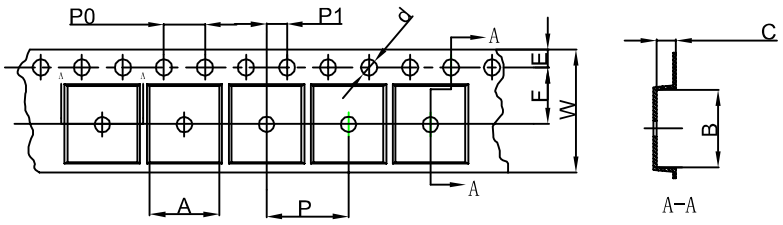
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.050mm.
3.The pad layout is for reference purposes only.

NOTICE

SZCJ reserves the right to make modifications,enhan nts,improvements,corrections or other es without further notice to any product herein. SZCJ does not assume any liability arising out of the application or use of any product described h

SOT-223 Tape and Reel

SOT-223 Embossed Carrier Tape

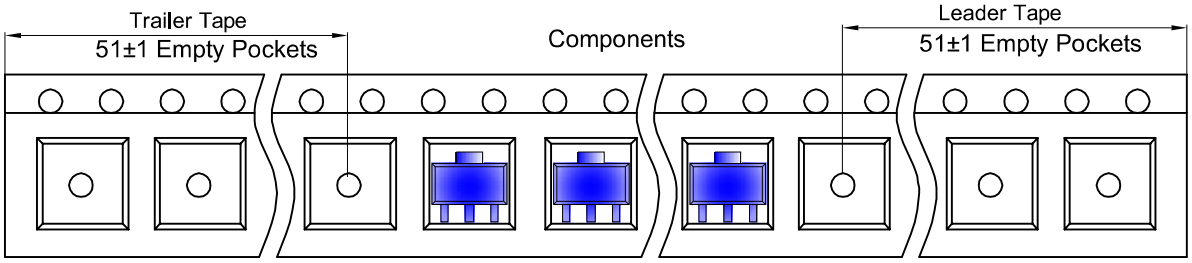


Packaging Description:

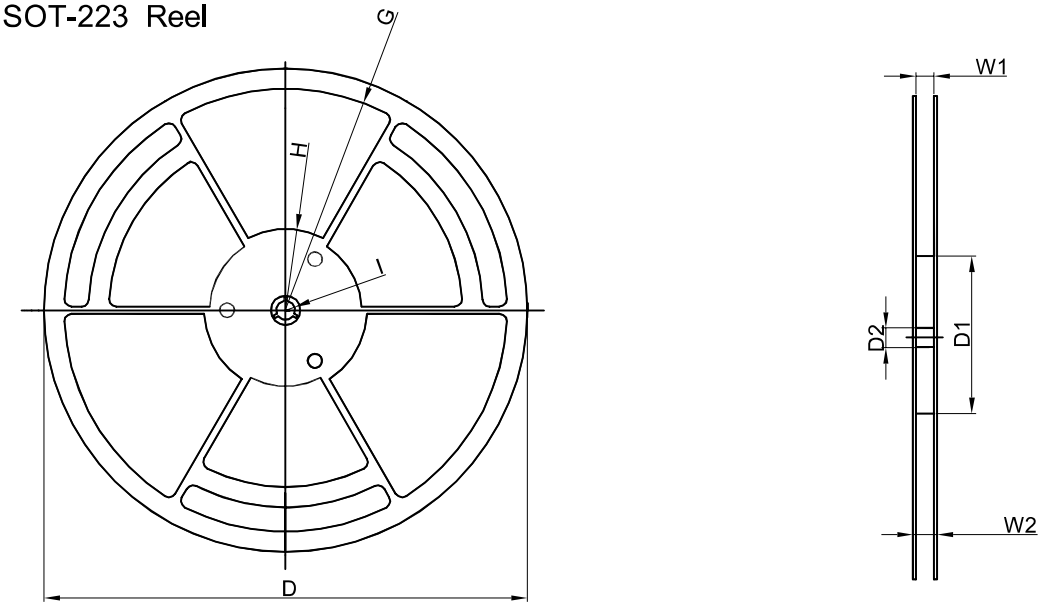
SOT-223 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 2,500 units per 13" or 33.0cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-223	6.765	7.335	1.88	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

SOT-223 Tape Leader and Trailer



SOT-223 Reel



Dimensions are in millimeter								
Reel Option	**D**	**D1**	**D2**	**G**	**H**	**I**	**W1**	**W2**
13" Dia	φ330.00	100.00	13.00	R151.00	R56.00	R6.50	12.40	17.60

Reel	**Reel Size**	**Box**	**Box Size (mm)**	**Carton**	**Carton Size (mm)**
2,500 pcs	13 inch	5,000 pcs	360×360×65	25,000 pcs	378×358×382