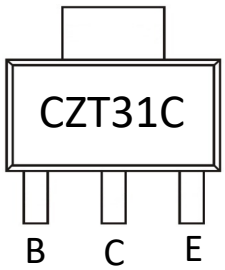
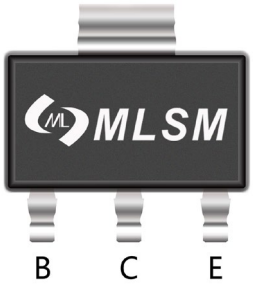
Features

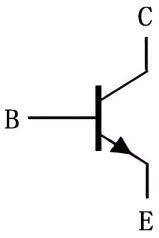
- Complementary to CZT32C
- Power amplifier applications up to 3.0 amps.



Marking and pin assignment



SOT-223 top view



Schematic diagram

Pb-Free RoHS Halogen-Free

Maximum Ratings(Ta=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	3	A
P_C	Collector Power Dissipation	1	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

Ordering Information (Example)

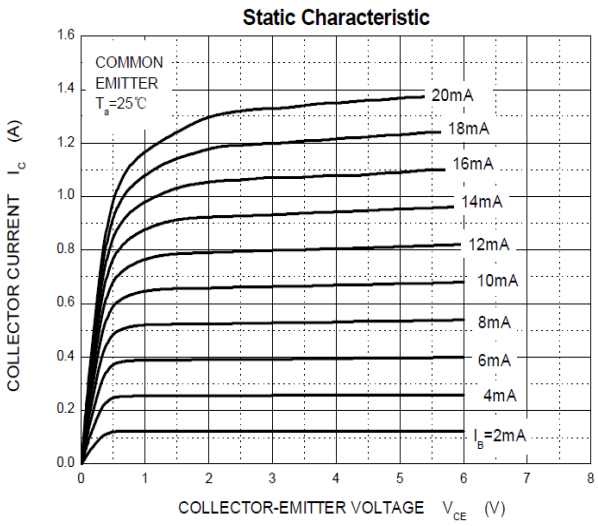
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
CZT31C	SOT-223	CZT31C	2,500	5,000	35,000	13"reel

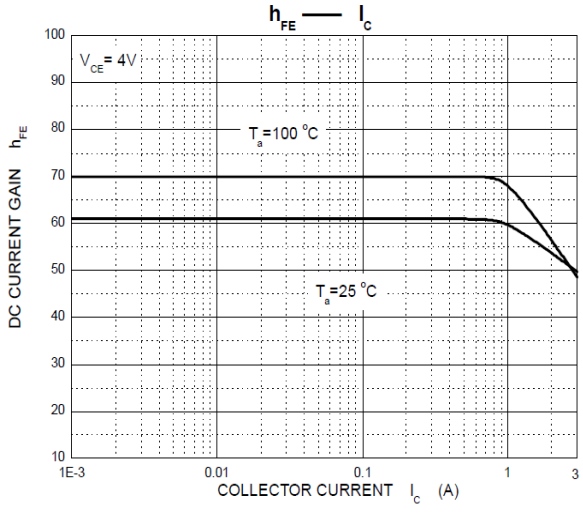
Electrical Characteristics (TJ=25℃ unless otherwise noted)

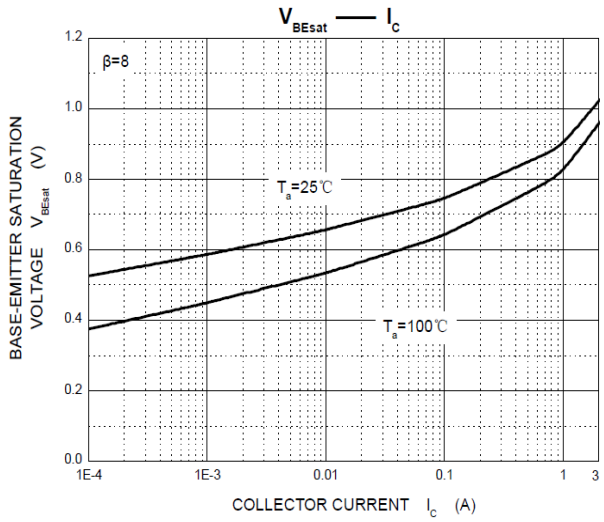
Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=1mA, I_E=0	100	--	--	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=30mA, I_B=0	100	--	--	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=3mA, I_C=0	5	--	--	V
I_{CBO}	Collector cut-off current	V_{CB}=100V , I_E=0	--	--	200	μA
I_{CEO}	Collector cut-off current	V_{CE}=60V,I_B=0	--	--	300	μA
I_{EBO}	Emitter cut-off current	V_{EB}=5V , I_C=0	--	--	1	mA
h_{FE1}*	DC current gain	V_{CE}=4V, I_C=1A	25	--	--	--
h_{FE2}*		V_{CE}=4V, I_C= 3A	10	--	100	
$V_{CE(sat)}$*	Collector-emitter saturation voltage	I_C=3.0A, I_B=375mA	--	--	1.2	V
V_{BE}*	Base-emitter voltage	V_{CE}=4V,I_C=3A	--	--	1.8	V
f_T	Transition frequency	V_{CE}=10V, I_C=500mA,f=1MHz	3	--	--	MHz

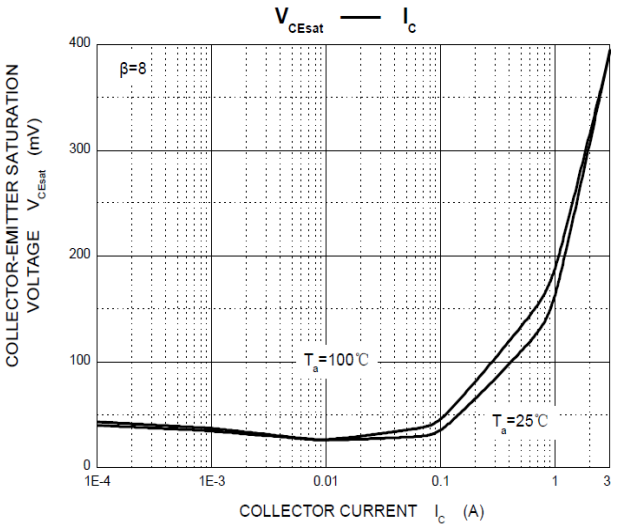
*Pulsed , 2%D.C.

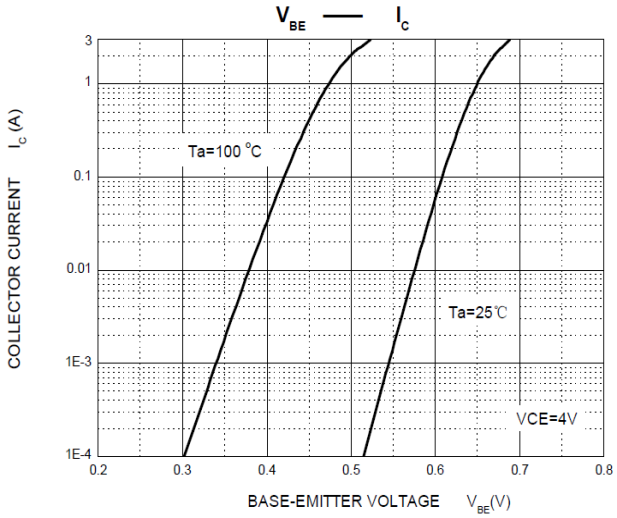
Typical Characteristics

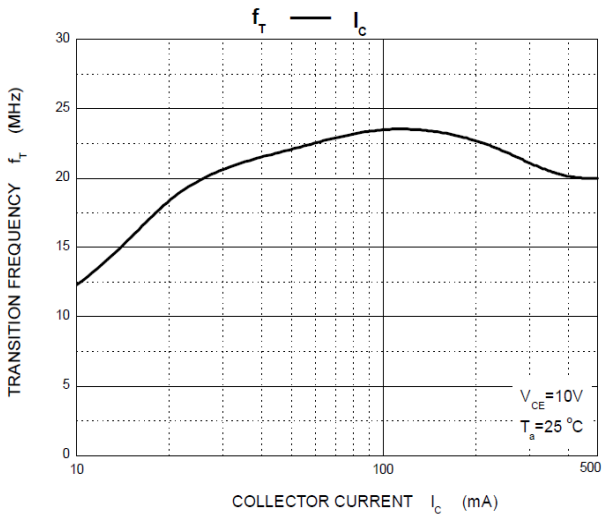


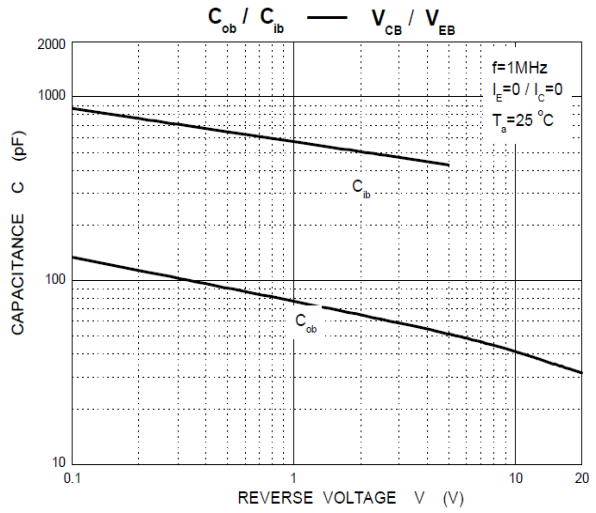


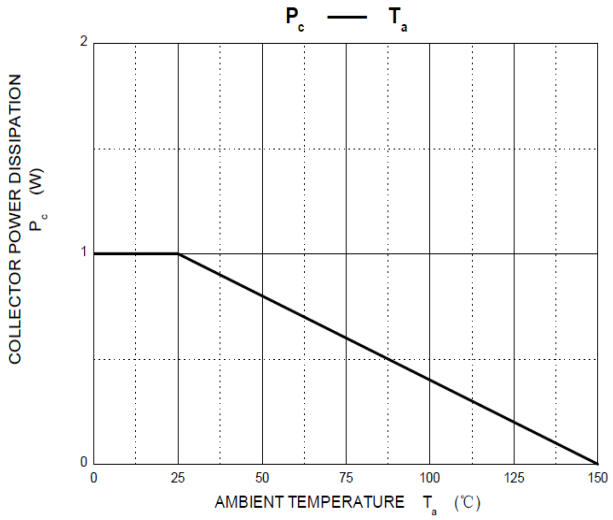




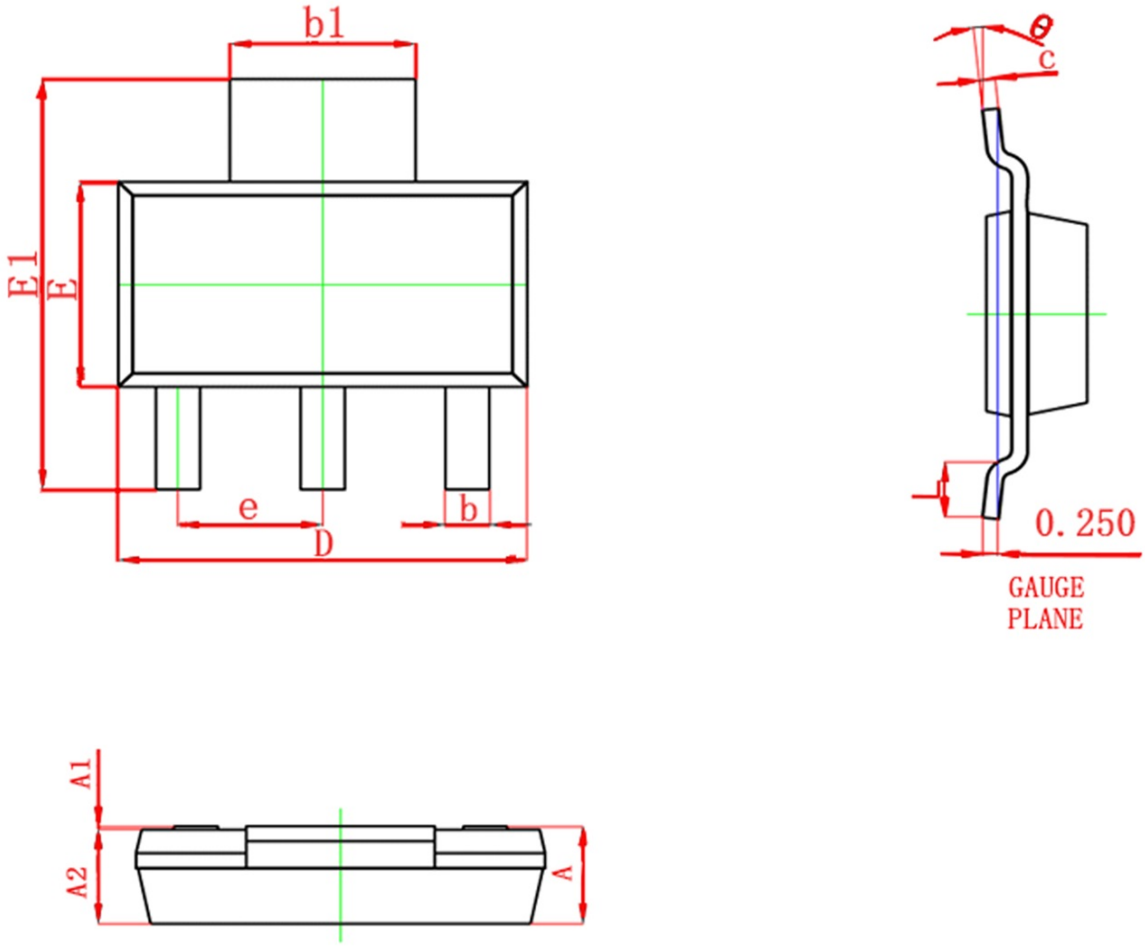








SOT-223 Package information



Symbol	Dimensions in Millimeters(mm)		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	3.300	3.700	0.130	0.146
E1	6.700	7.300	0.264	0.287
e	2.300(BSC)		0.091(BSC)	
L	0.750	--	0.030	--
θ	0°	10°	0°	10°