

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

### FEATURES

- Silicon Power Darlington Transistors
- Low Speed Switching and Amplifier Applications

### MARKING

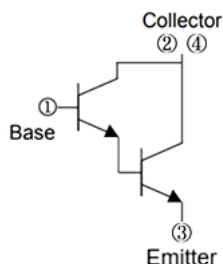
ZT122

### PACKAGE INFORMATION

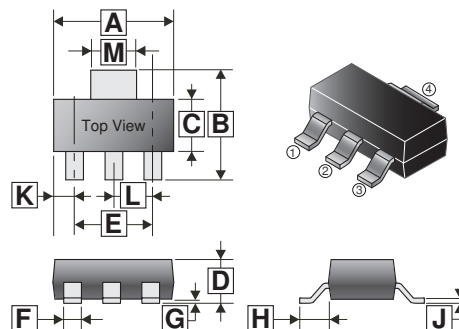
Package	MPQ	Leader Size
SOT-223	2.5K	13 inch

### ORDER INFORMATION

Part Number	Type
CZT122-C	Lead (Pb)-free and Halogen-free



### SOT-223



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	5.90	6.70	G	-	0.18
B	6.70	7.30	H	2.00	REF.
C	3.30	3.80	J	0.20	0.40
D	1.42	1.90	K	1.10	REF.
E	4.45	4.75	L	2.30	REF.
F	0.60	0.85	M	2.80	3.20

### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V <sub>CB0</sub>	100	V
Collector-Emitter Voltage	V <sub>CEO</sub>	100	
Emitter-Base Voltage	V <sub>EBO</sub>	5	
Collector Current-Continuous	I <sub>C</sub>	5	A
Collector Power Dissipation	P <sub>D</sub>	1	W
Operation Junction & Storage Temperature	T <sub>J</sub> , T <sub>STG</sub>	150, -55~150	°C

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	100	-	-	V	I <sub>C</sub> =1mA, I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	100	-	-	V	I <sub>C</sub> =30mA, I <sub>B</sub> =0
Collector Cut-off Current	I <sub>CBO</sub>	-	-	200	μA	V <sub>CB</sub> =100V, I <sub>E</sub> =0
Base Cut-off Current	I <sub>CEO</sub>	-	-	500		V <sub>CE</sub> =50V, I <sub>B</sub> =0
Emitter Cut-off Current	I <sub>EBO</sub>	-	-	2	mA	V <sub>EB</sub> =5V, I <sub>C</sub> =0
DC Current Gain	h <sub>FE</sub>	1000	-	-	-	V <sub>CE</sub> =3V, I <sub>C</sub> =0.5A
		1000	-	-		V <sub>CE</sub> =3V, I <sub>C</sub> =3A
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	-	-	2	V	I <sub>C</sub> =3A, I <sub>B</sub> =12mA
		-	-	4		I <sub>C</sub> =5A, I <sub>B</sub> =20mA
Base-Emitter Voltage	V <sub>BE(on)</sub>	-	-	2.5	V	I <sub>C</sub> =3A, V <sub>CE</sub> =3V
Transition Frequency	f <sub>T</sub>	-	4	-	MHz	V <sub>CE</sub> =4V, I <sub>C</sub> =3A, f=1MHz
Collector Output Capacitance	C <sub>ob</sub>	-	200	-	pF	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz

**CHARACTERISTIC CURVES**

Static Characteristic

