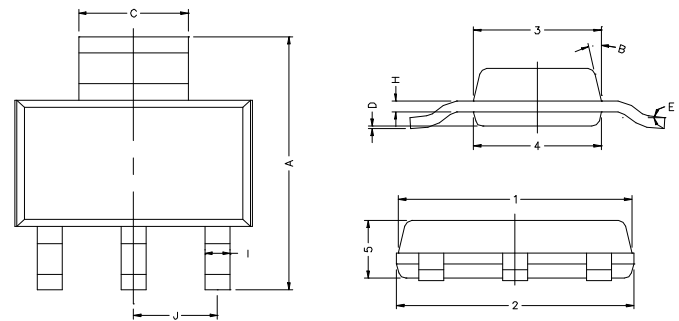


## NPN Transistor Epitaxial Planar Transistor

### SOT-223

### Description

The CZT5551 is designed for general purpose applications requiring high breakdown voltages.



REF.	Min.	Max.	REF.	Min.	Max.
A	6.70	7.30	B	13 TYP.	
C	2.90	3.10	J	2.30 REF.	
D	0.02	0.10	1	6.30	6.70
E	0°	10°	2	6.30	6.70
I	0.60	0.80	3	3.30	3.70
H	0.25	0.35	4	3.30	3.70
			5	1.40	1.80

### MAXIMUM RATINGS\* (T<sub>amb</sub>=25°C, unless otherwise specified)

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage	180	V
V <sub>CEO</sub>	Collector-Emitter Voltage	160	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current-Continuous	600	mA
P <sub>D</sub>	Total Power Dissipation	1.5	W
T <sub>J</sub> , T <sub>stg</sub>	Junction and Storage Temperature	-55~-150	°C

### ELECTRICAL CHARACTERISTICS T<sub>amb</sub>=25°C unless otherwise specified

Parameter	Symbol	MIN	TYP	MAX	UNIT	Test conditions
Collector-base breakdown voltage	V(BR) <sub>CBO</sub>	180	-	-	V	I <sub>C</sub> = 100uA, I <sub>E</sub> =0
Collector-emitter breakdown voltage	V(BR) <sub>CEO</sub>	160	-	-	V	I <sub>C</sub> = 1mA, I <sub>B</sub> =0
Emitter-base breakdown voltage	V(BR) <sub>EBO</sub>	6	-	-	V	I <sub>E</sub> = 10uA, I <sub>C</sub> =0
Collector cut-off current	I <sub>CBO</sub>	-	-	50	nA	V <sub>CB</sub> = 120V, I <sub>E</sub> =0
Emitter cut-off current	I <sub>EBO</sub>	-	-	50	nA	V <sub>EB</sub> = 4V, I <sub>C</sub> =0
DC current gain	h <sub>FE 1</sub>	80	-	-	-	V <sub>CE</sub> = 5V, I <sub>C</sub> = 1mA
	h <sub>FE 2</sub>	80	160	400	-	V <sub>CE</sub> = 5V, I <sub>C</sub> = 10mA
	h <sub>FE 3</sub>	50	-	-	-	V <sub>CE</sub> = 5V, I <sub>C</sub> = 50mA
Collector-emitter saturation voltage	V <sub>CE(sat)</sub> <sub>1</sub>	-	-	0.15	V	I <sub>C</sub> = 10mA, I <sub>B</sub> = 1mA
	V <sub>CE(sat)</sub> <sub>2</sub>	-	-	0.2		I <sub>C</sub> = 50mA, I <sub>B</sub> = 5mA
Base-emitter saturation voltage	V <sub>BE(sat)</sub> <sub>1</sub>	-	-	1	V	I <sub>C</sub> = 10mA, I <sub>B</sub> = 1mA
	V <sub>BE(sat)</sub> <sub>2</sub>	-	-	1		I <sub>C</sub> = 50mA, I <sub>B</sub> = 5mA
Transition frequency	f <sub>T</sub>	100	-	300	MHZ	V <sub>CE</sub> = 10V, I <sub>C</sub> = 10mA, f = 100MHZ
Collector output capacitance	C <sub>ob</sub>	-	-	6	pF	V <sub>CB</sub> = 10V, f=1MHZ, I <sub>E</sub> =0

### CLASSIFICATION OF h<sub>FE</sub>

Rank	A	N	C
Range	80-200	100-240	160-400

**Characteristics Curve**

