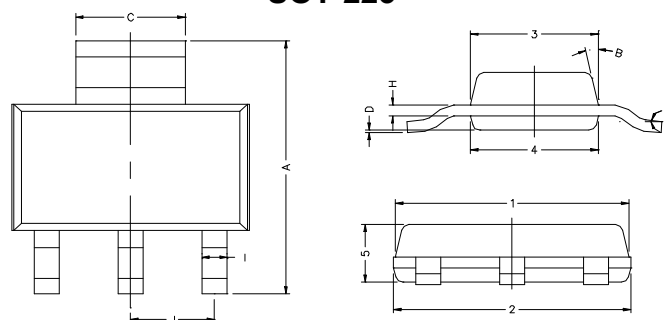


NPN Transistor Epitaxial Planar Transistor

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* ($T_{amb}=25^{\circ}\text{C}$, unless otherwise specified)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	600	mA
P_D	Total Power Dissipation	1.5	W
T_J, T_{stg}	Junction and Storage Temperature	-55~-150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS $T_{amb}=25^{\circ}\text{C}$ unless otherwise specified

Parameter	Symbol	MIN	TYP	MAX	UNIT	Test conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	180	—	—	V	$I_C = 100\mu\text{A}, I_E = 0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	160	—	—	V	$I_C = 1\text{mA}, I_B = 0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	$I_E = 10\mu\text{A}, I_C = 0$
Collector cut-off current	I_{CBO}	—	—	50	nA	$V_{CB} = 120\text{V}, I_E = 0$
Emitter cut-off current	I_{EBO}	—	—	50	nA	$V_{EB} = 4\text{V}, I_C = 0$
DC current gain	h_{FE1}	80	—	—	—	$V_{CE} = 5\text{V}, I_C = 1\text{mA}$
	h_{FE2}	80	160	400	—	$V_{CE} = 5\text{V}, I_C = 10\text{mA}$
	h_{FE3}	50	—	—	—	$V_{CE} = 5\text{V}, I_C = 50\text{mA}$
Collector-emitter saturation voltage	$V_{CE(sat)1}$	—	—	0.15	V	$I_C = 10\text{mA}, I_B = 1\text{mA}$
	$V_{CE(sat)2}$	—	—	0.2		$I_C = 50\text{mA}, I_B = 5\text{mA}$
Base-emitter saturation voltage	$V_{BE(sat)1}$	—	—	1	V	$I_C = 10\text{mA}, I_B = 1\text{mA}$
	$V_{BE(sat)2}$	—	—	1		$I_C = 50\text{mA}, I_B = 5\text{mA}$
Transition frequency	f_T	100	—	300	MHz	$V_{CE} = 10\text{V}, I_C = 10\text{mA}, f = 100\text{MHz}$
Collector output capacitance	C_{ob}	—	—	6	pF	$V_{CB} = 10\text{V}, f = 1\text{MHz}, I_E = 0$

CLASSIFICATION OF h_{FE}

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

Characteristics Curve

