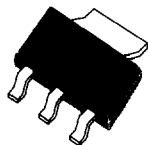


**CZT5551**

**NPN SILICON TRANSISTOR**



**SOT-223 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CZT5551 type is an NPN silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high voltage amplifier applications.

**MAXIMUM RATINGS** ( $T_A=25^{\circ}\text{C}$ )

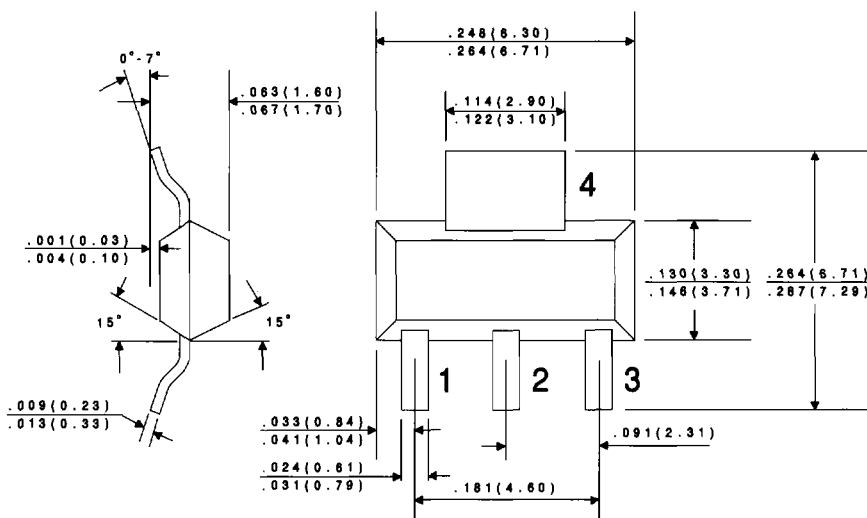
	<b>SYMBOL</b>		<b>UNITS</b>
Collector-Base Voltage	$V_{CB0}$	180	V
Collector-Emitter Voltage	$V_{CE0}$	160	V
Emitter-Base Voltage	$V_{EBO}$	6.0	V
Collector Current	$I_C$	600	mA
Power Dissipation	$P_D$	2.0	W
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	$\theta_{JA}$	62.5	$^{\circ}\text{C/W}$

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNITS</b>
$I_{CBO}$	$V_{CB}=120\text{V}$		50	nA
$I_{CBO}$	$V_{CB}=120\text{V}, T_A=100^{\circ}\text{C}$		50	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=4.0\text{V}$		50	nA
$BV_{CB0}$	$I_C=100\mu\text{A}$	180		V
$BV_{CE0}$	$I_C=1.0\text{mA}$	160		V
$BV_{EBO}$	$I_E=10\mu\text{A}$	6.0		V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.15	V
$V_{CE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		0.20	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		1.00	V
$V_{BE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		1.00	V
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$	80		
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$	80	250	
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=50\text{mA}$	30		

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$f_T$	$V_{CE}=10V, I_C=10mA, f=100MHz$	100	300	MHz
$C_{ob}$	$V_{CB}=10V, I_E=0, f=1.0MHz$		6.0	pF
$C_{ib}$	$V_{EB}=0.5V, I_C=0, f=1.0MHz$		20	pF
$h_{fe}$	$V_{CE}=10V, I_C=1.0mA, f=1.0kHz$	50	200	
NF	$V_{CE}=5.0V, I_C=200\mu A, R_S=10\Omega$ $f=10Hz$ to $15.7kHz$		8.0	dB

All dimensions in inches (mm).



LEAD CODE:

- 1) BASE
- 2) COLLECTOR
- 3) EMITTER
- 3) COLLECTOR

DATA SHEET

R2