

CZT5551

**SURFACE MOUNT SILICON
NPN TRANSISTOR**



SOT-223 CASE



www.centrasemi.com

DESCRIPTION:

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

MARKING: FULL PART NUMBER

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

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

V_{CBO}	180
V_{CEO}	160
V_{EBO}	6.0
I_C	600
P_D	2.0
T_J, T_{stg}	-65 to +150
Θ_{JA}	62.5

UNITS

V
V
V
mA
W
$^{\circ}\text{C}$
$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=120\text{V}$		50	nA
I_{CBO}	$V_{CB}=120\text{V}, T_A=100^{\circ}\text{C}$		50	μA
I_{EBO}	$V_{EB}=4.0\text{V}$		50	nA
BV_{CBO}	$I_C=100\mu\text{A}$	180		V
BV_{CEO}	$I_C=1.0\text{mA}$	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		
f_T	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	100	300	MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		6.0	pF
C_{ib}	$V_{EB}=0.5\text{V}, I_C=0, f=1.0\text{MHz}$		20	pF
h_{fe}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	50	200	
NF	$V_{CE}=5.0\text{V}, I_C=200\mu\text{A}, R_S=10\Omega, f=10\text{Hz to } 15.7\text{kHz}$		8.0	dB

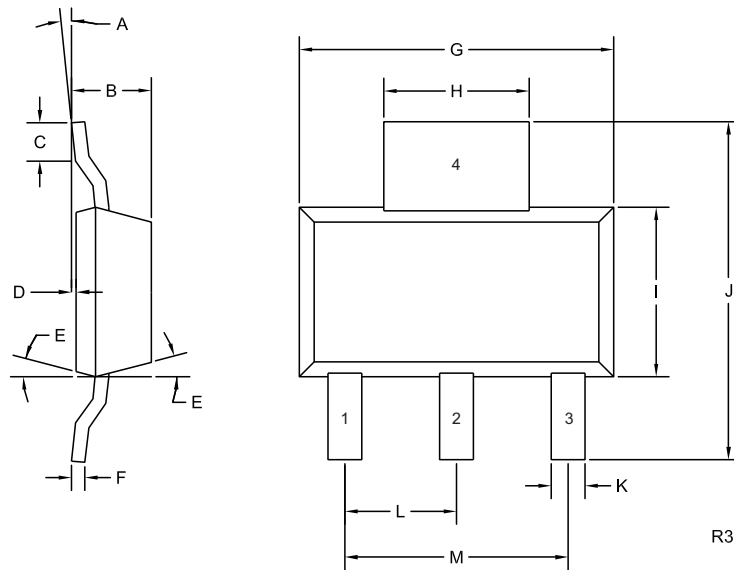
R5 (11-June 2013)

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SOT-223 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Base
- 2) Collector
- 3) Emitter
- 4) Collector

MARKING:

FULL PART NUMBER

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0°	10°	0°	10°
B	0.059	0.071	1.50	1.80
C	0.018	---	0.45	---
D	0.000	0.004	0.00	0.10
E	15°		15°	
F	0.009	0.014	0.23	0.35
G	0.248	0.264	6.30	6.70
H	0.114	0.122	2.90	3.10
I	0.130	0.146	3.30	3.70
J	0.264	0.287	6.70	7.30
K	0.024	0.033	0.60	0.85
L	0.091		2.30	
M	0.181		4.60	

SOT-223 (REV: R3)

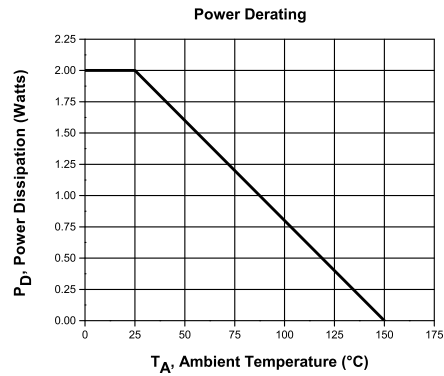
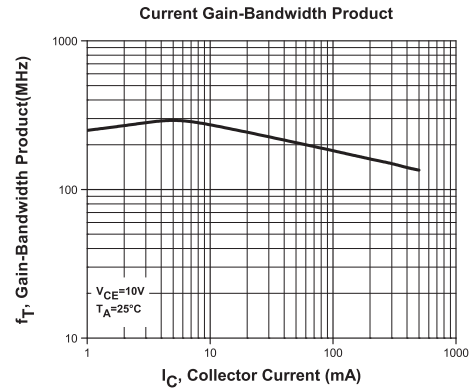
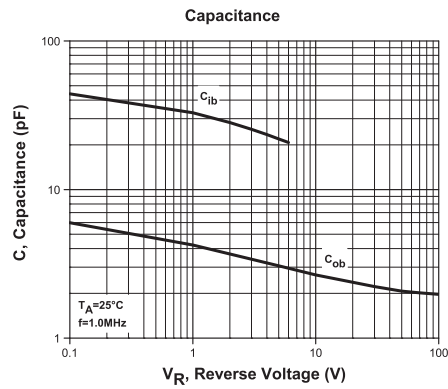
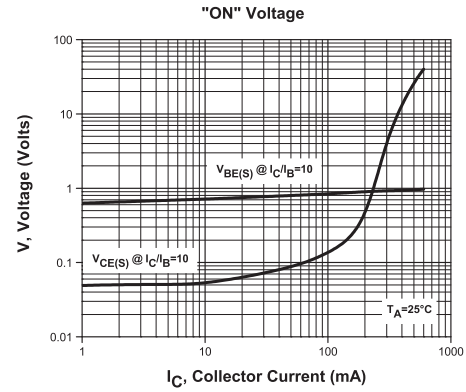
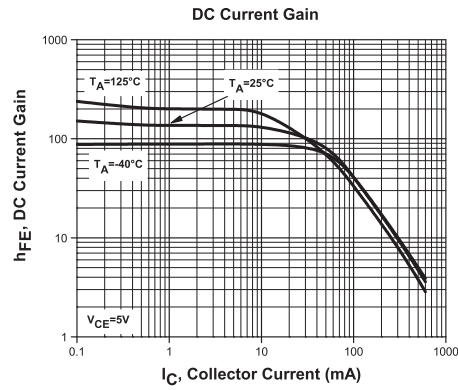
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TYPICAL ELECTRICAL CHARACTERISTICS



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AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit www.ameya360.com

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692

Email amall@ameya360.com

QQ 800077892

Skype ameyasales1 ameyasales2

➤ Customer Service :

Email service@ameya360.com

➤ Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com