



CZT31C NPN  
CZT32C PNP

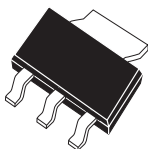
2.0W COMPLEMENTARY SILICON  
POWER TRANSISTOR

**Central**<sup>TM</sup>  
Semiconductor Corp.

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CZT31C and CZT32C types are surface mount epoxy molded complementary silicon transistors manufactured by the epitaxial base process, designed for surface mounted power amplifier applications up to 3.0 amps.

**POWER**<sup>TM</sup>  
**223**



**SOT-223 CASE**

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

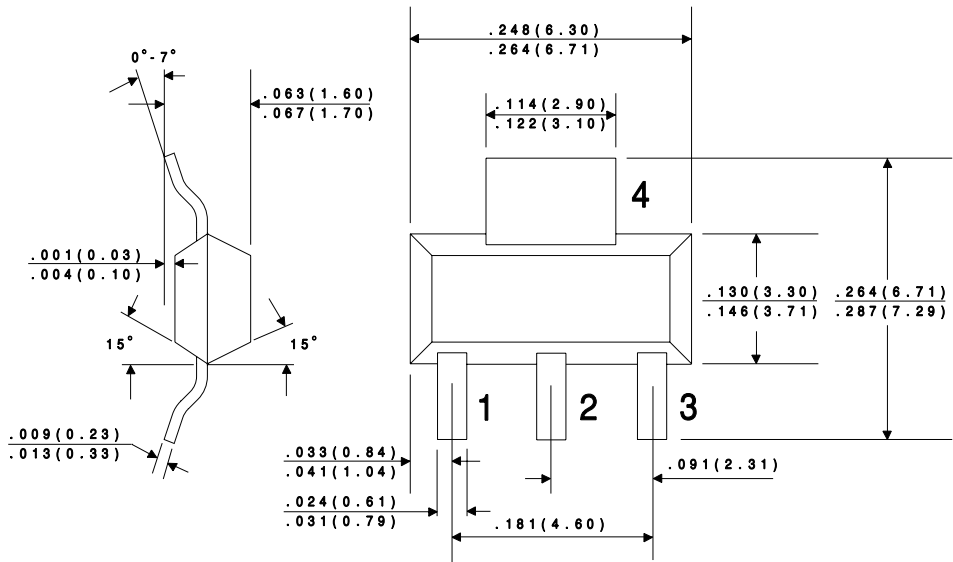
	<b>SYMBOL</b>		<b>UNITS</b>
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	$V_{CEO}$	100	V
Emitter-Base Voltage	$V_{EBO}$	5.0	V
Collector Current	$I_C$	3.0	A
Peak Collector Current	$I_{CM}$	6.0	A
Base Current	$I_B$	1.0	A
Power Dissipation	$P_D$	2.0	W
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-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>
$I_{CES}$	$V_{CE}=100\text{V}$		200	$\mu\text{A}$
$I_{CEO}$	$V_{CE}=60\text{V}$		300	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=5.0\text{V}$		1.0	mA
$BV_{CEO}$	$I_C=30\text{mA}$	100		V
* $V_{CE(SAT)}$	$I_C=3.0\text{A}, I_B=375\text{mA}$		1.2	V
* $V_{BE(ON)}$	$V_{CE}=4.0\text{V}, I_C=3.0\text{A}$		1.8	V
* $h_{FE}$	$V_{CE}=4.0\text{V}, I_C=1.0\text{A}$	25		
* $h_{FE}$	$V_{CE}=4.0\text{V}, I_C=3.0\text{A}$	10	100	
$f_T$	$V_{CE}=10\text{V}, I_C=500\text{mA}, f=1.0\text{MHz}$	3.0		MHz

\* Pulsed, 2%D.C.

All dimensions in inches (mm).



LEAD CODE:

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