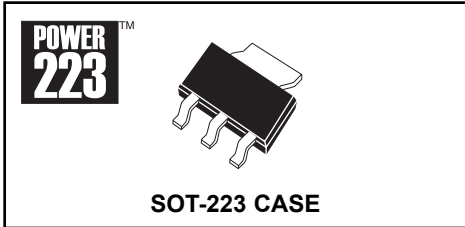


**CZT3150**  
**SURFACE MOUNT**  
**NPN SILICON POWER TRANSISTOR**



# Central<sup>TM</sup>

## Semiconductor Corp.

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CZT3150 type is a NPN Silicon Power Transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high current, high gain, fast switching applications.

**MARKING CODE: FULL PART NUMBER**

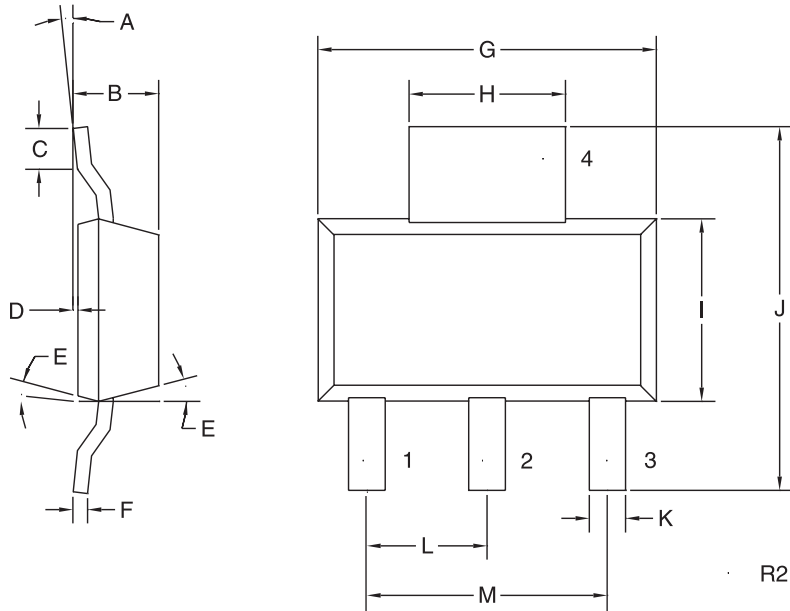
**MAXIMUM RATINGS:** (T<sub>A</sub>=25°C)

			<b>UNITS</b>
Collector-Base Voltage	V <sub>CB0</sub>	50	V
Collector-Emitter Voltage	V <sub>CEO</sub>	25	V
Emitter-Base Voltage	V <sub>EBO</sub>	7.0	V
Collector Current	I <sub>C</sub>	5.0	A
Base Current	I <sub>B</sub>	1.0	A
Power Dissipation	P <sub>D</sub>	2.0	W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	θ <sub>JA</sub>	62.5	°C/W

**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS</b>
I <sub>CBO</sub>	V <sub>CB</sub> =50V			1.0	μA
I <sub>EBO</sub>	V <sub>EB</sub> =7.0V			1.0	μA
BV <sub>CEO</sub>	I <sub>C</sub> =10mA	25			V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =3.0A, I <sub>B</sub> =150mA			0.35	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =4.0A, I <sub>B</sub> =200mA			0.50	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =3.0A, I <sub>B</sub> =150mA			1.10	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =4.0A, I <sub>B</sub> =200mA			1.40	V
h <sub>FE</sub>	V <sub>CE</sub> =2.0V, I <sub>C</sub> =500mA	250		550	
h <sub>FE</sub>	V <sub>CE</sub> =2.0V, I <sub>C</sub> =2.0A	150			
h <sub>FE</sub>	V <sub>CE</sub> =2.0V, I <sub>C</sub> =5.0A	50			
f <sub>T</sub>	V <sub>CE</sub> =6.0V, I <sub>C</sub> =50mA, f=200MHz		150		MHz
C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1.0MHz			50	pF

**SOT-223 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

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

**MARKING CODE:**

**FULL PART NUMBER**

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0°	7°	0°	7°
B	0.063	0.067	1.60	1.70
C	0.022		0.55	
D	0.001	0.004	0.03	0.10
E	15°		15°	
F	0.009	0.013	0.23	0.33
G	0.248	0.264	6.30	6.71
H	0.114	0.122	2.90	3.10
I	0.130	0.146	3.30	3.71
J	0.264	0.287	6.71	7.29
K	0.024	0.031	0.61	0.79
L	0.091		2.31	
M	0.181		4.60	

SOT-223 (REV: R2)

R3 (14-November 2002)