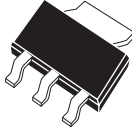


**CZT3150**

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

**POWER**  
**223**



**SOT-223 CASE**

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**

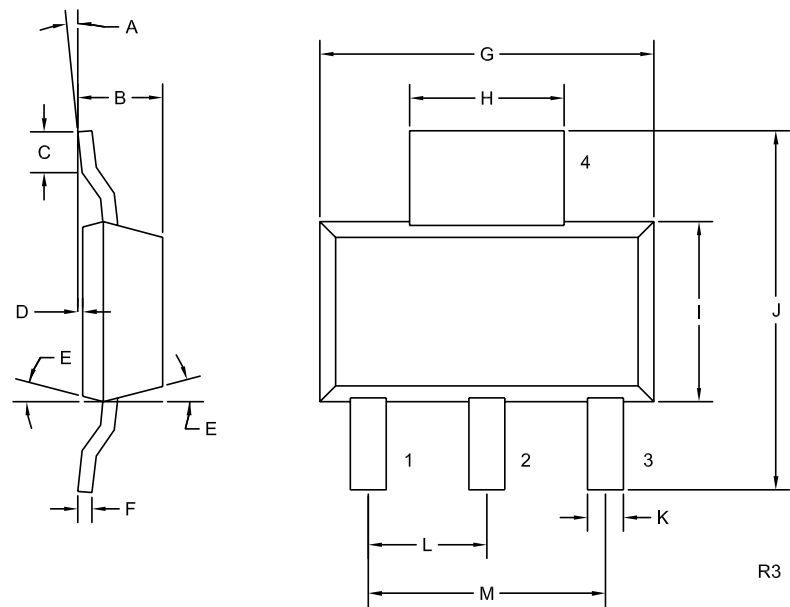
**MAXIMUM RATINGS:** (T<sub>A</sub>=25°C)

			UNITS
Collector-Base Voltage	V <sub>CBO</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)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
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</sub> (SAT)	I <sub>C</sub> =3.0A, I <sub>B</sub> =150mA			0.35	V
V <sub>CE</sub> (SAT)	I <sub>C</sub> =4.0A, I <sub>B</sub> =200mA			0.50	V
V <sub>BE</sub> (SAT)	I <sub>C</sub> =3.0A, I <sub>B</sub> =150mA			1.10	V
V <sub>BE</sub> (SAT)	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**

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)