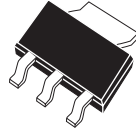




**CZT5401**

**SURFACE MOUNT  
PNP SILICON TRANSISTOR**



**SOT-223 CASE**

# Central<sup>TM</sup>

## Semiconductor Corp.

### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CZT5401 is a PNP silicon 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<sub>A</sub>=25°C)

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

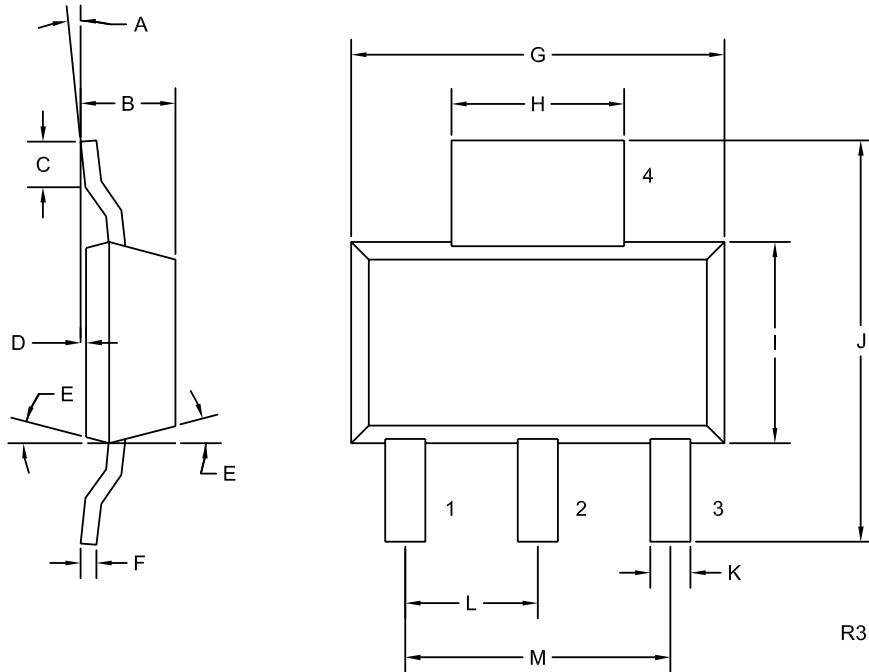
SYMBOL		UNITS
V <sub>CBO</sub>	160	V
V <sub>CEO</sub>	150	V
V <sub>EBO</sub>	5.0	V
I <sub>C</sub>	600	mA
P <sub>D</sub>	2.0	mW
T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
θ <sub>JA</sub>	62.5	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>CBO</sub>	V <sub>CB</sub> =120V		50	nA
I <sub>CBO</sub>	V <sub>CB</sub> =120V, T <sub>A</sub> =100°C		50	μA
I <sub>EBO</sub>	V <sub>EB</sub> =3.0V		50	nA
BV <sub>CBO</sub>	I <sub>C</sub> =100μA	160		V
BV <sub>CEO</sub>	I <sub>C</sub> =1.0mA	150		V
BV <sub>EBO</sub>	I <sub>E</sub> =10μA	5.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1.0mA		0.2	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5.0mA		0.5	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1.0mA		1.0	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5.0mA		1.0	V
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA	50		
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA	60	240	
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =50mA	50		
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA, f=100MHz	100	300	MHz
C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1.0MHz		6.0	pF
h <sub>fe</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =1.0mA, f=1.0kHz	40	200	
N <sub>F</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =250μA, R <sub>S</sub> =1.0kΩ f=10Hz to 15.7kHz		8.0	dB

R5 (29-May 2009)

**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)

R5 (29-May 2009)