

CZTUX87

**SURFACE MOUNT  
HIGH VOLTAGE  
NPN SILICON POWER TRANSISTOR**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CZTUX87 type is a NPN Silicon Power Transistor epoxy molded in a surface mount package, designed for high voltage switching applications.



**MARKING: FULL PART NUMBER**

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

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

**SYMBOL**

V <sub>CEV</sub>	900
V <sub>CEO</sub>	450
V <sub>EBO</sub>	5.0
I <sub>C</sub>	0.5
I <sub>CM</sub>	1.0
I <sub>B</sub>	1.0
P <sub>D</sub>	2.0
T <sub>J</sub> , T <sub>stg</sub>	-65 to +150
θ <sub>JA</sub>	62.5

**UNITS**

V
V
V
A
A
A
W
°C
°C/W

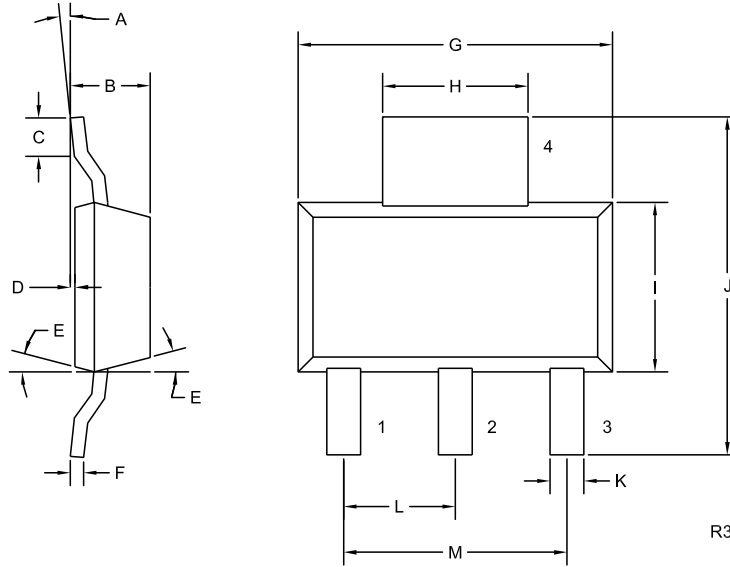
**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>CEV</sub>	V <sub>CE</sub> =900V, V <sub>BE</sub> =1.5V			100	µA
I <sub>CEV</sub>	V <sub>CE</sub> =900V, V <sub>BE</sub> =1.5V, T <sub>A</sub> =125°C			1.0	mA
I <sub>EBO</sub>	V <sub>EB</sub> =5.0V			1.0	mA
BV <sub>CEO</sub>	I <sub>C</sub> =30mA	450			V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA			0.8	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =200mA, I <sub>B</sub> =20mA			1.0	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =200mA, I <sub>B</sub> =20mA			1.0	V
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =40mA	12			
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =50mA, f=1.0MHz		20		MHz
t <sub>s</sub>	V <sub>CC</sub> =250V, I <sub>C</sub> =200mA, I <sub>B1</sub> =40mA, I <sub>B2</sub> =80mA		4.5		µs
t <sub>f</sub>	V <sub>CC</sub> =250V, I <sub>C</sub> =200mA, I <sub>B1</sub> =40mA, I <sub>B2</sub> =80mA		0.5		µs

**CZTUX87**  
**SURFACE MOUNT**  
**HIGH VOLTAGE**  
**NPN SILICON POWER TRANSISTOR**



**SOT-223 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

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

**MARKING:**  
**FULL PART NUMBER**

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)

R3 (1-March 2010)