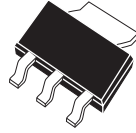


CZT122 NPN  
CZT127 PNP

**SURFACE MOUNT  
COMPLEMENTARY SILICON  
POWER DARLINGTON TRANSISTOR**

**POWER  
223**



**SOT-223 CASE**

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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CZT122, CZT127 types are Complementary Silicon Power Darlington Transistors manufactured in a surface mount package designed for low speed switching and amplifier applications.

**MARKING CODE: FULL PART NUMBER**

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

	SYMBOL		UNITS
Collector-Base Voltage	V <sub>CB0</sub>	100	V
Collector-Emitter Voltage	V <sub>CEO</sub>	100	V
Emitter-Base Voltage	V <sub>EBO</sub>	5.0	V
Collector Current	I <sub>C</sub>	5.0	A
Peak Collector Current	I <sub>CM</sub>	8.0	A
Base Current	I <sub>B</sub>	120	mA
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

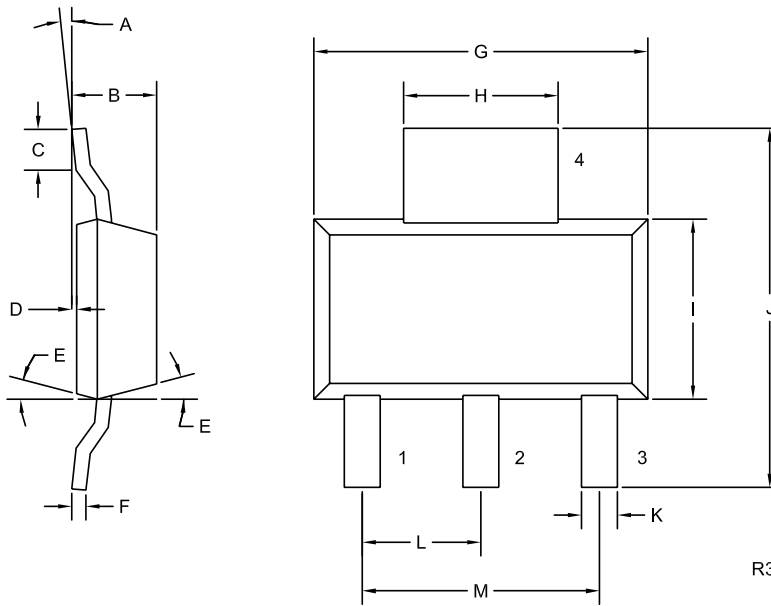
**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>CEO</sub>	V <sub>CE</sub> =50V		500	μA
I <sub>CBO</sub>	V <sub>CB</sub> =100V		200	μA
I <sub>EBO</sub>	V <sub>EB</sub> =5.0V		2.0	mA
BV <sub>CEO</sub>	I <sub>C</sub> =30mA	100		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =3.0A, I <sub>B</sub> =12mA		2.0	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =5.0A, I <sub>B</sub> =20mA		4.0	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =3.0A		2.5	V
h <sub>FE</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =500mA	1000		
h <sub>FE</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =3.0A	1000		
f <sub>T</sub>	V <sub>CE</sub> =4.0V, I <sub>C</sub> =3.0A, f=1.0MHz	4.0		MHz
C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1.0MHz (CZT122)		200	pF
C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1.0MHz (CZT127)		300	pF

R3 (17-June 2004)

**SURFACE MOUNT  
COMPLEMENTARY SILICON  
POWER DARLINGTON TRANSISTOR**

**SOT-223 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

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

**MARKING CODE:**

**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 (17-June 2004)