

CZT3090L

**SURFACE MOUNT
LOW V_{CE(SAT)} NPN
SILICON POWER TRANSISTOR**

**POWER
223™**



SOT-223 CASE

Central™
Semiconductor Corp.

www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CZT3090L is a Low V_{CE(SAT)} NPN Transistor in a space saving Power SOT-223 surface mount package, designed for DC-DC converters for mobile systems and LAN cards, motor control, power management and strobe flash units.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)

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

SYMBOL		UNITS
V _{CB0}	45	V
V _{CEO}	15	V
V _{EBO}	6.0	V
I _C	3.0	A
I _{CM}	6.0	A
P _D	2.0	W
T _J , T _{stg}	-65 to +150	°C
θ _{JA}	62.5	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CB0}	V _{CB} =20V			100	nA
I _{EBO}	V _{EB} =5.0V			100	nA
BV _{CB0}	I _C =10μA	45			V
BV _{CEO}	I _C =10mA	15			V
BV _{EBO}	I _E =10μA	6.0			V
V _{CE(SAT)}	I _C =100mA, I _B =1.0mA		30	50	mV
V _{CE(SAT)}	I _C =1.0A, I _B =20mA		60	150	mV
V _{CE(SAT)}	I _C =2.0A, I _B =200mA		85	200	mV
V _{CE(SAT)}	I _C =3.0A, I _B =60mA		145	300	mV
h _{FE}	V _{CE} =2.0V, I _C =500mA	200			
h _{FE}	V _{CE} =2.0V, I _C =1.0A	200			
h _{FE}	V _{CE} =2.0V, I _C =3.0A	175			
C _{ob}	V _{CB} =10V, f=1.0MHz			100	pF
f _T	V _{CE} =10V, I _C =500mA	100			MHz

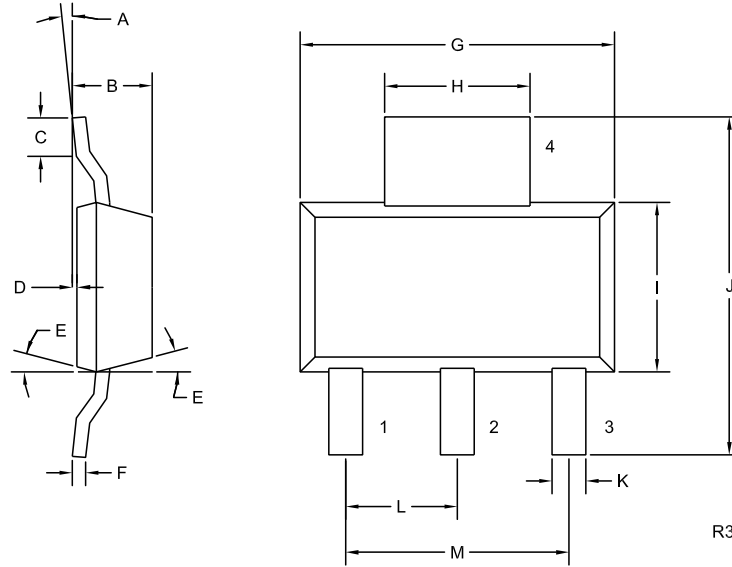
R3 (1-March 2010)

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SOT-223 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING:

FULL PART NUMBER

SYMBOL	DIMENSIONS		DIMENSIONS	
	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)

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