

CZT3019

**SURFACE MOUNT
NPN SILICON TRANSISTOR**



SOT-223 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CZT3019 type is an NPN silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high current general purpose amplifier applications.

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

V _{CB0}	140
V _{CEO}	80
V _{EBO}	7.0
I _C	1.0
I _{CM}	1.5
P _D	2.0
T _J , T _{stg}	-65 to +150
θ _{JA}	62.5

UNITS

V
V
V
A
A
W
°C
°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

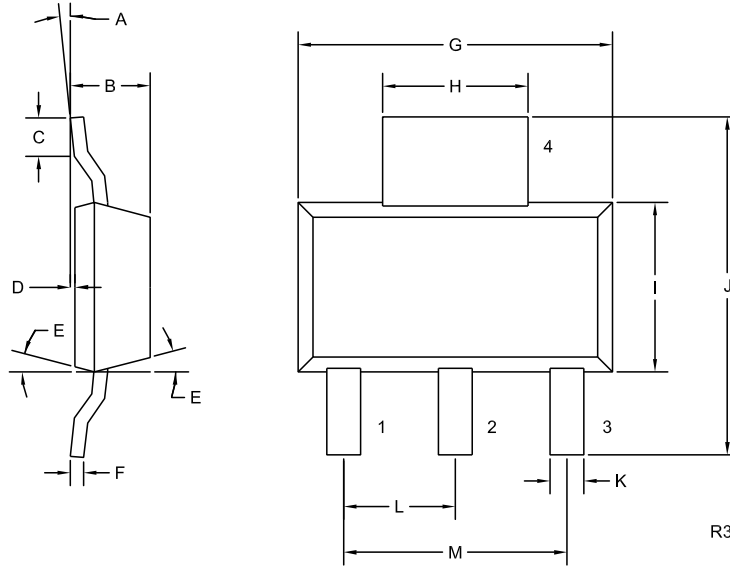
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CB0}	V _{CB} =90V		10	nA
I _{EBO}	V _{EB} =5.0V		10	nA
BV _{CB0}	I _C =100μA	140		V
BV _{CEO}	I _C =30mA	80		V
BV _{EBO}	I _E =100μA	7.0		V
V _{CE(SAT)}	I _C =150mA, I _B =15mA		0.2	V
V _{CE(SAT)}	I _C =500mA, I _B =50mA		0.5	V
V _{BE(SAT)}	I _C =150mA, I _B =15mA		1.1	V
h _{FE}	V _{CE} =10V, I _C =0.1mA	50		
h _{FE}	V _{CE} =10V, I _C =10mA	90		
h _{FE}	V _{CE} =10V, I _C =150mA	100	300	
h _{FE}	V _{CE} =10V, I _C =500mA	50		
h _{FE}	V _{CE} =10V, I _C =1.0A	15		
f _T	V _{CE} =10V, I _C =50mA, f=20MHz	100	400	MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		12	pF
C _{ib}	V _{EB} =0.5V, I _C =0, f=1.0MHz		60	pF
NF	V _{CE} =10V, I _C =100μA, R _S =1.0kΩ, f=1.0kHz		4.0	dB

R6 (9-November 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	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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