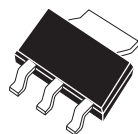


CZT3120
SURFACE MOUNT
NPN SILICON SWITCHING
POWER TRANSISTOR

POWER
223



SOT-223 CASE

CentralTM

Semiconductor Corp.

DESCRIPTION:

The Central Semiconductor CZT3120 NPN Switching Power Transistor, manufactured by the epitaxial planar process, combines both power and high speed switching characteristics in a SOT-223 Surface Mount Package. Typical applications include drivers, DC-DC converters, and general fast switching applications.

MARKING CODE: FULL PART NUMBER

MAXIMUM RATINGS (T_A=25°C)

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

SYMBOL

V_{CBO} 120
 V_{CEO} 70
 V_{EBO} 7.0
 I_C 3.0
 P_D 2.0
 T_J, T_{stg} -65 to +150
 Θ_{JA} 62.5

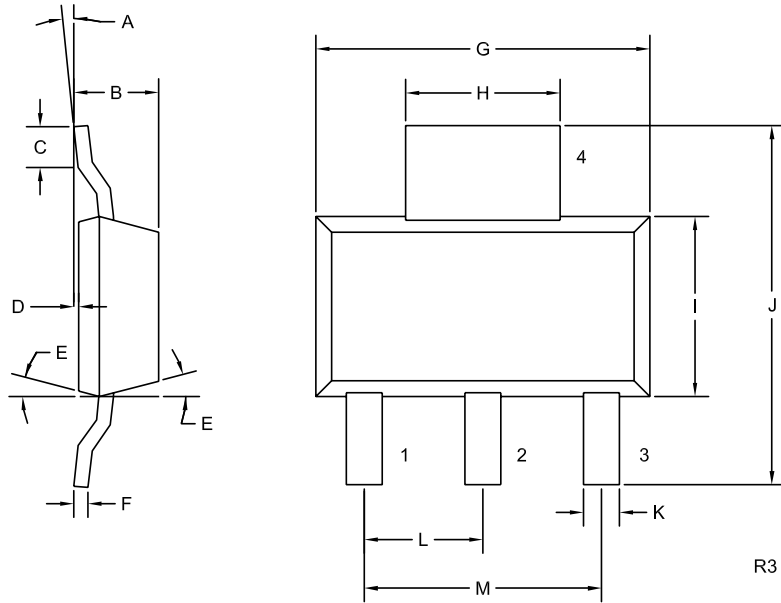
UNITS

V
 V
 V
 A
 W
 °C
 °C/W

ELECTRICAL CHARACTERISTICS(T_A=25°C)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CBO}	V _{CB} =80V			1.0	μA
I _{EBO}	V _{EB} =5.0V			1.0	μA
BV _{CBO}	I _C =50μA	120	160		V
BV _{CEO}	I _C =10mA	70	90		V
BV _{EBO}	I _E =50μA	7.0	15		V
V _{CE(SAT)}	I _C =2.0A, I _B =200mA		250	500	mV
V _{BE(ON)}	I _C =2.0A, V _{CE} =1.0V		0.95	1.1	V
h _{FE}	V _{CE} =5.0V, I _C =10mA	100	170		
h _{FE}	V _{CE} =5.0V, I _C =500mA	100	165	300	
h _{FE}	V _{CE} =5.0V, I _C =3.0A	40	75		
f _T	V _{CE} =10V, I _C =500mA, f=1.0MHz	8.0			MHz

SOT-223 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODE:

FULL PART NUMBER

SYMBOL	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)

R2 (17-June 2004)