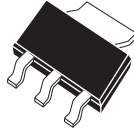


CZT5338

**SURFACE MOUNT
NPN SILICON
POWER TRANSISTOR**

**POWER
223**



SOT-223 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CZT5338 type is an NPN silicon power transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for applications requiring extremely high current amplification and switching capability.

MARKING CODE: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)

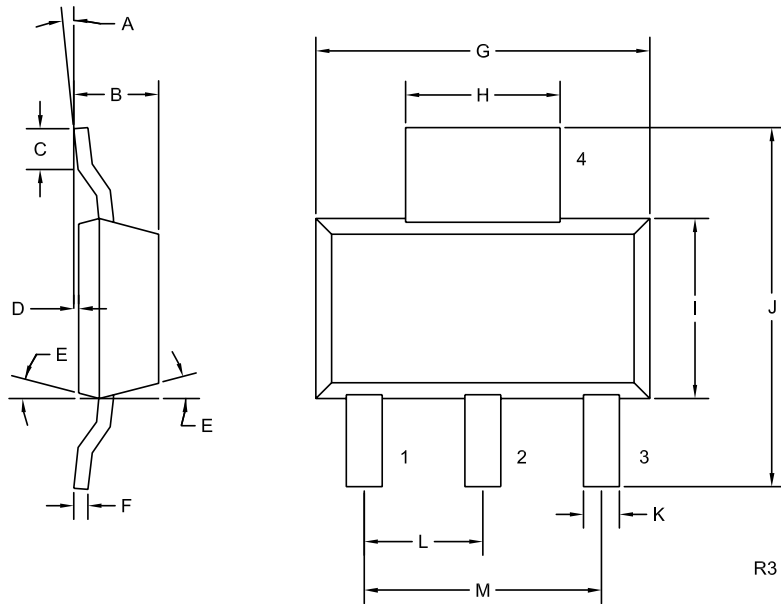
	SYMBOL		UNITS
Collector-Base Voltage	V _{CBO}	100	V
Collector-Emitter Voltage	V _{CEO}	100	V
Emitter-Base Voltage	V _{EBO}	6.0	V
Continuous Collector Current	I _C	5.0	A
Base Current	I _B	1.0	A
Power Dissipation	P _D	2.0	W
Operating and Storage			
Junction Temperature	T _J , T _{stg}	-65 to +150	°C
Thermal Resistance	θ _{JA}	62.5	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} =100V		10	μA
I _{EBO}	V _{BE} =6.0V		100	μA
I _{CEO}	V _{CE} =90V		100	μA
BV _{CEO}	I _C =50mA	100		V
V _{CE(SAT)}	I _C =2.0A, I _B =200mA		0.7	V
V _{CE(SAT)}	I _C =5.0A, I _B =500mA		1.2	V
V _{BE(SAT)}	I _C =2.0A, I _B =200mA		1.2	V
V _{BE(SAT)}	I _C =5.0A, I _B =500mA		1.8	V
h _{FE}	V _{CE} =2.0V, I _C =500mA	30		
h _{FE}	V _{CE} =2.0V, I _C =2.0A	30	120	
h _{FE}	V _{CE} =2.0V, I _C =5.0A	20		
f _T	V _{CE} =10V, I _C =500mA, f=10MHz	30		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		250	pF
C _{ib}	V _{BE} =2.0V, I _C =0, f=1.0MHz		1000	pF
t _d	V _{CC} =40V, V _{BE} =3.0V, I _C =2.0A, I _{B1} =200mA		100	ns
t _r	V _{CC} =40V, V _{BE} =3.0V, I _C =2.0A, I _{B1} =200mA		100	ns
t _s	V _{CC} =40V, I _C =2.0A, I _{B1} =I _{B2} =200mA		2.0	μs
t _f	V _{CC} =40V, I _C =2.0A, I _{B1} =I _{B2} =200mA		200	ns

R4 (17-June 2004)

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)

R4 (17-June 2004)