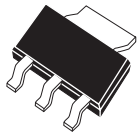
CZT2000

NPN SILICON
EXTREMELY HIGH VOLTAGE
DARLINGTON TRANSISTOR



SOT-223 CASE

Central™
Semiconductor Corp.

DESCRIPTION:
The CENTRAL SEMICONDUCTOR CZT2000 type is an NPN Epitaxial Planar Silicon darlington transistor manufactured in an epoxy molded surface mount package, designed for applications requiring extremely high voltages and high gain capability.

MARKING CODE: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	200	V
Collector-Emitter Voltage	V_{CES}	200	V
Emitter-Base Voltage	V_{EBO}	10	V
Collector Current	I_C	600	mA
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}=180V		500	nA
I_{EBO}	V_{BE}=10V		100	nA
BV_{CES}	I_C=1.0mA	200		V
$V_{CE(SAT)}$	I_C=20mA, I_B=25µA		0.9	V
$V_{CE(SAT)}$	I_C=80mA, I_B=40µA		1.1	V
$V_{CE(SAT)}$	I_C=160mA, I_B=100µA		1.2	V
$V_{BE(ON)}$	V_{CE}=5.0V, I_C=160µA		2.0	V
h_{FE}	V_{CE}=5.0V, I_C=100µA	3000		
h_{FE}	V_{CE}=5.0V, I_C=10mA	3000		
h_{FE}	V_{CE}=5.0V, I_C=160mA	3000		

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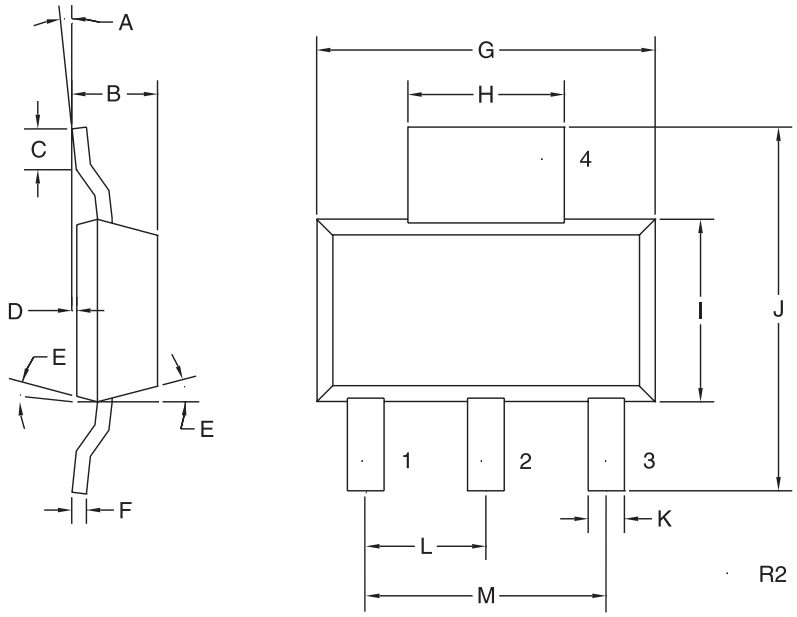
SOT-223 CASE - MECHANICAL OUTLINE



LEAD CODE:
1) BASE
2) COLLECTOR
3) EMITTER
4) COLLECTOR

MARKING CODE:
FULL PART NUMBER

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0°	7°	0°	7°
B	0.063	0.067	1.60	1.70
C	0.022		0.55	
D	0.001	0.004	0.03	0.10
E	15°		15°	
F	0.009	0.013	0.23	0.33
G	0.248	0.264	6.30	6.71
H	0.114	0.122	2.90	3.10
I	0.130	0.146	3.30	3.71
J	0.264	0.287	6.71	7.29
K	0.024	0.031	0.61	0.79
L	0.091		2.31	
M	0.181		4.60	

R3 (26-September 2002)