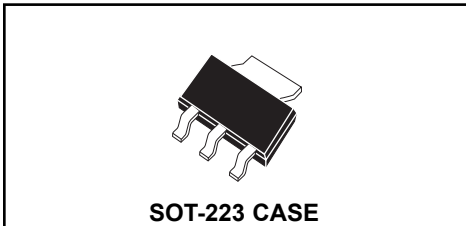


CZTA42 NPN
CZTA92 PNP

**SURFACE MOUNT
COMPLEMENTARY
HIGH VOLTAGE SILICON TRANSISTOR**



CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CZTA42, CZTA92 types are complementary surface mount epoxy molded silicon planar epitaxial transistors designed for high voltage applications.

MARKING CODE: FULL PART NUMBER

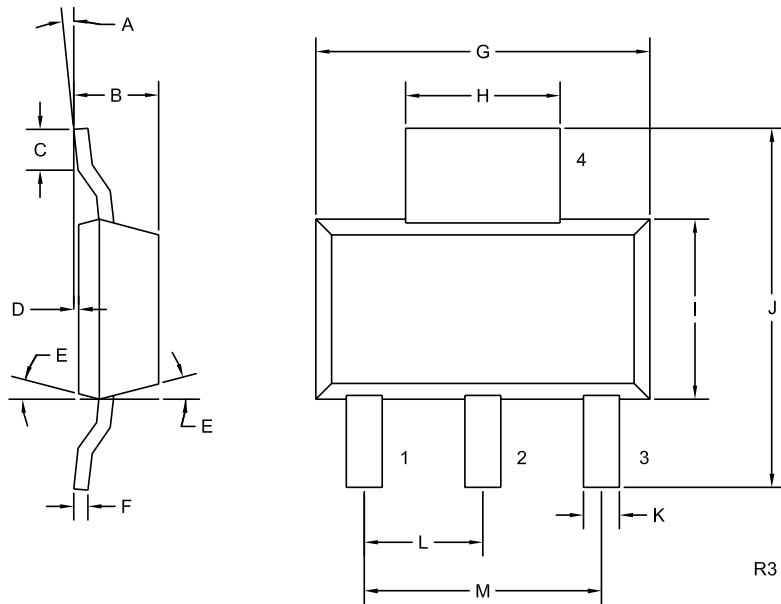
MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

	SYMBOL	CZTA42	CZTA92	UNITS
Collector-Base Voltage	V_{CBO}	300	300	V
Collector-Emitter Voltage	V_{CEO}	300	300	V
Emitter-Base Voltage	V_{EBO}	6.0	5.0	V
Continuous Collector Current	I_C		500	mA
Power Dissipation	P_D		2.0	W
Operating and Storage				
Junction Temperature	T_J, T_{stg}	-65 to +150		$^\circ\text{C}$
Thermal Resistance	θ_{JA}	62.5		$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	CZTA42		CZTA92		UNITS
		MIN	MAX	MIN	MAX	
I_{CBO}	$V_{CB}=200\text{V}$		100		250	nA
I_{EBO}	$V_{BE}=6.0\text{V}$		100		-	nA
I_{EBO}	$V_{BE}=3.0\text{V}$		-		100	nA
BV_{CBO}	$I_C=100\mu\text{A}$	300		300		V
BV_{CEO}	$I_C=1.0\text{mA}$	300		300		V
BV_{EBO}	$I_E=100\mu\text{A}$	6.0		5.0		V
$V_{CE(SAT)}$	$I_C=20\text{mA}, I_B=2.0\text{mA}$		0.5		0.5	V
$V_{BE(SAT)}$	$I_C=20\text{mA}, I_B=2.0\text{mA}$		0.9		0.9	V
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	25		25		
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	40		40		
h_{FE}	$V_{CE}=10\text{V}, I_C=30\text{mA}$	40		25		
f_T	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	50		50		MHz
C_{ob}	$V_{CB}=20\text{V}, I_E=0, f=1.0\text{MHz}$		3.0		6.0	pF

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)