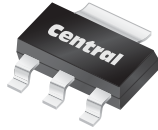


CZTA42 NPN  
CZTA92 PNP

**SURFACE MOUNT SILICON  
COMPLEMENTARY  
HIGH VOLTAGE TRANSISTORS**



**SOT-223 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

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

**MARKING: FULL PART NUMBER**

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

Collector-Base Voltage	$V_{CB0}$	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	$\theta_{JA}$		62.5	$^\circ\text{C}/\text{W}$

SYMBOL	CZTA42	CZTA92	UNITS
$V_{CB0}$	300	300	V
$V_{CEO}$	300	300	V
$V_{EBO}$	6.0	5.0	V
$I_C$		500	mA
$P_D$		2.0	W
$T_J, T_{stg}$		-65 to +150	$^\circ\text{C}$
$\theta_{JA}$		62.5	$^\circ\text{C}/\text{W}$

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

SYMBOL	TEST CONDITIONS	CZTA42		CZTA92		UNITS
		MIN	MAX	MIN	MAX	
$I_{CB0}$	$V_{CB}=200\text{V}$	-	100	-	250	nA
$I_{EBO}$	$V_{BE}=6.0\text{V}$	-	100	-	-	nA
$I_{EBO}$	$V_{BE}=3.0\text{V}$	-	-	-	100	nA
$BV_{CB0}$	$I_C=100\mu\text{A}$	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

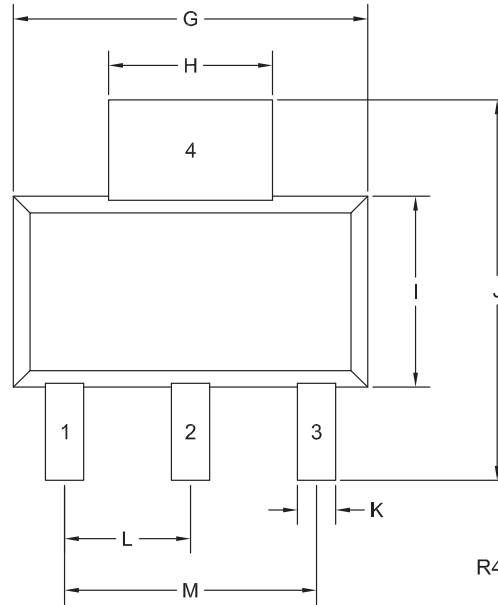
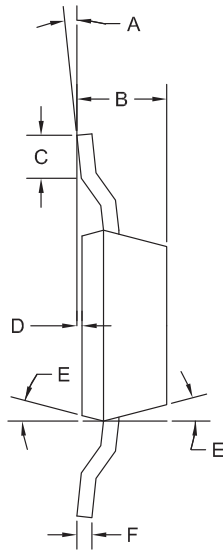
R4 (22-August 2017)

CZTA42 NPN  
CZTA92 PNP

SURFACE MOUNT SILICON  
COMPLEMENTARY  
HIGH VOLTAGE TRANSISTORS



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	10°		10°	
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: R4)

R4 (22-August 2017)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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