

**CMPTA96****SURFACE MOUNT  
EXTREMELY HIGH VOLTAGE  
PNP SILICON TRANSISTOR**
[www.centralemi.com](http://www.centralemi.com)
**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPTA96 type is a surface mount epoxy molded PNP silicon planar epitaxial transistor designed for extremely high voltage applications.

**MARKING CODE: C96****SOT-23 CASE****MAXIMUM RATINGS: (T<sub>A</sub>=25°C)**

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

**SYMBOL**

V <sub>CB0</sub>	450
V <sub>CEO</sub>	450
V <sub>EBO</sub>	6.0
I <sub>C</sub>	500
P <sub>D</sub>	350
T <sub>J</sub> , T <sub>stg</sub>	-65 to +150
θ <sub>JA</sub>	357

**UNITS**

V
V
V
mA
mW
°C
°C/W

**ELECTRICAL CHARACTERISTICS: (T<sub>A</sub>=25°C unless otherwise noted)**

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>CB0</sub>	V <sub>CB</sub> =400V			100	nA
I <sub>EBO</sub>	V <sub>BE</sub> =4.0V			100	nA
BV <sub>CB0</sub>	I <sub>C</sub> =100μA	450	500		V
BV <sub>CEO</sub>	I <sub>C</sub> =1.0mA	450	490		V
BV <sub>EBO</sub>	I <sub>E</sub> =10μA	6.0	9.7		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =1.0mA, I <sub>B</sub> =0.1mA			0.20	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1.0mA			0.30	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5.0mA		0.15	0.50	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1.0mA			1.0	V
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =1.0mA	40			
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA	50	120	200	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =50mA	45			
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =100mA	25	35		
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA, f=10MHz	20			MHz
C <sub>ob</sub>	V <sub>CB</sub> =20V, I <sub>E</sub> =0, f=1.0MHz			7.0	pF
C <sub>ib</sub>	V <sub>EB</sub> =0.5V, I <sub>C</sub> =0, f=1.0MHz			130	pF

R3 (3-February 2010)

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**SOT-23 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Base
- 2) Emitter
- 3) Collector

**MARKING CODE: C96**

<b>DIMENSIONS</b>				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

R3 (3-February 2010)

## 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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