

CZTUX87

**SURFACE MOUNT SILICON
HIGH VOLTAGE
NPN POWER TRANSISTOR**

**POWER
223™**



SOT-223 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CZTUX87 is a silicon NPN power transistor epoxy molded in a surface mount package, designed for high voltage switching applications.

MARKING: FULL PART NUMBER

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

Collector-Emitter Voltage

Collector-Emitter Voltage

Emitter-Base Voltage

Continuous Collector Current

Peak Collector Current

Continuous Base Current

Power Dissipation

Operating and Storage Junction Temperature

Thermal Resistance

SYMBOL

V_{CEV}

V_{CEO}

V_{EBO}

I_C

I_{CM}

I_B

P_D

T_J, T_{stg}

Θ_{JA}

900

450

5.0

0.5

1.0

1.0

2.0

-65 to +150

62.5

UNITS

V

V

V

A

A

A

W

$^\circ\text{C}$

$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CEV}	$V_{CE}=900\text{V}, V_{BE}=1.5\text{V}$			100	μA
I_{CEV}	$V_{CE}=900\text{V}, V_{BE}=1.5\text{V}, T_A=125^\circ\text{C}$			1.0	mA
I_{EBO}	$V_{EB}=5.0\text{V}$			1.0	mA
BV_{CEO}	$I_C=30\text{mA}$	450			V
$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$			0.8	V
$V_{CE(SAT)}$	$I_C=200\text{mA}, I_B=20\text{mA}$			1.0	V
$V_{BE(SAT)}$	$I_C=200\text{mA}, I_B=20\text{mA}$			1.0	V
h_{FE}	$V_{CE}=5.0\text{V}, I_C=40\text{mA}$	12			
f_T	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=1.0\text{MHz}$		20		MHz
t_s	$V_{CC}=250\text{V}, I_C=200\text{mA}, I_{B1}=40\text{mA}, I_{B2}=80\text{mA}$		4.5		μs
t_f	$V_{CC}=250\text{V}, I_C=200\text{mA}, I_{B1}=40\text{mA}, I_{B2}=80\text{mA}$		0.5		μs

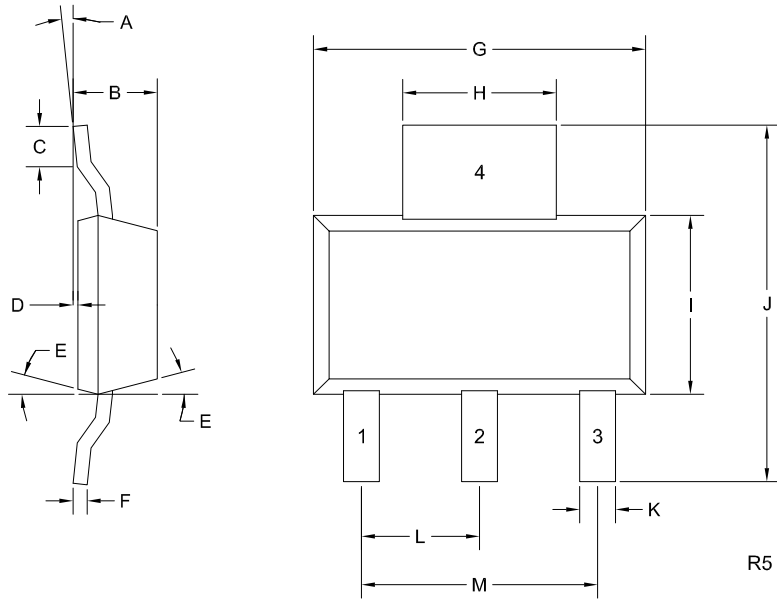
R5 (7-May 2019)

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SOT-223 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING:

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	10°		10°	
F	0.009	0.014	0.23	0.35
G	0.248	0.270	6.30	6.85
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: R5)

R5 (7-May 2019)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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

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).

CONTACT US

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Worldwide Distributors:
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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centalsemi.com/terms



<http://www.centrasemi.com>

Product End of Life Notification

PDN ID:	PDN01107 Rev:001
Notification Date:	11/02/18
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. We are unable to accept any further orders for these products unless we have available inventory on hand.

You may have purchased one or more of the products listed. Please do not hesitate to contact your local Central Semiconductor sales representative with any questions or needs you may have. Central regrets any inconvenience this may cause.

Sincerely,

Central Semiconductor Corp.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.



<http://www.centrasemi.com>

Product End of Life Notification

PDN ID:	PDN01107 Rev:001
Notification Date:	11/02/18
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Summary: The CP250 high voltage power transistor wafer process is discontinued and is now classified as End of Life (EOL). Revision 001 issued to reflect stock only.

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

<u>Central Part Number</u>	<u>Replacement</u>
CEN1072B BK	N/A, Stock Only
CEN1072B TR	N/A, Stock Only
CP250-CZTUX87-WN	N/A, Stock Only
CZTUX87 BK	N/A, Stock Only
CZTUX87 TR	N/A, Stock Only

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centrasemi.com.

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