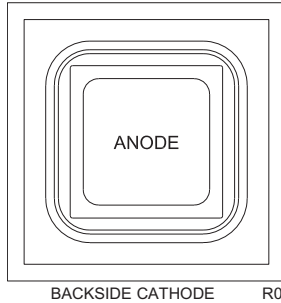


The CPZ28X-BZX55C3V3 thru CPZ28X-BZX55C33 are silicon Zener diodes ideal for all types of commercial, industrial, entertainment, and computer applications.



**MECHANICAL SPECIFICATIONS:**

Die Size	13 x 13 MILS
Die Thickness	5.5 MILS
Anode Bonding Pad Size	7.0 x 7.0 MILS
Top Side Metalization	Al – 13,000Å
Back Side Metalization	Au – 12,000Å
Scribe Alley Width	1.77 MILS
Wafer Diameter	6 INCHES
Gross Die Per Wafer	145,998

**MAXIMUM RATINGS:**

Operating and Storage Junction Temperature

**SYMBOL**

$T_J, T_{stg}$

-65 to +150

**UNITS**

°C

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$ )  $V_F=1.0\text{V MAX @ } I_F=100\text{mA}$  (for all types)

Type	Zener Voltage $V_Z @ I_{ZT}$			Test Current $I_{ZT}$	Maximum Zener Impedance			Maximum Reverse Current		Maximum Zener Current $I_{ZM}$	Maximum Temperature Coefficient $\Theta_{VZ}$
	MIN	NOM	MAX		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$			
	V	V	V	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	V	mA	% / °C
CPZ28X-BZX55C3V3	3.1	3.3	3.5	5.0	85	600	1.0	2.0	1.0	115	-0.060
CPZ28X-BZX55C3V6	3.4	3.6	3.8	5.0	85	600	1.0	2.0	1.0	105	-0.055
CPZ28X-BZX55C3V9	3.7	3.9	4.1	5.0	85	600	1.0	2.0	1.0	95	-0.050
CPZ28X-BZX55C4V3	4.0	4.3	4.6	5.0	75	600	1.0	1.0	1.0	90	-0.040
CPZ28X-BZX55C4V7	4.4	4.7	5.0	5.0	60	600	1.0	0.5	1.0	85	-0.020
CPZ28X-BZX55C5V1	4.8	5.1	5.4	5.0	35	550	1.0	0.1	1.0	80	+0.010
CPZ28X-BZX55C5V6	5.2	5.6	6.0	5.0	25	450	1.0	0.1	1.0	70	+0.025
CPZ28X-BZX55C6V2	5.8	6.2	6.6	5.0	10	200	1.0	0.1	2.0	64	+0.032
CPZ28X-BZX55C6V8	6.4	6.8	7.2	5.0	8.0	150	1.0	0.1	3.0	58	+0.040
CPZ28X-BZX55C7V5	7.0	7.5	7.9	5.0	7.0	50	1.0	0.1	5.0	53	+0.045
CPZ28X-BZX55C8V2	7.7	8.2	8.7	5.0	7.0	50	1.0	0.1	6.2	47	+0.048
CPZ28X-BZX55C9V1	8.5	9.1	9.6	5.0	10	50	1.0	0.1	6.8	43	+0.050
CPZ28X-BZX55C10	9.4	10.0	10.6	5.0	15	70	1.0	0.1	7.5	40	+0.055
CPZ28X-BZX55C11	10.4	11.0	11.6	5.0	20	70	1.0	0.1	8.2	36	+0.060
CPZ28X-BZX55C12	11.4	12	12.7	5.0	20	90	1.0	0.1	9.1	32	+0.065

R0 (10-September 2021)

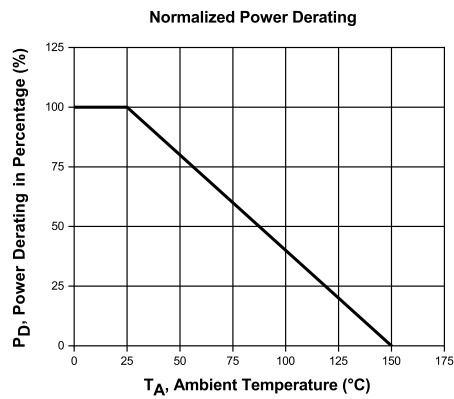
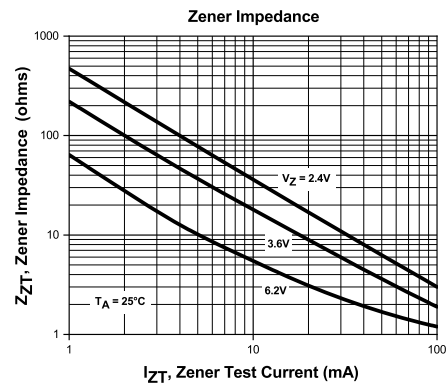
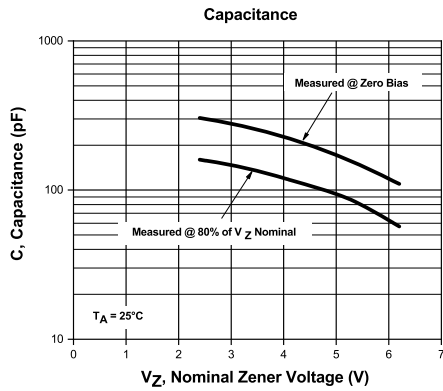
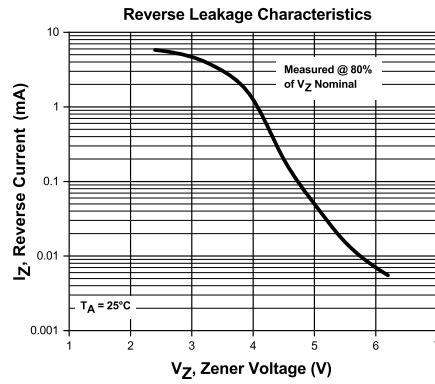
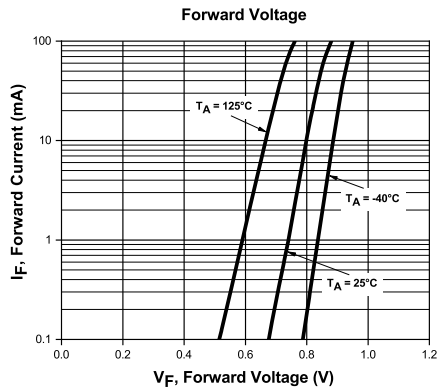
**CPZ28X-BZX55C3V3 THRU  
CPZ28X-BZX55C33  
Zener Diode Die  
500mW, 3.3 THRU 33 VOLT**



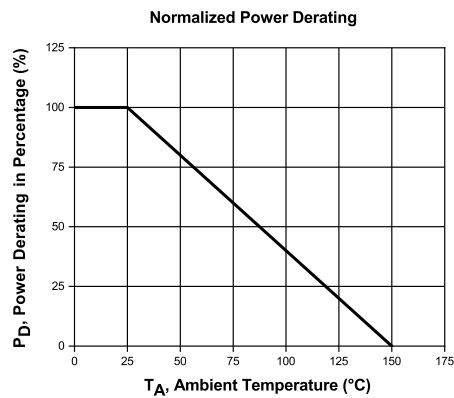
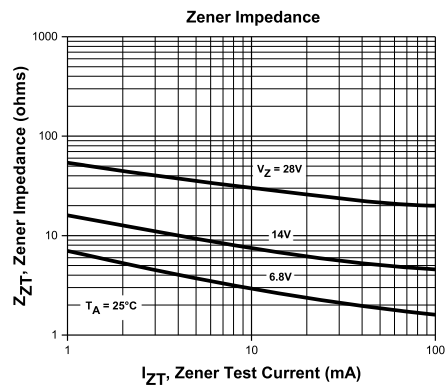
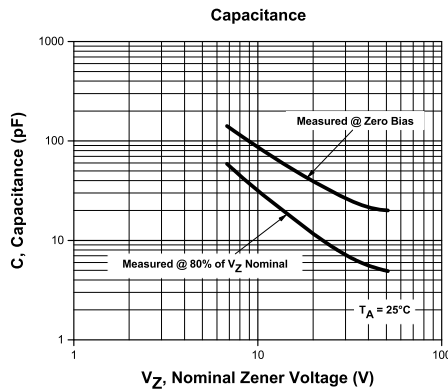
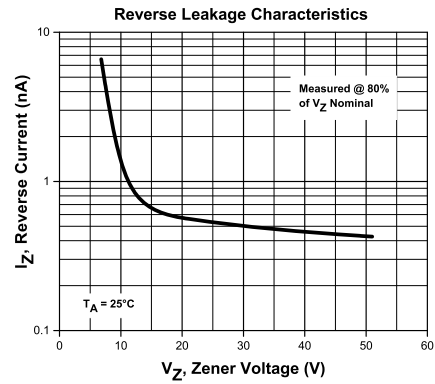
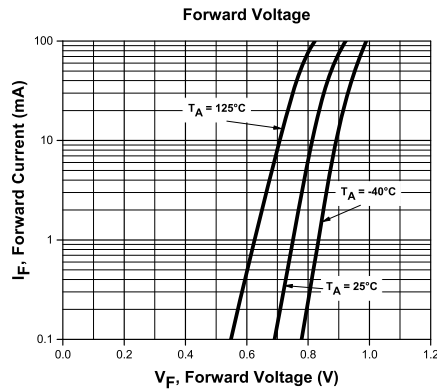
**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^{\circ}\text{C}$ )  $V_F=1.0\text{V MAX @ } I_F=100\text{mA}$  (for all types)

Type	Zener Voltage $V_Z @ I_{ZT}$			Test Current	Maximum Zener Impedance			Maximum Reverse Current		Maximum Zener Current	Maximum Temperature Coefficient
	MIN	NOM	MAX	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		$I_{ZM}$	$\ominus V_Z$
	V	V	V	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	V	mA	% / $^{\circ}\text{C}$
CPZ28X-BZX55C13	12.4	13	14.1	5.0	26	110	1.0	0.1	10	29	+0.070
CPZ28X-BZX55C15	13.8	15	15.6	5.0	30	110	1.0	0.1	11	27	+0.070
CPZ28X-BZX55C16	15.3	16	17.1	5.0	40	170	1.0	0.1	12	24	+0.075
CPZ28X-BZX55C18	16.8	18	19.1	5.0	50	170	1.0	0.1	13	21	+0.075
CPZ28X-BZX55C20	18.8	20	21.1	5.0	55	220	1.0	0.1	15	20	+0.080
CPZ28X-BZX55C22	20.8	22	23.3	5.0	55	220	1.0	0.1	16	18	+0.080
CPZ28X-BZX55C24	22.8	24	25.6	5.0	80	220	1.0	0.1	18	16	+0.080
CPZ28X-BZX55C27	25.1	27	28.9	5.0	80	220	1.0	0.1	20	14	+0.085
CPZ28X-BZX55C30	28.0	30	32.0	5.0	80	220	1.0	0.1	22	13	+0.085
CPZ28X-BZX55C33	31.0	33	35.0	5.0	80	220	1.0	0.1	24	12	+0.085

CPZ28X-BZX55C3V3 THRU  
 CPZ28X-BZX55C6V2  
 Typical Electrical Characteristics

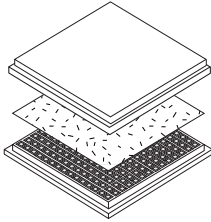


CPZ28X-BZX55C6V8 THRU  
 CPZ28X-BZX55C33  
 Typical Electrical Characteristics



## BARE DIE PACKING OPTIONS

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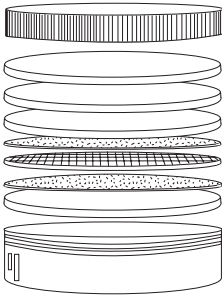


### BARE DIE IN TRAY (WAFFLE) PACK

**CT:** Singulated die in tray (waffle) pack.  
(example: CP211-PART NUMBER-CT)

**CM:** Singulated die in tray (waffle) pack 100% visually inspected as per MIL-STD-750, (method 2072 transistors, method 2073 diodes).  
(example: CP211-PART NUMBER-CM)

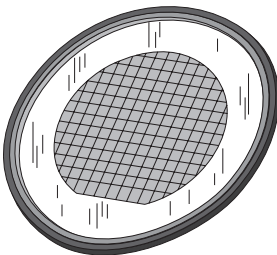
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### UNSAWN WAFER

**WN:** Full wafer, unsawn, 100% tested with reject die inked.  
(example: CP211-PART NUMBER-WN)

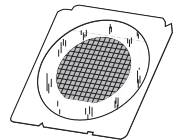
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### SAWN WAFER ON PLASTIC RING

**WR:** Full wafer, sawn and mounted on plastic ring,  
100% tested with reject die inked.  
(example: CP211-PART NUMBER-WR)

Please note: Sawn Wafer on Metal Frame (WS) is possible as a special order. Please contact your Central Sales Representative at 631-435-1110.



Visit the Central website for a complete listing of specifications:  
[www.centrasemi.com/bdspecs](http://www.centrasemi.com/bdspecs)

## 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

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

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



# Product End of Life Notification

<b>PDN ID:</b>	PDN01257
<b>Notification Date:</b>	5/31/23
<b>Last Buy Date:</b>	Stock Only
<b>Last Shipment Date:</b>	Stock Only

<https://www.centrasemi.com>

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. Orders can only be accepted for products with 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.

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DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor 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.



<https://www.centrasemi.com>

# Product End of Life Notification

PDN ID:	PDN01257
Notification Date:	5/31/23
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Summary: The CPZ28X chip process is discontinued and the following items are now classified as End of Life (EOL).

Although Central Semiconductor 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 Portfolio Management. 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.

**\* All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.**

Central Part Number	Suggested Replacement
CPZ28X-BZX55C3V3-CM	CPZ58X-BZX55C3V3-CM
CPZ28X-BZX55C3V3-CT	CPZ58X-BZX55C3V3-CT
CPZ28X-BZX55C3V3-WN	CPZ58X-BZX55C3V3-WN
CPZ28X-BZX55C6V8-CT	CPZ58X-BZX55C6V8-CT
CPZ28X-BZX55C6V8-WN	CPZ58X-BZX55C6V8-WN
CPZ28X-BZX84B5V1-CT	CPZ58X-BZX84B5V1-CT
CPZ28X-BZX84B5V1-WN	CPZ58X-BZX84B5V1-WN
CPZ28X-CMPZ5226B-WR	CPZ58X-CMPZ5226B-WR
CPZ28X-CMPZ5235B-CT	CPZ58X-CMPZ5235B-CT
CPZ28X-CMPZ5235B-WN	CPZ58X-CMPZ5235B-WN
CPZ28X-C5235B-CT20	N/A
CPZ28X-1N4099-CT	CPZ58X-1N4099-CT
CPZ28X-1N4099-WN	CPZ58X-1N4099-WN
CPZ28X-1N4623-CT	CPZ58X-1N4623-CT
CPZ28X-1N4623-WN	CPZ58X-1N4623-WN
CPZ28X-1N4692-CT	CPZ58X-1N4692-CT
CPZ28X-1N4692-WN	CPZ58X-1N4692-WN
CPZ28X-1N5237B-CT	CPZ58X-1N5237B-CT
CPZ28X-1N968B-WN	CPZ59X-1N968B-WN

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. If you would like assistance, please visit <https://my.centrasemi.com/submit-inquiry?type=ER> to submit an online inquiry.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor 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.