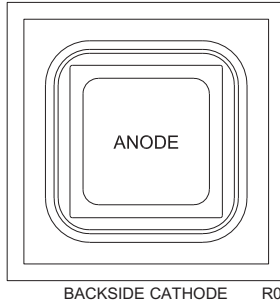


The CPZ28X-1N957B thru CPZ28X-1N922B are silicon Zener diodes ideal for all types of commercial, industrial, entertainment, and computer applications.



**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	Ti/Al – 13,000Å
Back Side Metalization	Au-As – 9,000Å
Scribe Alley Width	1.97 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	101,184

**MAXIMUM RATINGS:**

Operating and Storage Junction Temperature

**SYMBOL**

$T_J, T_{stg}$

-65 to +150

**UNITS**

°C

**ELECTRICAL CHARACTERISTICS: ( $T_A=25^\circ\text{C}$ )  $V_F=1.5\text{V MAX @ } I_F=200\text{mA}$  (for all types)**

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT $I_{ZT}$ mA	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT $I_{ZM}$ mA
	MIN	NOM	MAX		$Z_{ZT} @ I_{ZT}$ $\Omega$	$Z_{ZK} @ I_{ZK}$ $\Omega$	$I_R @ V_R$ $\mu\text{A}$	$V$		
	V	V	V							
CPZ28X-1N957B	6.460	6.8	7.140	18.5	4.5	700	1.00	150	5.2	47
CPZ28X-1N958B	7.125	7.5	7.875	16.5	5.5	700	0.50	75	5.7	42
CPZ28X-1N959B	7.790	8.2	8.610	15.0	6.5	700	0.50	50	6.2	38
CPZ28X-1N960B	8.645	9.1	9.555	14.0	7.5	700	0.50	25	6.9	35
CPZ28X-1N961B	9.500	10	10.50	12.5	8.5	700	0.25	10	7.6	32
CPZ28X-1N962B	10.45	11	11.55	11.5	9.5	700	0.25	5.0	8.4	28
CPZ28X-1N963B	11.40	12	12.60	10.5	11.5	700	0.25	5.0	9.1	26
CPZ28X-1N964B	12.35	13	13.65	9.5	13.0	700	0.25	5.0	9.9	24
CPZ28X-1N965B	14.25	15	15.75	8.5	16.0	700	0.25	5.0	11.4	21
CPZ28X-1N966B	15.20	16	16.80	7.8	17.0	700	0.25	5.0	12.2	19
CPZ28X-1N967B	17.10	18	18.90	7.0	21.0	750	0.25	5.0	13.7	17
CPZ28X-1N968B	19.00	20	21.00	6.2	25.0	750	0.25	5.0	15.2	15
CPZ28X-1N969B	20.90	22	23.10	5.6	29.0	750	0.25	5.0	16.7	14
CPZ28X-1N970B	22.80	24	25.20	5.2	33.0	750	0.25	5.0	18.2	13
CPZ28X-1N971B	25.65	27	28.35	4.6	41.0	750	0.25	5.0	20.6	11
CPZ28X-1N972B	28.50	30	31.50	4.2	49.0	1000	0.25	5.0	22.8	10
CPZ28X-1N973B	31.35	33	34.65	3.8	58.0	1000	0.25	5.0	25.1	9.2
CPZ28X-1N974B	34.20	36	37.80	3.4	70.0	1000	0.25	5.0	27.4	8.5
CPZ28X-1N975B	37.05	39	40.95	3.2	80.0	1000	0.25	5.0	29.7	7.8
CPZ28X-1N976B	40.85	43	45.15	3.0	93.0	1500	0.25	5.0	32.7	7.0
CPZ28X-1N977B	44.65	47	49.35	2.7	105	1500	0.25	5.0	35.8	6.4
CPZ28X-1N978B	48.45	51	53.55	2.5	125	2000	0.25	5.0	38.8	5.9
CPZ28X-1N979B	53.20	56	58.80	2.2	150	2000	0.25	5.0	42.6	5.4
CPZ28X-1N980B	58.90	62	65.10	2.0	185	2000	0.25	5.0	47.1	4.9
CPZ28X-1N981B	64.60	68	71.40	1.8	230	2000	0.25	5.0	51.7	4.5
CPZ28X-1N982B	71.25	75	78.75	1.7	270	2000	0.25	5.0	56.0	4.0

R0 (7-August 2017)

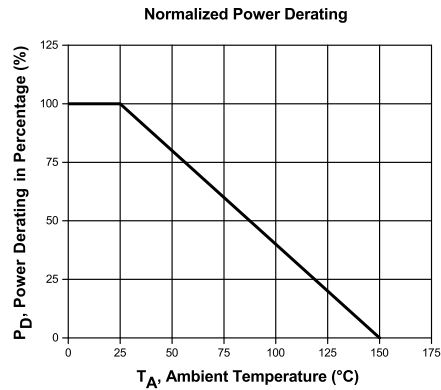
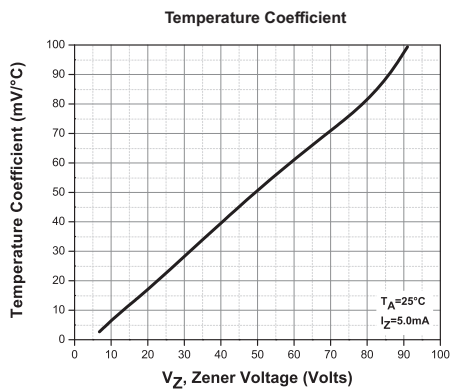
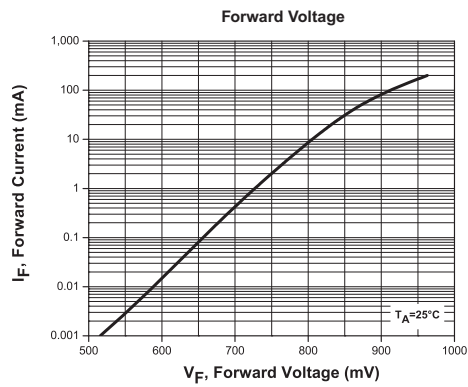
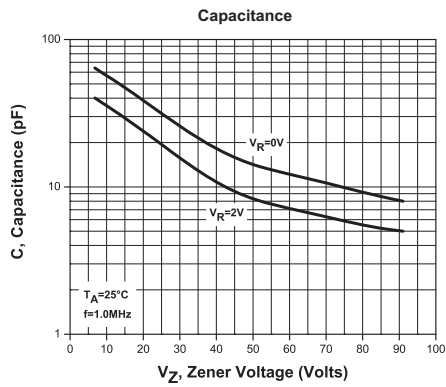
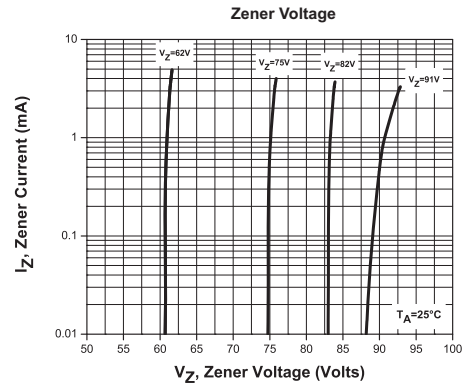
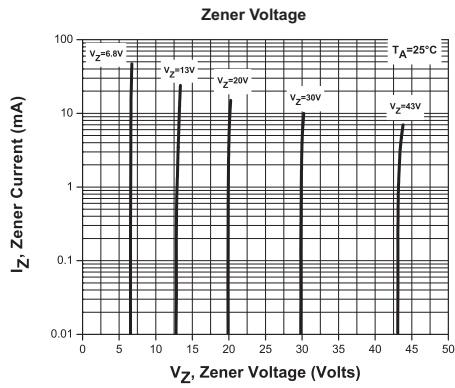
CPZ28X-1N957B THRU  
 CPZ28X-1N992B  
 Zener Diode Die  
 500mW, 6.8 THRU 200 VOLT



ELECTRICAL CHARACTERISTICS - Continued: ( $T_A=25^\circ\text{C}$ )  $V_F=1.5\text{V MAX @ } I_F=200\text{mA}$  (for all types)

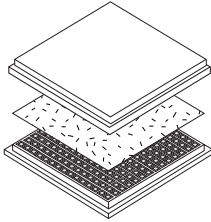
TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT
	MIN	NOM	MAX		$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$	$I_{ZM}$	
	V	V	V	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	V	mA
CPZ28X-1N983B	77.90	82	86.10	1.5	330	3000	0.25	5.0	62.2	3.7
CPZ28X-1N984B	86.45	91	95.55	1.4	400	3000	0.25	5.0	69.2	3.3
CPZ28X-1N985B	95.00	100	105.0	1.3	500	3000	0.25	5.0	76.0	3.0
CPZ28X-1N986B	104.5	110	115.5	1.1	750	4000	0.25	5.0	83.6	2.7
CPZ28X-1N987B	114.0	120	126.0	1.0	900	4500	0.25	5.0	91.2	2.5
CPZ28X-1N988B	123.5	130	136.5	0.95	1100	5000	0.25	5.0	98.8	2.3
CPZ28X-1N989B	142.5	150	157.5	0.85	1500	6000	0.25	5.0	114.0	2.0
CPZ28X-1N990B	152.0	160	168.0	0.80	1700	6500	0.25	5.0	121.6	1.9
CPZ28X-1N991B	171.0	180	189.0	0.68	2200	7100	0.25	5.0	136.8	1.7
CPZ28X-1N992B	190.0	200	210.0	0.65	2500	8000	0.25	5.0	152.0	1.5

CPZ28X-1N957B THRU  
 CPZ28X-1N992B  
 Typical Electrical Characteristics



## BARE DIE PACKING OPTIONS

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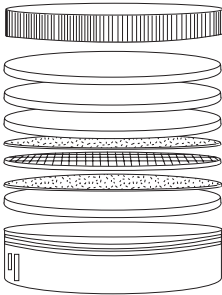


### BARE DIE IN TRAY (WAFFLE) PACK

**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)

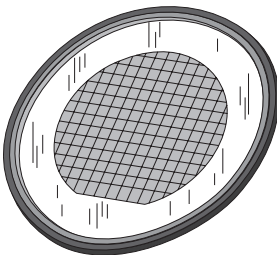
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### UNSAWN WAFER

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

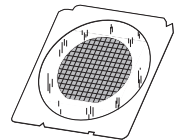
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### SAWN WAFER ON PLASTIC RING

**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

---

### 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.