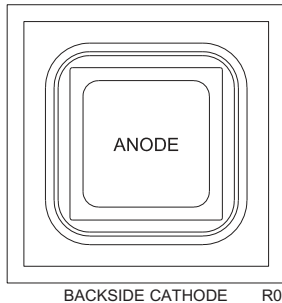


The CPZ28X-1N4099 thru CPZ28X-1N4135 are silicon Zener diodes ideal for all types of commercial, industrial, entertainment, and computer applications.



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: ($T_A=25^\circ\text{C}$) $V_F=1.1\text{V MAX @ } I_F=200\text{mA}$ (for all types)

Type	Zener Voltage $V_Z @ I_{ZT}$			Test Current I_{ZT}	Maximum Zener Impedance $Z_{ZT} @ I_{ZT}$	Maximum Reverse Current		Maximum Zener Current I_{ZM}	Maximum Noise Density $N_D @ 250\mu\text{A}$
	MIN	NOM	MAX			$I_R @ V_R$	V_R		
	V	V	V			μA	V		
CPZ28X-1N4099	6.460	6.8	7.140	250	200	10	5.2	35.0	40
CPZ28X-1N4100	7.125	7.5	7.875	250	200	10	5.7	31.8	40
CPZ28X-1N4101	7.790	8.2	8.610	250	200	1.0	6.3	29.0	40
CPZ28X-1N4102	8.265	8.7	9.135	250	200	1.0	6.7	27.4	40
CPZ28X-1N4103	8.645	9.1	9.555	250	200	1.0	7.0	26.2	40
CPZ28X-1N4104	9.50	10	10.50	250	200	1.0	7.6	24.8	40
CPZ28X-1N4105	10.45	11	11.55	250	200	0.05	8.5	21.6	40
CPZ28X-1N4106	11.40	12	12.60	250	200	0.05	9.2	20.4	40
CPZ28X-1N4107	12.35	13	13.65	250	200	0.05	9.9	19.0	40
CPZ28X-1N4108	13.30	14	14.70	250	200	0.05	10.7	17.5	40
CPZ28X-1N4109	14.25	15	15.75	250	100	0.05	11.4	16.3	40
CPZ28X-1N4110	15.20	16	16.80	250	100	0.05	12.2	15.4	40
CPZ28X-1N4111	16.15	17	17.85	250	100	0.05	13.0	14.5	40
CPZ28X-1N4112	17.10	18	18.90	250	100	0.05	13.7	13.2	40
CPZ28X-1N4113	18.05	19	19.95	250	150	0.05	14.5	12.5	40
CPZ28X-1N4114	19.00	20	21.00	250	150	0.01	15.2	11.9	40
CPZ28X-1N4115	20.90	22	23.10	250	150	0.01	16.8	10.8	40
CPZ28X-1N4116	22.80	24	25.20	250	150	0.01	18.3	9.9	40
CPZ28X-1N4117	23.75	25	26.25	250	150	0.01	19.0	9.5	40
CPZ28X-1N4118	25.65	27	28.35	250	150	0.01	20.5	8.8	40

**CPZ28X-1N4099 THRU
CPZ28X-1N4135
Zener Diode Die
250mW, 6.8 THRU 100 VOLT**

ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^{\circ}\text{C}$) $V_F=1.1\text{V MAX @ }I_F=200\text{mA}$ (for all types)

Type	Zener Voltage $V_Z @ I_{ZT}$			Test Current	Maximum Zener Impedance	Maximum Reverse Current		Maximum Zener Current	Maximum Noise Density
	MIN	NOM	MAX	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$I_R @ V_R$		I_{ZM}	$N_D @ 250\mu\text{A}$
	V	V	V	μA	Ω	μA	V	mA	$\mu\text{V}/\sqrt{\text{Hz}}$
CPZ28X-1N4119	26.60	28	29.40	250	200	0.01	21.3	8.5	40
CPZ28X-1N4120	28.50	30	31.50	250	200	0.01	22.8	7.9	40
CPZ28X-1N4121	31.35	33	34.65	250	200	0.01	25.1	7.2	40
CPZ28X-1N4122	34.20	36	37.80	250	200	0.01	27.4	6.6	40
CPZ28X-1N4123	37.05	39	40.95	250	200	0.01	29.7	6.1	40
CPZ28X-1N4124	40.85	43	45.15	250	250	0.01	32.7	5.5	40
CPZ28X-1N4125	44.65	47	49.35	250	250	0.01	35.8	5.1	40
CPZ28X-1N4126	48.45	51	53.55	250	300	0.01	38.8	4.6	40
CPZ28X-1N4127	53.20	56	58.80	250	300	0.01	42.6	4.2	40
CPZ28X-1N4128	57.00	60	63.00	250	400	0.01	45.6	4.0	40
CPZ28X-1N4129	58.90	62	65.10	250	500	0.01	47.1	3.8	40
CPZ28X-1N4130	64.60	68	71.40	250	700	0.01	51.7	3.5	40
CPZ28X-1N4131	71.25	75	78.75	250	700	0.01	57.0	3.1	40
CPZ28X-1N4132	77.90	82	86.10	250	800	0.01	62.4	2.9	40
CPZ28X-1N4133	82.65	87	91.35	250	1.0K	0.01	66.2	2.7	40
CPZ28X-1N4134	86.45	91	95.55	250	1.2K	0.01	69.2	2.6	40
CPZ28X-1N4135	95.00	100	105.0	250	1.5K	0.01	76.0	2.3	40

BARE DIE PACKING OPTIONS



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)



UNSAWN WAFER

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



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

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

Corporate Headquarters & Customer Support Team

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Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

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



Product End of Life Notification

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

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.