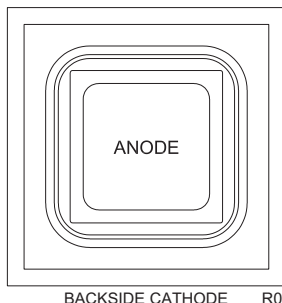


**CPZ59X-1N4110 THRU
CPZ59X-1N4131
Zener Diode Die
250mW, 16 THRU 75 VOLT**

The CPZ59X-1N4110 thru CPZ59X-1N4131 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	5.9 x 5.9 MILS
Top Side Metalization	Al – 20,000Å
Back Side Metalization	Au-As – 12,000Å
Scribe Alley Width	1.67 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: ($T_A=25^\circ\text{C}$) $V_F=1.1\text{V MAX @ } I_F=200\text{mA}$ (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	$\mu\text{V}/\sqrt{\text{Hz}}$
CPZ59X-1N4110	15.20	16	16.80	250	100	0.05	12.2	15.4	40
CPZ59X-1N4111	16.15	17	17.85	250	100	0.05	13.0	14.5	40
CPZ59X-1N4112	17.10	18	18.90	250	100	0.05	13.7	13.2	40
CPZ59X-1N4113	18.05	19	19.95	250	150	0.05	14.5	12.5	40
CPZ59X-1N4114	19.00	20	21.00	250	150	0.01	15.2	11.9	40
CPZ59X-1N4115	20.90	22	23.10	250	150	0.01	16.8	10.8	40
CPZ59X-1N4116	22.80	24	25.20	250	150	0.01	18.3	9.9	40
CPZ59X-1N4117	23.75	25	26.25	250	150	0.01	19.0	9.5	40
CPZ59X-1N4118	25.65	27	28.35	250	150	0.01	20.5	8.8	40
CPZ59X-1N4119	26.60	28	29.40	250	200	0.01	21.3	8.5	40
CPZ59X-1N4120	28.50	30	31.50	250	200	0.01	22.8	7.9	40
CPZ59X-1N4121	31.35	33	34.65	250	200	0.01	25.1	7.2	40
CPZ59X-1N4122	34.20	36	37.80	250	200	0.01	27.4	6.6	40
CPZ59X-1N4123	37.05	39	40.95	250	200	0.01	29.7	6.1	40
CPZ59X-1N4124	40.85	43	45.15	250	250	0.01	32.7	5.5	40
CPZ59X-1N4125	44.65	47	49.35	250	250	0.01	35.8	5.1	40
CPZ59X-1N4126	48.45	51	53.55	250	300	0.01	38.8	4.6	40
CPZ59X-1N4127	53.20	56	58.80	250	300	0.01	42.6	4.2	40
CPZ59X-1N4128	57.00	60	63.00	250	400	0.01	45.6	4.0	40
CPZ59X-1N4129	58.90	62	65.10	250	500	0.01	47.1	3.8	40

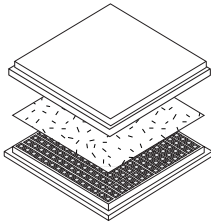
CPZ59X-1N4110 THRU
CPZ59X-1N4131
Zener Diode Die
250mW, 16 THRU 75 VOLT



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	$\mu\text{V}/\sqrt{\text{Hz}}$
CPZ59X-1N4130	64.60	68	71.40	250	700	0.01	51.7	3.5	40
CPZ59X-1N4131	71.25	75	78.75	250	700	0.01	57.0	3.1	40

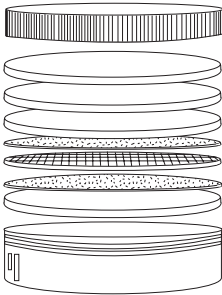
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

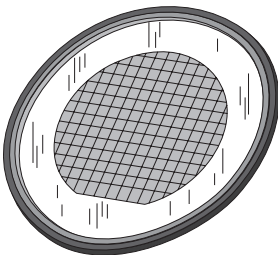
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

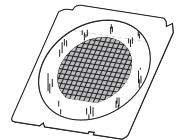
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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).

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