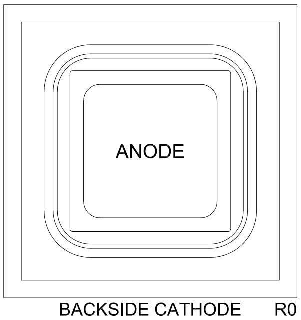
CPZ48X-CMPZ4099 THRU
CPZ48X-CMPZ4124
Zener Diode Die
350mW, 6.8 THRU 43 VOLT

The CPZ48X-CMPZ4099 thru CPZ48X-CMPZ4124 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:	**SYMBOL**		**UNITS**
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS: (T_A=25°C) V_F=1.0V MAX @ I_F=200mA (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 @ 250µA
	V	V	V	µA	Ω	µA	V	mA	µV/√Hz
CPZ48X-CMPZ4099	6.460	6.8	7.140	250	200	10	5.2	35.0	40
CPZ48X-CMPZ4100	7.125	7.5	7.865	250	200	10	5.7	31.8	40
CPZ48X-CMPZ4101	7.790	8.2	8.610	250	200	1.0	6.3	29.0	40
CPZ48X-CMPZ4102	8.265	8.7	9.135	250	200	1.0	6.7	27.4	40
CPZ48X-CMPZ4103	8.645	9.1	9.555	250	200	1.0	7.0	26.2	40
CPZ48X-CMPZ4104	9.500	10	10.50	250	200	1.0	7.6	24.8	40
CPZ48X-CMPZ4105	10.45	11	11.55	250	200	0.05	8.5	21.6	40
CPZ48X-CMPZ4106	11.40	12	12.60	250	200	0.05	9.2	20.4	40
CPZ48X-CMPZ4107	12.35	13	13.65	250	200	0.05	9.9	19.0	40
CPZ48X-CMPZ4108	13.30	14	14.70	250	200	0.05	10.7	17.5	40
CPZ48X-CMPZ4109	14.25	15	15.75	250	100	0.05	11.4	16.3	40
CPZ48X-CMPZ4110	15.20	16	16.80	250	100	0.05	12.2	15.4	40
CPZ48X-CMPZ4111	16.15	17	17.85	250	100	0.05	13.0	14.5	40
CPZ48X-CMPZ4112	17.10	18	18.90	250	100	0.05	13.7	13.2	40
CPZ48X-CMPZ4113	18.05	19	19.95	250	150	0.05	14.5	12.5	40

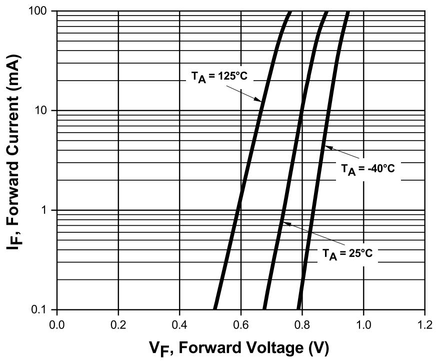
R0 (12-February 2018)

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 @ 250μA
	V	V	V	μA	Ω	μA	V	mA	μV/√Hz
CPZ48X-CMPZ4114	19.00	20	21.00	250	150	0.01	15.2	11.9	40
CPZ48X-CMPZ4115	20.90	22	23.10	250	150	0.01	16.8	10.8	40
CPZ48X-CMPZ4116	22.80	24	25.20	250	150	0.01	18.3	9.9	40
CPZ48X-CMPZ4117	23.75	25	26.25	250	150	0.01	19.0	9.5	40
CPZ48X-CMPZ4118	25.65	27	28.35	250	150	0.01	20.5	8.8	40
CPZ48X-CMPZ4119	26.60	28	29.40	250	200	0.01	21.3	8.5	40
CPZ48X-CMPZ4120	28.50	30	31.50	250	200	0.01	22.8	7.9	40
CPZ48X-CMPZ4121	31.35	33	34.65	250	200	0.01	25.1	7.2	40
CPZ48X-CMPZ4122	34.20	36	37.80	250	200	0.01	27.4	6.6	40
CPZ48X-CMPZ4123	37.05	39	40.95	250	200	0.01	29.7	6.1	40
CPZ48X-CMPZ4124	40.85	43	45.15	250	250	0.01	32.7	5.5	40

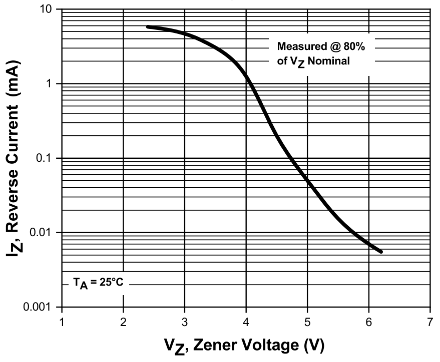
CPZ48X-CMPZ4099 THRU
CPZ48X-CMPZ4124

Typical Electrical Characteristics

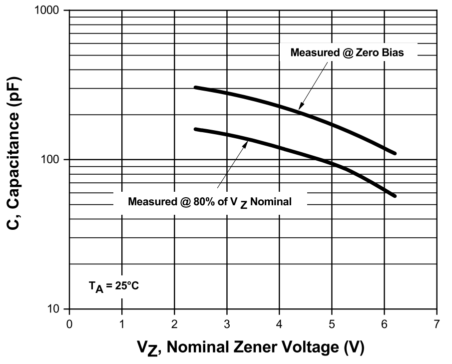
Forward Voltage



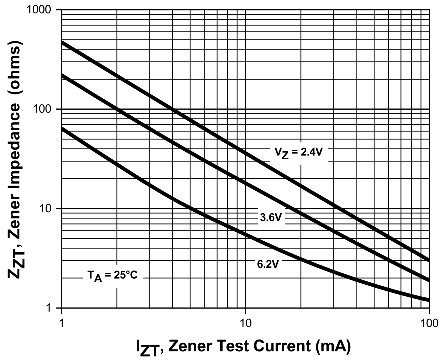
Reverse Leakage Characteristics



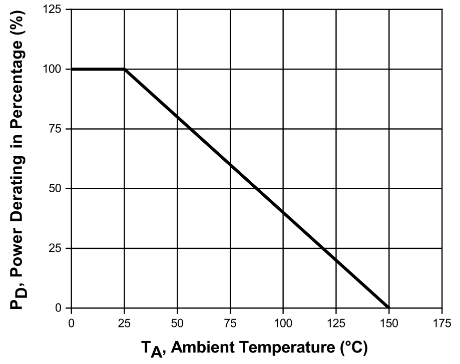
Capacitance



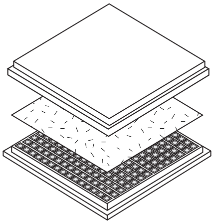
Zener Impedance



Normalized Power Derating



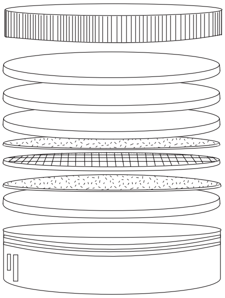
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

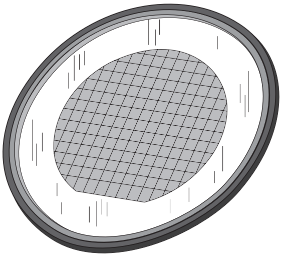
CT: Singulated die in tray (waffle) pack.
(example: CP211-<u>PART NUMBER</u>-CT)

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



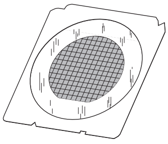
UNSAWN WAFER

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



SAWN WAFER ON PLASTIC RING

WR: Full wafer, sawn and mounted on plastic ring, 100% tested with reject die inked.
(example: CP211-<u>PART NUMBER</u>-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.centralsemi.com/bdspecs

R2 (3-April 2017)

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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