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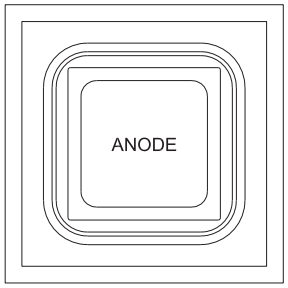
CPZ28X-BZX84C2V4 THRU CPZ28X-BZX84C47
Zener Diode Die
350mW, 2.4 THRU 47 VOLT

The CPZ28X-BZX84C2V4 thru CPZ28X-BZX84C47 are silicon Zener diodes ideal for all types of commercial, industrial, entertainment, and computer applications.



BACKSIDE CATHODE R0

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=0.9V MAX @ I_F=10mA (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}	ΘV_Z
	V	V	V	mA	Ω	Ω	mA	μA	V	mA	% / °C
CPZ28X-BZX84C2V4	2.2	2.4	2.6	5.0	100	600	1.0	50	1.0	104	-0.06
CPZ28X-BZX84C2V7	2.5	2.7	2.9	5.0	100	600	1.0	20	1.0	92	-0.06
CPZ28X-BZX84C3V0	2.8	3.0	3.2	5.0	95	600	1.0	10	1.0	83	-0.06
CPZ28X-BZX84C3V3	3.1	3.3	3.5	5.0	95	600	1.0	5.0	1.0	76	-0.06
CPZ28X-BZX84C3V6	3.4	3.6	3.8	5.0	90	600	1.0	5.0	1.0	69	-0.06
CPZ28X-BZX84C3V9	3.7	3.9	4.1	5.0	90	600	1.0	3.0	1.0	64	-0.06
CPZ28X-BZX84C4V3	4.0	4.3	4.6	5.0	90	600	1.0	3.0	1.0	58	-0.05
CPZ28X-BZX84C4V7	4.4	4.7	5.0	5.0	80	500	1.0	3.0	2.0	53	-0.03
CPZ28X-BZX84C5V1	4.8	5.1	5.4	5.0	60	480	1.0	2.0	2.0	49	0.02
CPZ28X-BZX84C5V6	5.2	5.6	6.0	5.0	40	400	1.0	1.0	2.0	45	0.03
CPZ28X-BZX84C6V2	5.8	6.2	6.6	5.0	10	150	1.0	3.0	4.0	40	0.04
CPZ28X-BZX84C6V8	6.4	6.8	7.2	5.0	15	80	1.0	2.0	4.0	37	0.05
CPZ28X-BZX84C7V5	7.0	7.5	7.9	5.0	15	80	1.0	1.0	5.0	33	0.05
CPZ28X-BZX84C8V2	7.7	8.2	8.7	5.0	15	80	1.0	0.7	5.0	30	0.06
CPZ28X-BZX84C9V1	8.5	9.1	9.6	5.0	15	100	1.0	0.5	6.0	27	0.06
CPZ28X-BZX84C10	9.4	10	10.6	5.0	20	150	1.0	0.2	7.0	25	0.07
CPZ28X-BZX84C11	10.4	11	11.6	5.0	20	150	1.0	0.1	8.0	23	0.07

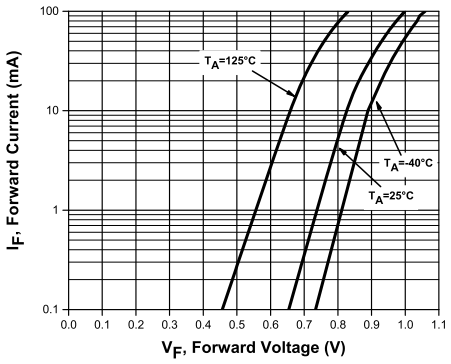
R0 (16-December 2016)

ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C) V_F=0.9V MAX @ I_F=10mA (for all types)

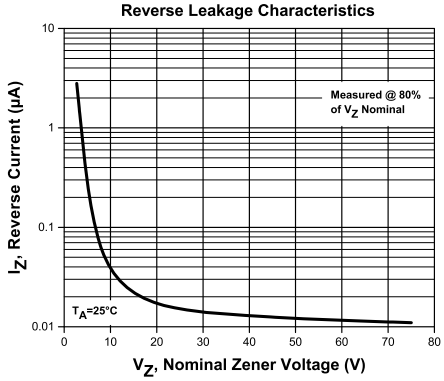
TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT	MAXIMUM TEMPERATURE COEFFICIENT
	MIN	NOM	MAX	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @	I_{ZK}	I_R @	V_R	I_{ZM}	ΘV_Z
	V	V	V	mA	Ω	Ω	mA	μA	V	mA	% / °C
CPZ28X-BZX84C12	11.4	12	12.7	5.0	25	150	1.0	0.1	8.0	21	0.07
CPZ28X-BZX84C13	12.4	13	14.1	5.0	30	170	1.0	0.1	8.0	19	0.08
CPZ28X-BZX84C15	13.8	15	15.6	5.0	30	200	1.0	0.05	10.5	17	0.08
CPZ28X-BZX84C16	15.3	16	17.1	5.0	40	200	1.0	0.05	11.2	16	0.08
CPZ28X-BZX84C18	16.8	18	19.1	5.0	45	225	1.0	0.05	12.6	14	0.08
CPZ28X-BZX84C20	18.8	20	21.2	5.0	55	225	1.0	0.05	14.0	12	0.08
CPZ28X-BZX84C22	20.8	22	23.3	5.0	55	250	1.0	0.05	15.4	11	0.09
CPZ28X-BZX84C24	22.8	24	25.6	5.0	70	250	1.0	0.05	16.8	10	0.09
CPZ28X-BZX84C27	25.1	27	28.9	2.0	80	300	0.5	0.05	18.9	9	0.09
CPZ28X-BZX84C30	28.0	30	32.0	2.0	80	300	0.5	0.05	21.0	8	0.09
CPZ28X-BZX84C33	31.0	33	35.0	2.0	80	325	0.5	0.05	23.1	7	0.09
CPZ28X-BZX84C36	34.0	36	38.0	2.0	90	350	0.5	0.05	25.2	6.9	0.09
CPZ28X-BZX84C39	37.0	39	41.0	2.0	130	350	0.5	0.05	27.3	6.4	0.09
CPZ28X-BZX84C43	40.0	43	46.0	2.0	150	375	0.5	0.05	30.1	5.8	0.10
CPZ28X-BZX84C47	44.0	47	50.0	2.0	170	375	0.5	0.05	32.9	5.3	0.10

Typical Electrical Characteristics

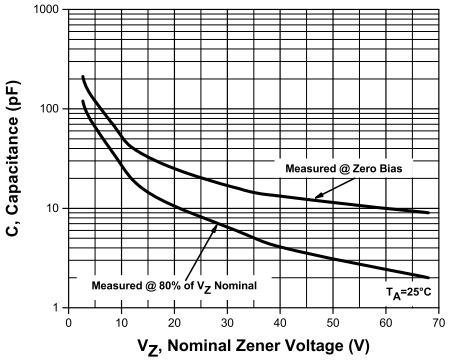
Forward Voltage



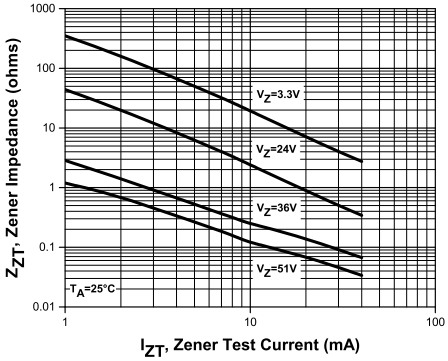
Reverse Leakage Characteristics



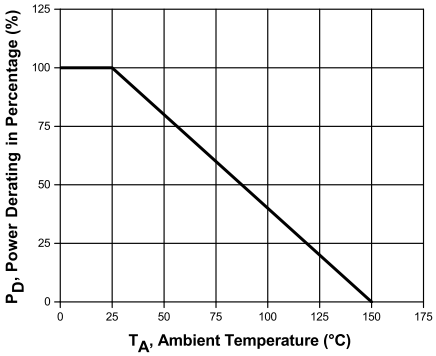
Capacitance



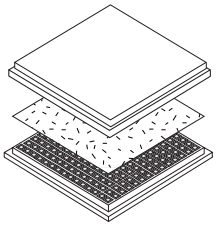
Zener Impedance



Normalized Power Derating



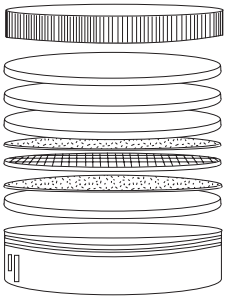
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

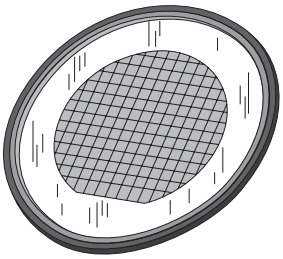
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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)



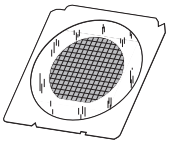
UNSAWN WAFER

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.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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