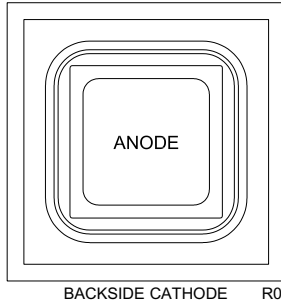


**CPZ58X-1N5221B THRU
CPZ58X-1N5245B
Zener Diode Die
500mW, 2.4 THRU 15 VOLT**

The CPZ58X-1N5221B thru CPZ58X-1N5245B 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	AlSiCu – 35,000Å
Back Side Metalization	AuAs – 12,000Å
Scribe Alley Width	1.69 MILS
Wafer Diameter	6 INCHES
Gross Die Per Wafer	142,858

MAXIMUM RATINGS:

Operating and Storage Junction Temperature

SYMBOL

T_J, T_{stg}

-65 to +150

UNITS

°C

ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$) $V_F=1.2\text{V MAX @ } I_F=200\text{mA}$ (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM TEMPERATURE COEFFICIENT
	MIN	NOM	MAX	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		$\frac{\partial V_Z}{\partial T}$
	V	V	V	mA	Ω	Ω	mA	μA	V	%/°C
CPZ58X-1N5221B	2.280	2.4	2.520	20	30	1200	0.25	100	1.0	-0.085
CPZ58X-1N5222B	2.375	2.5	2.625	20	30	1250	0.25	100	1.0	-0.085
CPZ58X-1N5223B	2.565	2.7	2.835	20	30	1300	0.25	75	1.0	-0.080
CPZ58X-1N5224B	2.660	2.8	2.940	20	30	1400	0.25	75	1.0	-0.080
CPZ58X-1N5225B	2.850	3.0	3.150	20	29	1600	0.25	50	1.0	-0.075
CPZ58X-1N5226B	3.135	3.3	3.465	20	28	1600	0.25	25	1.0	-0.070
CPZ58X-1N5227B	3.420	3.6	3.780	20	24	1700	0.25	15	1.0	-0.065
CPZ58X-1N5228B	3.705	3.9	4.095	20	23	1900	0.25	10	1.0	-0.060
CPZ58X-1N5229B	4.085	4.3	4.515	20	22	2000	0.25	5.0	1.0	± 0.055
CPZ58X-1N5230B	4.465	4.7	4.935	20	19	1900	0.25	5.0	2.0	± 0.030
CPZ58X-1N5231B	4.845	5.1	5.355	20	17	1600	0.25	5.0	2.0	± 0.030
CPZ58X-1N5232B	5.320	5.6	5.880	20	11	1600	0.25	5.0	3.0	+0.038
CPZ58X-1N5233B	5.700	6.0	6.300	20	7.0	1600	0.25	5.0	3.5	+0.038
CPZ58X-1N5234B	5.890	6.2	6.510	20	7.0	1000	0.25	5.0	4.0	+0.045
CPZ58X-1N5235B	6.460	6.8	7.140	20	5.0	750	0.25	3.0	5.0	+0.050
CPZ58X-1N5236B	7.125	7.5	7.875	20	6.0	500	0.25	3.0	6.0	+0.058
CPZ58X-1N5237B	7.790	8.2	8.610	20	8.0	500	0.25	3.0	6.5	+0.062
CPZ58X-1N5238B	8.265	8.7	9.135	20	8.0	600	0.25	3.0	6.5	+0.065
CPZ58X-1N5239B	8.645	9.1	9.555	20	10	600	0.25	3.0	7.0	+0.068
CPZ58X-1N5240B	9.500	10	10.50	20	17	600	0.25	3.0	8.0	+0.075
CPZ58X-1N5241B	10.45	11	11.55	20	22	600	0.25	2.0	8.4	+0.076
CPZ58X-1N5242B	11.40	12	12.60	20	30	600	0.25	1.0	9.1	+0.077
CPZ58X-1N5243B	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9	+0.079
CPZ58X-1N5244B	13.30	14	14.70	9.0	15	600	0.25	0.1	10	+0.082

Note: V_Z Tolerance is $\pm 5\%$

**CPZ58X-1N5221B THRU
CPZ58X-1N5245B
Zener Diode Die
500mW, 2.4 THRU 15 VOLT**



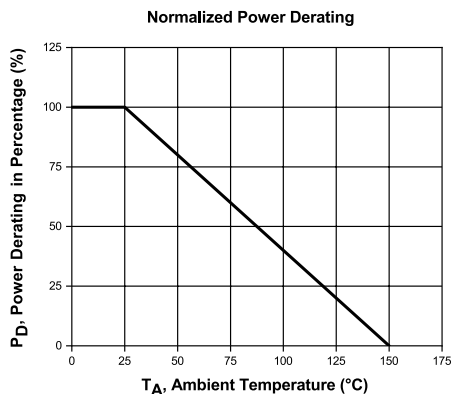
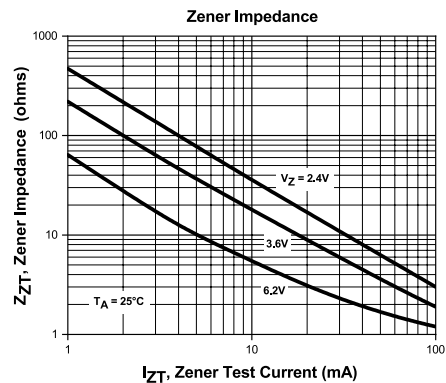
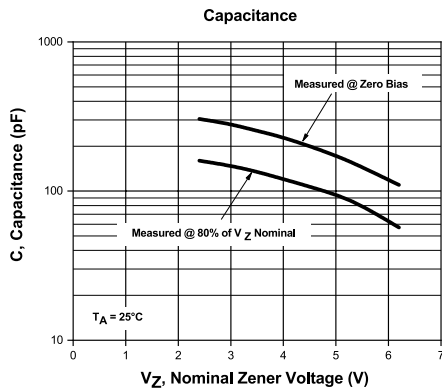
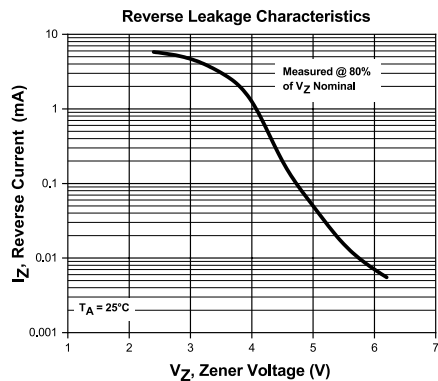
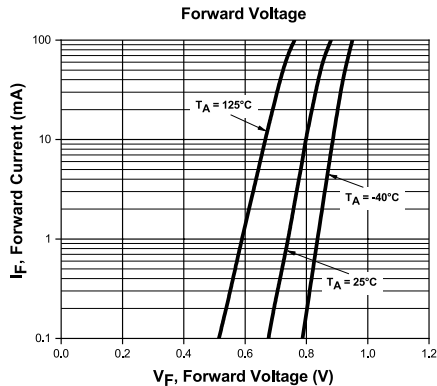
ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^{\circ}\text{C}$) $V_F=1.2\text{V MAX @ } I_F=200\text{mA}$ (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM TEMPERATURE COEFFICIENT
	MIN	NOM	MAX	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		$\ominus V_Z$
	V	V	V	mA	Ω	Ω	mA	μA	V	%/ $^{\circ}\text{C}$
CPZ58X-1N5245B	14.25	15	15.75	8.5	16	600	0.25	0.1	11	+0.082

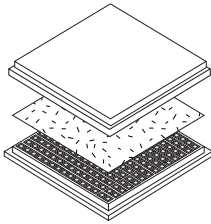
Note: V_Z Tolerance is $\pm 5\%$

CPZ58X-1N5221B THRU CPZ58X-1N5245B

Typical Electrical Characteristics



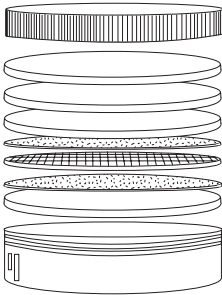
BARE DIE PACKING OPTIONS



BARE DIE IN TRAY (WAFFLE) PACK

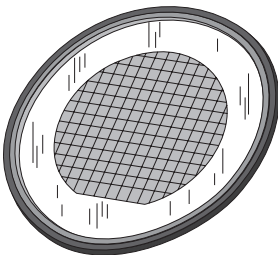
CT: Singulated die in tray (waffle) pack.
(example: CP211-PART NUMBER-CT)

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

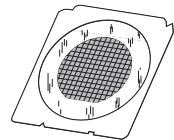
WN: Full wafer, unsawn, 100% tested with reject die inked.
(example: CP211-PART NUMBER-WN)



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

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