1N5221B THRU 1N5278B

SILICON ZENER DIODES
500mW, 2.4 THRU 170 VOLT
5% TOLERANCE



DO-35 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N5221B series silicon Zener diodes are highly reliable voltage regulators designed for use in industrial, commercial, entertainment and computer applications.

MAXIMUM RATINGS: (T_L=75°C)	**SYMBOL**		**UNITS**
Power Dissipation	P_D	500	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C
V_Z Tolerance: Part number with “B” suffix		±5	%
V_Z Tolerance: Part number with “C” suffix		±2	%
V_Z Tolerance: Part number with “D” suffix		±1	%

ELECTRICAL CHARACTERISTICS: (T_A=25°C) V_F=1.1V MAX @ I_F=200mA (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		ΘV_Z
	V	V	V	mA	Ω	Ω	mA	μA	V	%/°C
1N5221B	2.280	2.4	2.520	20	30	1200	0.25	100	1.0	-0.085
1N5222B	2.375	2.5	2.625	20	30	1250	0.25	100	1.0	-0.085
1N5223B	2.565	2.7	2.835	20	30	1300	0.25	75	1.0	-0.080
1N5224B	2.660	2.8	2.940	20	30	1400	0.25	75	1.0	-0.080
1N5225B	2.850	3.0	3.150	20	29	1600	0.25	50	1.0	-0.075
1N5226B	3.135	3.3	3.465	20	28	1600	0.25	25	1.0	-0.070
1N5227B	3.420	3.6	3.780	20	24	1700	0.25	15	1.0	-0.065
1N5228B	3.705	3.9	4.095	20	23	1900	0.25	10	1.0	-0.060
1N5229B	4.085	4.3	4.515	20	22	2000	0.25	5.0	1.0	±0.055
1N5230B	4.465	4.7	4.935	20	19	1900	0.25	5.0	2.0	±0.030
1N5231B	4.845	5.1	5.355	20	17	1600	0.25	5.0	2.0	±0.030
1N5232B	5.320	5.6	5.880	20	11	1600	0.25	5.0	3.0	+0.038
1N5233B	5.700	6.0	6.300	20	7.0	1600	0.25	5.0	3.5	+0.038
1N5234B	5.890	6.2	6.510	20	7.0	1000	0.25	5.0	4.0	+0.045
1N5235B	6.460	6.8	7.140	20	5.0	750	0.25	3.0	5.0	+0.050
1N5236B	7.125	7.5	7.875	20	6.0	500	0.25	3.0	6.0	+0.058
1N5237B	7.790	8.2	8.610	20	8.0	500	0.25	3.0	6.5	+0.062
1N5238B	8.265	8.7	9.135	20	8.0	600	0.25	3.0	6.5	+0.065
1N5239B	8.645	9.1	9.555	20	10	600	0.25	3.0	7.0	+0.068
1N5240B	9.500	10	10.50	20	17	600	0.25	3.0	8.0	+0.075
1N5241B	10.45	11	11.55	20	22	600	0.25	2.0	8.4	+0.076
1N5242B	11.40	12	12.60	20	30	600	0.25	1.0	9.1	+0.077
1N5243B	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9	+0.079
1N5244B	13.30	14	14.70	9.0	15	600	0.25	0.1	10	+0.082
1N5245B	14.25	15	15.75	8.5	16	600	0.25	0.1	11	+0.082
1N5246B	15.20	16	16.80	7.8	17	600	0.25	0.1	12	+0.083

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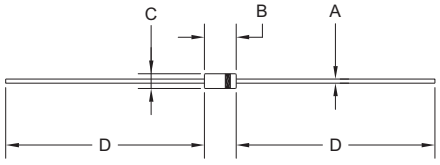
ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C) V_F=1.1V MAX @ I_F=200mA (for all types)

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		ΘV_Z
	V	V	V	mA	Ω	Ω	mA	μA	V	%/°C
1N5247B	16.15	17	17.85	7.4	19	600	0.25	0.1	13	+0.084
1N5248B	17.10	18	18.90	7.0	21	600	0.25	0.1	14	+0.085
1N5249B	18.05	19	19.95	6.6	23	600	0.25	0.1	14	+0.086
1N5250B	19.00	20	21.00	6.2	25	600	0.25	0.1	15	+0.086
1N5251B	20.90	22	23.10	5.6	29	600	0.25	0.1	17	+0.087
1N5252B	22.80	24	25.20	5.2	33	600	0.25	0.1	18	+0.088
1N5253B	23.75	25	26.25	5.0	35	600	0.25	0.1	19	+0.089
1N5254B	25.65	27	28.35	4.6	41	600	0.25	0.1	21	+0.090
1N5255B	26.60	28	29.40	4.5	44	600	0.25	0.1	21	+0.091
1N5256B	28.50	30	31.50	4.2	49	600	0.25	0.1	23	+0.091
1N5257B	31.35	33	34.65	3.8	58	700	0.25	0.1	25	+0.092
1N5258B	34.20	36	37.80	3.4	70	700	0.25	0.1	27	+0.093
1N5259B	37.05	39	40.95	3.2	80	800	0.25	0.1	30	+0.094
1N5260B	40.85	43	45.15	3.0	93	900	0.25	0.1	33	+0.095
1N5261B	44.65	47	49.35	2.7	105	1000	0.25	0.1	36	+0.095
1N5262B	48.45	51	53.55	2.5	125	1100	0.25	0.1	39	+0.096
1N5263B	53.20	56	58.80	2.2	150	1300	0.25	0.1	43	+0.096
1N5264B	57.00	60	63.00	2.1	170	1400	0.25	0.1	46	+0.097
1N5265B	58.90	62	65.10	2.0	185	1400	0.25	0.1	47	+0.097
1N5266B	64.60	68	71.40	1.8	230	1600	0.25	0.1	52	+0.097
1N5267B	71.25	75	78.75	1.7	270	1700	0.25	0.1	56	+0.098
1N5268B	77.90	82	86.10	1.5	330	2000	0.25	0.1	62	+0.098
1N5269B	82.65	87	91.35	1.4	370	2200	0.25	0.1	68	+0.099
1N5270B	86.45	91	95.55	1.4	400	2300	0.25	0.1	69	+0.099
1N5271B	95.00	100	105.0	1.3	500	2600	0.25	0.1	76	+0.110
1N5272B	104.5	110	115.5	1.1	750	3000	0.25	0.1	84	+0.110
1N5273B	114.0	120	126.0	1.0	900	4000	0.25	0.1	91	+0.110
1N5274B	123.5	130	136.5	0.95	1100	4500	0.25	0.1	99	+0.110
1N5275B	133.0	140	147.0	0.90	1300	4500	0.25	0.1	106	+0.110
1N5276B	142.5	150	157.5	0.85	1500	5000	0.25	0.1	114	+0.110
1N5277B	152.0	160	168.0	0.80	1700	5500	0.25	0.1	122	+0.110
1N5278B	161.5	170	178.5	0.74	1900	5500	0.25	0.1	129	+0.110

DO-35 CASE - MECHANICAL OUTLINE

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.018	0.022	0.46	0.56
B	0.120	0.200	3.05	5.08
C	0.060	0.090	1.52	2.29
D	1.000	-	25.40	-

DO-35 (REV: R1)



R3 (11-September 2013)

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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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.centralsemi.com/terms

Central Semiconductor Corp.

http://www.centralsemi.com

Product End of Life Notification

PDN ID:	PDN01089
Notification Date:	5/02/18
Last Buy Date:	11/02/18
Last Shipment Date	5/02/19

Summary:All high voltage 500mW Zener diodes in the DO-35 package are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. 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 Management Process. 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.

Central Part Number	Replacement
1N5263B BK	N/A
1N5263B TR	N/A
1N5264B BK	N/A
1N5264B TR	N/A
1N5265B BK	N/A
1N5265B TR	N/A
1N5266B BK	N/A
1N5266B TR	N/A
1N5267B BK	N/A
1N5267B TR	N/A
1N5268B AP	N/A
1N5268B BK	N/A
1N5268B TR	N/A
1N5269B AP	N/A
1N5269B BK	N/A
1N5269B TR	N/A
1N5270B AP	N/A
1N5270B BK	N/A
1N5270B TR	N/A
1N5271B AP	N/A
1N5271B BK	N/A
1N5271B TR	N/A
1N5272B AP	N/A
1N5272B BK	N/A
1N5272B TR	N/A
1N5273B AP	N/A
1N5273B BK	N/A
1N5273B TR	N/A
1N5274 TR	N/A
1N5274B BK	N/A
1N5274B TR	N/A
1N5275B BK	N/A
1N5275B TR	N/A
1N5276B BK	N/A
1N5276B TR	N/A
1N5277B BK	N/A
1N5277B TR	N/A
1N5278B BK	N/A

*** CONTINUED ***

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. 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.

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*** CONTINUED FROM PRIOR PAGE ***

Central Part Number	Replacement
1N5278B TR	N/A
1N5279B BK	N/A
1N5279B TR	N/A
1N5280B BK	N/A
1N5280B TR	N/A
1N5281B BK	N/A
1N5281B TR	N/A

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. Please email your requests to engineering@centralsemi.com.

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