

1N4099D THRU 1N4135D

SILICON ZENER DIODE
LOW NOISE
6.8 VOLT THRU 100 VOLT
250mW, 1% TOLERANCE

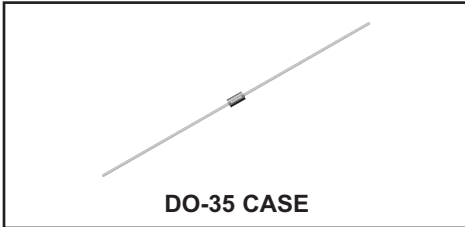


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DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N4099D series silicon Zener diode is designed for low leakage, low current, and low noise applications.

MARKING: FULL PART NUMBER



DO-35 CASE

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

Power Dissipation
Operating and Storage Junction Temperature

SYMBOL

P_D 250
 T_J, T_{stg} -65 to +200

UNITS

mW
 $^\circ\text{C}$

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	$\mu\text{V}/\sqrt{\text{Hz}}$
1N4099D	6.732	6.8	6.868	250	200	10	5.2	35.0	40
1N4100D	7.425	7.5	7.575	250	200	10	5.7	31.8	40
1N4101D	8.118	8.2	8.282	250	200	1.0	6.3	29.0	40
1N4102D	8.613	8.7	8.787	250	200	1.0	6.7	27.4	40
1N4103D	9.009	9.1	9.191	250	200	1.0	7.0	26.2	40
1N4104D	9.90	10	10.10	250	200	1.0	7.6	24.8	40
1N4105D	10.89	11	11.11	250	200	0.05	8.5	21.6	40
1N4106D	11.88	12	12.12	250	200	0.05	9.2	20.4	40
1N4107D	12.87	13	13.13	250	200	0.05	9.9	19.0	40
1N4108D	13.86	14	14.14	250	200	0.05	10.7	17.5	40
1N4109D	14.85	15	15.15	250	100	0.05	11.4	16.3	40
1N4110D	15.84	16	16.16	250	100	0.05	12.2	15.4	40
1N4111D	16.83	17	17.17	250	100	0.05	13.0	14.5	40
1N4112D	17.82	18	18.18	250	100	0.05	13.7	13.2	40
1N4113D	18.81	19	19.19	250	150	0.05	14.5	12.5	40
1N4114D	19.80	20	20.20	250	150	0.01	15.2	11.9	40
1N4115D	21.78	22	22.22	250	150	0.01	16.8	10.8	40
1N4116D	23.76	24	24.24	250	150	0.01	18.3	9.9	40
1N4117D	24.75	25	25.25	250	150	0.01	19.0	9.5	40
1N4118D	26.73	27	27.27	250	150	0.01	20.5	8.8	40
1N4119D	27.72	28	28.28	250	200	0.01	21.3	8.5	40
1N4120D	29.70	30	30.30	250	200	0.01	22.8	7.9	40
1N4121D	32.67	33	33.33	250	200	0.01	25.1	7.2	40

R1 (4-February 2014)

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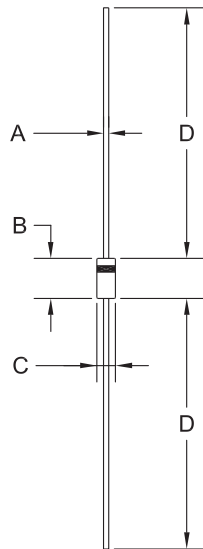
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ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^\circ\text{C}$) $V_F=1.1\text{V MAX @ } I_F=200\text{mA}$ (for all types)

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	$\mu\text{V}/\sqrt{\text{Hz}}$
1N4122D	35.64	36	36.36	250	200	0.01	27.4	6.6	40
1N4123D	38.61	39	39.39	250	200	0.01	29.7	6.1	40
1N4124D	42.57	43	43.43	250	250	0.01	32.7	5.5	40
1N4125D	46.53	47	47.47	250	250	0.01	35.8	5.1	40
1N4126D	50.49	51	51.51	250	300	0.01	38.8	4.6	40
1N4127D	55.44	56	56.56	250	300	0.01	42.6	4.2	40
1N4128D	59.40	60	60.60	250	400	0.01	45.6	4.0	40
1N4129D	61.38	62	62.62	250	500	0.01	47.1	3.8	40
1N4130D	67.32	68	68.68	250	700	0.01	51.7	3.5	40
1N4131D	74.25	75	75.75	250	700	0.01	57.0	3.1	40
1N4132D	81.18	82	82.82	250	800	0.01	62.4	2.9	40
1N4133D	86.13	87	87.87	250	1.0K	0.01	66.2	2.7	40
1N4134D	90.09	91	91.91	250	1.2K	0.01	69.2	2.6	40
1N4135D	99.00	100	101.0	250	1.5K	0.01	76.0	2.3	40

DO-35 CASE - MECHANICAL OUTLINE



R1

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	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)

MARKING: FULL PART NUMBER

R1 (4-February 2014)

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

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

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