1N4099 THRU 1N4135

SILICON ZENER DIODE
LOW NOISE
6.8 VOLT THRU 100 VOLT
250mW, 5% TOLERANCE

DO-35 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N4099 series silicon Zener diode is designed for low leakage, low current, and low noise applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Power Dissipation	P_D	250	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C

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 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
1N4099	6.460	6.8	7.140	250	200	10	5.2	35.0	40
1N4100	7.125	7.5	7.875	250	200	10	5.7	31.8	40
1N4101	7.790	8.2	8.610	250	200	1.0	6.3	29.0	40
1N4102	8.265	8.7	9.135	250	200	1.0	6.7	27.4	40
1N4103	8.645	9.1	9.555	250	200	1.0	7.0	26.2	40
1N4104	9.50	10	10.50	250	200	1.0	7.6	24.8	40
1N4105	10.45	11	11.55	250	200	0.05	8.5	21.6	40
1N4106	11.40	12	12.60	250	200	0.05	9.2	20.4	40
1N4107	12.35	13	13.65	250	200	0.05	9.9	19.0	40
1N4108	13.30	14	14.70	250	200	0.05	10.7	17.5	40
1N4109	14.25	15	15.75	250	100	0.05	11.4	16.3	40
1N4110	15.20	16	16.80	250	100	0.05	12.2	15.4	40
1N4111	16.15	17	17.85	250	100	0.05	13.0	14.5	40
1N4112	17.10	18	18.90	250	100	0.05	13.7	13.2	40
1N4113	18.05	19	19.95	250	150	0.05	14.5	12.5	40
1N4114	19.00	20	21.00	250	150	0.01	15.2	11.9	40
1N4115	20.90	22	23.10	250	150	0.01	16.8	10.8	40
1N4116	22.80	24	25.20	250	150	0.01	18.3	9.9	40
1N4117	23.75	25	26.25	250	150	0.01	19.0	9.5	40
1N4118	25.65	27	28.35	250	150	0.01	20.5	8.8	40
1N4119	26.60	28	29.40	250	200	0.01	21.3	8.5	40
1N4120	28.50	30	31.50	250	200	0.01	22.8	7.9	40
1N4121	31.35	33	34.65	250	200	0.01	25.1	7.2	40

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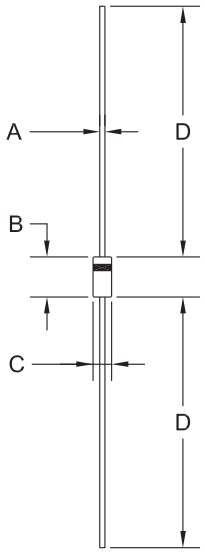
ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C) V_F=1.1V MAX @ I_F=200mA (for all types)

TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE	MAXIMUM REVERSE CURRENT		MAXIMUM 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
1N4122	34.20	36	37.80	250	200	0.01	27.4	6.6	40
1N4123	37.05	39	40.95	250	200	0.01	29.7	6.1	40
1N4124	40.85	43	45.15	250	250	0.01	32.7	5.5	40
1N4125	44.65	47	49.35	250	250	0.01	35.8	5.1	40
1N4126	48.45	51	53.55	250	300	0.01	38.8	4.6	40
1N4127	53.20	56	58.80	250	300	0.01	42.6	4.2	40
1N4128	57.00	60	63.00	250	400	0.01	45.6	4.0	40
1N4129	58.90	62	65.10	250	500	0.01	47.1	3.8	40
1N4130	64.60	68	71.40	250	700	0.01	51.7	3.5	40
1N4131	71.25	75	78.75	250	700	0.01	57.0	3.1	40
1N4132	77.90	82	86.10	250	800	0.01	62.4	2.9	40
1N4133	82.65	87	91.35	250	1.0K	0.01	66.2	2.7	40
1N4134	86.45	91	95.55	250	1.2K	0.01	69.2	2.6	40
1N4135	95.00	100	105.0	250	1.5K	0.01	76.0	2.3	40

DO-35 CASE - MECHANICAL OUTLINE



R1

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	-

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