



INTERNATIONAL SEMICONDUCTOR, INC.

400 MILLIWATT HERMETICALLY SEALED GLASS SILICON
ZENER DIODES

MAXIMUM RATINGS *

Junction Temperature:	-65 °C to +200 °C
Storage Temperature:	-65 °C to +200 °C
DC Power Dissipation:	400 mW at 75 °C
Power Derating:	2.66 mW/°C above 75 °C
Forward Voltage:	1.1 Volts Max at 200 mA 1N4099-1N4135 1.0 Volts Max at 100 mA 1N4614-1N4627

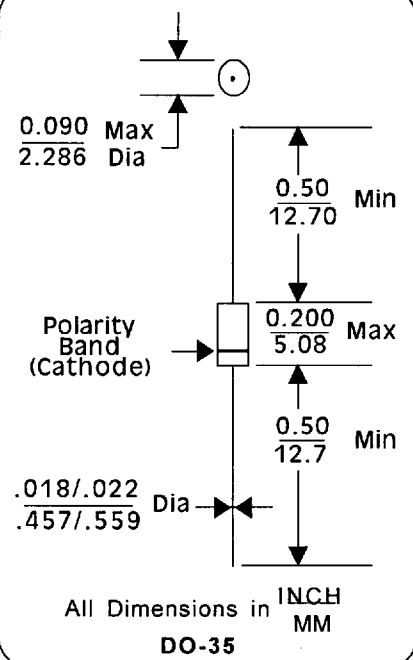
* ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

JEDEC TYPE NUMBER	NOMINAL ZENER VOLTAGE (Notes 1&2)	ZENER TEST CURRENT	MAXIMUM ZENER IMPEDANCE (Note 4)	MAX DC ZENER CURRENT (Note 3)	MAXIMUM NOISE DENSITY (Fig 2)	MAXIMUM REVERSE LEAKAGE CURRENT		MAXIMUM TEMPERATURE COEFFICIENT
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	I_{ZM}	$N_D @ I_{ZT}$	V_R	I_R	a_{VZ}
	Volts	uA	Ohms	mA	UV/HZ	Volts	uA	%/°C
1N4614	1.8	250	1200	120	1	1	7.5	-0.075
1N4615	2.0	250	1250	110	1	1	5.0	-0.075
1N4616	2.2	250	1300	100	1	1	4.0	-0.075
1N4617	2.4	250	1400	95	1	1	2.0	-0.075
1N4618	2.7	250	1500	90	1	1	1.0	-0.075
1N4619	3.0	250	1600	87	1	1	0.8	-0.075
1N4620	3.3	250	1650	85	1	1.5	7.5	-0.075
1N4621	3.6	250	1700	83	1	2	7.5	-0.065
1N4622	3.9	250	1650	80	1	2	5.0	-0.060
1N4623	4.3	250	1600	77	1	2	4.0	-0.050
1N4624	4.7	250	1550	75	1	3	10.0	-0.040/+0.020
1N4625	5.1	250	1500	70	2	3	10.0	-0.045/+0.030
1N4626	5.6	250	1400	65	4	4	10.0	-0.020/+0.040
1N4627	6.2	250	1200	61	5	5	10.0	-0.010/+0.050
1N4099	6.8	250	200	56	40	5.17	10.0	+0.040
1N4100	7.5	250	200	51	40	5.70	10.0	+0.045
1N4101	8.2	250	200	46	40	6.24	1.0	+0.048
1N4102	8.7	250	200	44	40	6.61	1.0	+0.049
1N4103	9.1	250	200	42	40	6.92	1.0	+0.050
1N4104	10	250	200	38	40	7.60	1.0	+0.055
1N4105	11	250	200	35	40	8.44	0.05	+0.060
1N4106	12	250	200	32	40	9.12	0.05	+0.065
1N4107	13	250	200	29	40	9.87	0.05	+0.065
1N4108	14	250	200	27	40	10.65	0.05	+0.070
1N4109	15	250	100	25	40	11.40	0.05	+0.070
1N4110	16	250	100	24	40	12.15	0.05	+0.070
1N4111	17	250	100	22	40	12.92	0.05	+0.075
1N4112	18	250	100	21	40	13.67	0.05	+0.075
1N4113	19	250	150	20	40	14.44	0.05	+0.075
1N4114	20	250	150	19	40	15.20	0.01	+0.075
1N4115	22	250	150	17	40	16.72	0.01	+0.080
1N4116	24	250	150	16	40	18.25	0.01	+0.080
1N4117	25	250	150	15	40	19.00	0.01	+0.080
1N4118	27	250	150	14	40	20.45	0.01	+0.085
1N4119	28	250	200	14	40	21.28	0.01	+0.085
1N4120	30	250	200	13	40	22.80	0.01	+0.085
1N4121	33	250	200	12	40	25.08	0.01	+0.085
1N4122	36	250	200	11	40	27.38	0.01	+0.090
1N4123	39	250	200	9.8	40	29.65	0.01	+0.090
1N4124	43	250	250	8.9	40	32.65	0.01	+0.090
1N4125	47	250	250	8.1	40	35.75	0.01	+0.090
1N4126	51	250	300	7.5	40	38.76	0.01	+0.090
1N4127	56	250	300	6.7	40	42.60	0.01	+0.090
1N4128	60	250	400	6.4	40	45.60	0.01	+0.090
1N4129	62	250	500	6.1	40	47.10	0.01	+0.090
1N4130	68	250	700	5.6	40	51.68	0.01	+0.095
1N4131	75	250	700	5.1	40	57.00	0.01	+0.095
1N4132	82	250	800	4.6	40	62.32	0.01	+0.095
1N4133	87	250	1000	4.4	40	66.12	0.01	+0.095
1N4134	91	250	1200	4.2	40	69.16	0.01	+0.095
1N4135	100	250	1500	3.8	40	76.00	0.01	+0.095

* JEDEC Registered Data.

1N4099 thru
1N4135D

1N4614 thru
1N4627D



DESIGN DATA

CASE: Hermetically sealed glass case.
DO-35 Outline

LEAD MATERIAL: Copper clad steel

LEAD FINISH: Tin Plate

THERMAL RESISTANCE:

$R_{\theta JA}$ at 3/8" lead spacing = 250 °C/W
maximum

POLARITY: Diode to be operated with
the banded (cathode) end
positive with respect to the
opposite end

WEIGHT: 0.14 Grams

MOUNTING POSITION: Any

Note 1: Standard B Suffix voltage tolerance is $\pm 5\%$, A Suffix is $\pm 10\%$, Tolerances of $\pm 2\%$ and $\pm 1\%$ available on special order.

Note 2: Special selection of Zener Voltage and/or Matched Characteristics available on request.

Note 3: $I_{ZM} = 400 \text{ mW}/V_{Z(Nom)} \times \text{Tolerance}$

Note 4: Z_{ZT} and Z_{ZM} impedances are derived from the 1kHz voltage created when an AC current with RMS value of $\pm 10\%$ of DC zener test current is superimposed on the test current.

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