



**SOLID STATE INC.**

46 FARRAND STREET  
BLOOMFIELD, NEW JERSEY 07003

www.solidstateinc.com

**1N6309  
thru  
1N6355**

**500 mW Glass  
Zener Diodes**

**MAXIMUM RATINGS**

Operating Temperature: -65°C to +200°C

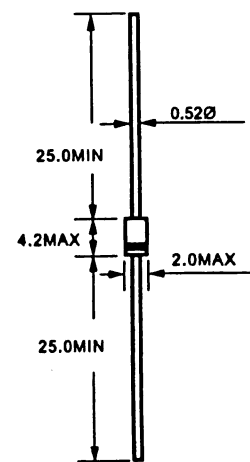
Storage Temperature: -65°C to +200°C

**ELECTRICAL CHARACTERISTICS**

TYPE	V <sub>Z2</sub> NOM. ±5% @ I <sub>Z2</sub>	V <sub>Z1</sub> MIN. @ I <sub>Z1</sub> 250 μA	I <sub>Z2</sub> TEST CURRENT	Z <sub>Z</sub> @ I <sub>Z2</sub>	Z <sub>ZK</sub> @ 250 μA	I <sub>ZM</sub>	V <sub>Z(reg)</sub> Δ V <sub>Z</sub>	I <sub>ZSM</sub> SURGE	V <sub>R</sub>	I <sub>R1</sub> @ 25°C	I <sub>R2</sub> @ T <sub>A</sub> = 150°C	N <sub>D</sub> @ 250 μA 1-3 kHz	α <sub>VZ</sub>	C @ 0V
	VOLTS	VOLTS	mA	OHMS	OHMS	mA	VOLTS	AMPS	VOLTS	μA	μA	μV/√Hz	%/°C	pF
1N6309	2.4	1.1	20	30	1200	177	1.6	2.5	1.0	100	200	1.0	-0.85	2000
1N6310	2.7	1.2	20	30	1300	157	1.6	2.2	1.0	60	150	1.0	-0.80	1900
1N6311	3.0	1.3	20	29	1400	141	1.6	2.0	1.0	30	100	1.0	-0.75	1800
1N6312	3.3	1.5	20	24	1400	128	1.6	1.8	1.0	5.0	20	1.0	-0.65	1650
1N6313	3.6	1.8	20	22	1400	109	1.6	1.65	1.0	3.0	12	1.0	-0.55 +0.020	1600
1N6314	3.9	2.0	20	20	1700	118	1.6	1.5	1.0	2.0	12	1.0	-0.43 +0.025 -0.030	1400
1N6315	4.3	2.4	20	18	1400	99	0.9	1.4	1.0	2.0	12	1.0	-0.30	1350
1N6316	4.7	2.8	20	16	1500	90	0.5	1.27	1.5	5.0	12	1.0	-0.28 +0.032	1300
1N6317	5.1	3.3	20	14	1300	83	0.4	1.17	2.0	5.0	12	1.0	+0.45	1200
1N6318	5.6	4.3	20	8.0	1200	76	0.4	1.10	2.5	5.0	10	2.0	+0.50	1150
1N6319	6.2	5.2	20	3.0	800	68	0.3	0.97	3.5	5.0	10	5.0	0.60	1050
1N6320	6.8	6.0	20	3.0	400	63	0.35	1.23	4.0	2.0	10	5.0	0.62	1000
1N6321	7.5	6.6	20	4.0	400	57	0.4	1.16	5.0	2.0	10	5.0	0.68	900
1N6322	8.2	7.5	20	5.0	400	52	0.4	1.07	6.0	1.0	10	20	0.75	800
1N6323	9.1	8.4	20	6.0	500	47	0.5	0.97	7.0	1.0	10	40	0.76	700
1N6324	10	9.1	20	6.0	500	43	0.5	0.89	8.0	1.0	10	80	0.79	600
1N6325	11	10	20	7.0	550	39	0.5	0.83	8.5	1.0	10	100	0.82	500
1N6326	12	11	20	7.0	550	35	0.55	0.77	9.0	1.0	10	100	0.83	450
1N6327	13	11.9	9.5	8.0	550	33	0.55	0.71	9.9	0.5	10	100	0.79	400
1N6328	15	13.8	8.5	10	600	28	0.70	0.62	11	0.5	10	100	0.82	350
1N6329	16	14.7	7.8	12	600	27	0.75	0.58	12	0.5	10	100	0.81	325
1N6330	18	16.6	7.0	14	600	24	0.85	0.52	14	0.5	10	100	0.85	300
1N6331	20	18.5	6.2	18	500	21	0.95	0.47	15	0.5	10	100	0.86	275
1N6332	22	20.4	5.6	20	500	19	1.05	0.43	17	0.5	10	100	0.87	260
1N6333	24	22.3	5.2	24	500	18	1.15	0.39	18	0.5	10	100	0.88	240
1N6334	27	25.2	4.6	27	500	16	1.30	0.35	21	0.5	10	100	0.90	220
1N6335	30	28	4.2	32	500	14	1.45	0.31	23	0.5	10	100	0.91	200
1N6336	33	30.9	3.8	40	600	13	1.60	0.28	25	0.5	10	100	0.92	185
1N6337	36	33.7	3.4	50	600	12	1.75	0.26	27	0.5	10	100	0.93	175
1N6338	39	36.6	3.2	55	700	11	1.90	0.24	30	0.5	10	100	0.94	170
1N6339	43	40.4	3.0	65	800	9.9	2.10	0.22	33	0.5	10	80	0.95	165
1N6340	47	44.2	2.7	75	900	9.0	2.25	0.20	36	0.5	10	80	0.95	155
1N6341	51	48	2.5	85	1000	8.3	2.50	0.18	39	0.5	10	80	0.96	145
1N6342	56	52.7	2.2	100	1200	7.6	2.70	0.17	43	0.5	10	80	0.97	135
1N6343	62	58.4	2.0	125	1300	6.8	2.90	0.15	47	0.5	10	80	0.97	130
1N6344	68	64.1	1.8	155	1500	6.3	3.20	0.13	52	0.5	10	80	0.98	120
1N6345	75	70.8	1.7	180	1600	5.7	3.40	0.125	56	0.5	10	80	0.98	110
1N6346	82	77.4	1.5	220	1800	5.2	3.80	0.115	62	0.5	10	80	0.99	105
1N6347	91	86	1.4	270	2100	4.7	4.20	0.100	69	0.5	10	80	0.99	100
1N6348	100	94.5	1.3	340	2400	4.3	4.40	0.095	76	0.5	10	80	1.10	95
1N6349	110	104	1.1	500	2800	3.9	4.80	0.085	84	0.5	10	80	1.10	90
1N6350	120	113	1.0	600	3200	3.5	5.20	0.080	91	0.5	10	80	1.10	70
1N6351	130	122	0.95	850	4100	3.3	5.60	0.070	99	0.5	10	80	1.10	70
1N6352	150	141	85	1000	4500	2.8	7.00	0.065	114	0.5	10	80	1.10	65
1N6353	160	151	80	1200	5000	2.7	7.50	0.060	122	0.5	10	80	1.10	65
1N6354	180	170	68	1500	5600	2.4	9.00	0.050	137	0.5	10	80	1.10	60
1N6355	200	189	65	1200	6500	2.1	12.0	0.045	152	0.5	10	80	1.10	55



DO-35



Dimensions in millimeters

**MECHANICAL CHARACTERISTICS**

CASE: Hermetically sealed hard glass.

LEAD MATERIAL: Copper clad steel.

MARKING: Body painted, alpha numeric.

POLARITY: Cathode band.

# 1N6309 thru 1N6355

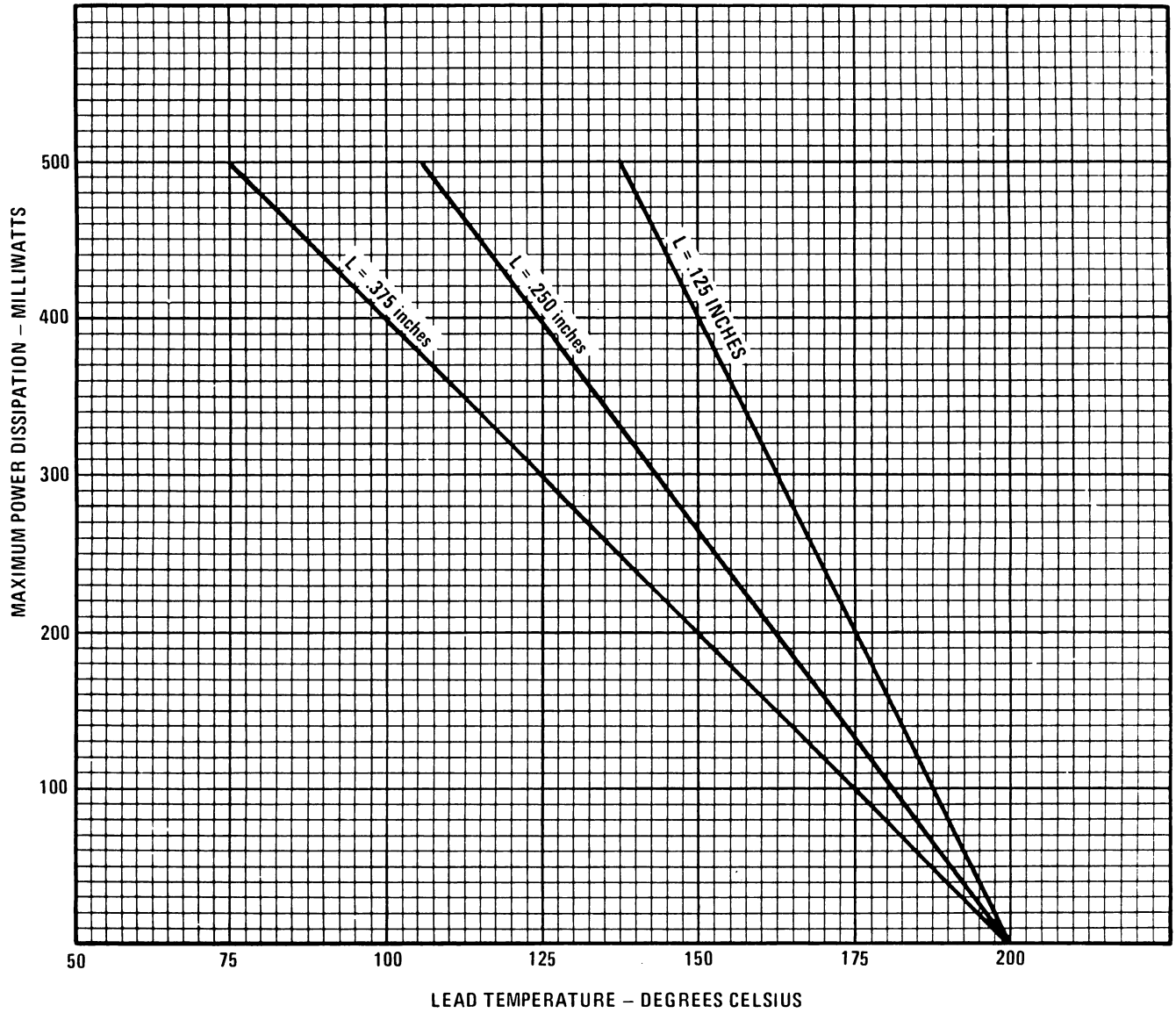


FIGURE 2. MAXIMUM POWER VS. LEAD TEMPERATURE