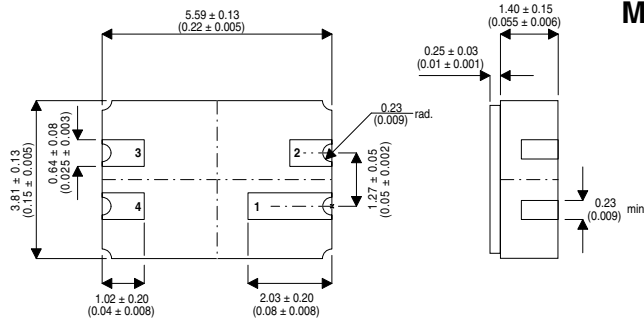


MECHANICAL DATA

Dimensions in mm (inches)



LCC3 (MO-041BA)

PAD 1 – CATHODE PAD 3 – N/C
PAD 2 – N/C PAD 4 – ANODE

Lead metallisation typically 100u inches Au over 50-250u inches Ni

500mW ZENER VOLTAGE REGULATOR DIODE IN A HERMETIC CERAMIC SURFACE MOUNT PACKAGE FOR HIGH RELIABILITY APPLICATIONS

FEATURES

- Extensive Voltage Selection (2.4V - 200V)
- Standard Voltage Tolerance of $\pm 5\%$ (B suffix)
- Regulation Over a Large Operating Current & Temperature Range
- ESD Insensitive
- Hermetic Ceramic Surface Mount Package
- Military Screening Options Available

P/N Suffix	V _Z Tolerance
A	- $\pm 10\%$
B	- $\pm 5.0\%$
C	- $\pm 2.0\%$
D	- $\pm 1.0\%$

ABSOLUTE MAXIMUM RATINGS $T_{CASE} = 25^{\circ}\text{C}$ unless otherwise stated

P _D	Power Dissipation at $T_A = 25^{\circ}\text{C}$	500mW
V _F	Forward Voltage at 200mA	1.5V
T _j	Operating Junction Temperature Range	-55°C to +175°C
T _{stg}	Storage Temperature Range	-65°C to +175°C
R _{JA}	Thermal Resistance Junction to Ambient	300°C/W

P/N	Nominal Zener Voltage	Test Current	Maximum Zener Impedance ⁽¹⁾		Maximum Reverse Leakage Current		Maximum Zener Voltage Coefficient ⁽²⁾
	V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZK}	Z _{ZT} @ I _{ZK} = 250µA	I _R	@ V _R	V _Z
	V	mA	A & B		µA	A B, C & D	%/°C A & B
1N5221	2.4	20	30	1200	100	0.95 1.0	-0.085
1N5222	2.5	20	30	1250	100	0.95 1.0	-0.085
1N5223	2.7	20	30	1300	75	0.95 1.0	-0.080
1N5224	2.8	20	30	1400	75	0.95 1.0	-0.080
1N5225	3.0	20	29	1600	50	0.95 1.0	-0.075
1N5226	3.3	20	28	1600	25	0.95 1.0	-0.070
1N5227	3.6	20	24	1700	15	0.95 1.0	-0.065
1N5228	3.9	20	23	1900	10	0.95 1.0	-0.060
1N5229	4.3	20	22	2000	5.0	0.95 1.0	± 0.055
1N5230	4.7	20	19	1900	5.0	1.9 2.0	± 0.030
1N5231	5.1	20	17	1600	5.0	1.9 2.0	± 0.030
1N5232	5.6	20	11	1600	5.0	2.9 3.0	+0.038
1N5233	6.0	20	7.0	1600	5.0	3.3 3.5	+0.038
1N5234	6.2	20	7.0	1000	5.0	3.8 4.0	+0.045
1N5235	6.8	20	5.0	750	3.0	4.8 5.0	+0.050

Semelab Ltd reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

P/N	Nominal Zener Voltage	Test Current	Maximum Zener Impedance ⁽¹⁾		Maximum Reverse Leakage Current			Maximum Zener Voltage Coefficient ⁽²⁾
	V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZK}	Z _{ZT} @ I _{ZK} = 250μA	I _R	@ V _R		V _Z
	V	mA	A & B		μA	A	B, C & D	%/°C A & B
1N5236	7.5	20	6.0	500	3.0	5.7	6.0	+0.058
1N5237	8.2	20	8.0	500	3.0	6.2	6.5	+0.062
1N5238	8.7	20	8.0	600	3.0	6.2	6.5	+0.065
1N5239	9.1	20	10	600	3.0	6.7	7.0	+0.068
1N5240	10	20	17	600	3.0	7.6	8.0	+0.075
1N5241	11	20	22	600	2.0	8	8.4	+0.076
1N5242	12	20	30	600	1.0	8.7	9.1	+0.077
1N5243	13	9.5	13	600	0.5	9.4	9.9	+0.079
1N5244	14	9.0	15	600	0.1	9.5	10	+0.082
1N5245	15	8.5	16	600	0.1	10.5	11	+0.082
1N5246	16	7.8	17	600	0.1	11.4	12	+0.083
1N5247	17	7.4	19	600	0.1	12.4	13	+0.084
1N5248	18	7.0	21	600	0.1	13.3	14	+0.085
1N5249	19	6.6	23	600	0.1	13.3	14	+0.086
1N5250	20	6.2	25	600	0.1	14.3	15	+0.086
1N5251	22	5.6	29	600	0.1	16.2	17	+0.087
1N5252	24	5.2	33	600	0.1	17.1	18	+0.088
1N5253	25	5.0	35	600	0.1	18.1	19	+0.089
1N5254	27	4.6	41	600	0.1	20	21	+0.090
1N5255	28	4.5	44	600	0.1	20	21	+0.091
1N5256	30	4.2	49	600	0.1	22	23	+0.091
1N5257	33	3.8	58	700	0.1	24	25	+0.092
1N5258	36	3.4	70	700	0.1	26	27	+0.093
1N5259	39	3.2	80	800	0.1	29	30	+0.094
1N5260	43	3.0	93	900	0.1	31	33	+0.095
1N5261	47	2.7	105	1000	0.1	34	36	+0.095
1N5262	51	2.5	125	1100	0.1	37	39	+0.096
1N5263	56	2.2	150	1300	0.1	41	43	+0.096
1N5264	60	2.1	170	1400	0.1	44	46	+0.097
1N5265	62	2.0	185	1400	0.1	45	47	+0.097
1N5266	68	1.8	230	1600	0.1	49	52	+0.097
1N5267	75	1.7	270	1700	0.1	53	56	+0.098
1N5268	82	1.5	330	2000	0.1	59	62	+0.098
1N5269	87	1.4	370	2200	0.1	65	68	+0.099
1N5270	91	1.4	400	2300	0.1	66	69	+0.099
1N5271	100	1.3	500	2600	0.1	72	76	+0.110
1N5272	110	1.1	750	3000	0.1	80	84	+0.110
1N5273	120	1.0	900	4000	0.1	86	91	+0.110
1N5274	130	0.95	1100	4500	0.1	94	99	+0.110
1N5275	140	0.90	1300	4500	0.1	101	106	+0.110
1N5276	150	0.85	1500	5000	0.1	108	114	+0.110
1N5277	160	0.80	1700	5500	0.1	116	122	+0.110
1N5278	170	0.74	1900	5500	0.1	123	129	+0.110
1N5279	180	0.68	2200	6000	0.1	130	137	+0.110
1N5280	190	0.66	2400	6500	0.1	137	144	+0.110
1N5281	200	0.65	2500	7000	0.1	144	152	+0.110

Notes: 1) Zener Impedance is measured to ensure a sharp knee characteristic on the breakdown curve. Derived from 50Hz ac voltage from ac current of 10% rms of I_{ZT} (or I_{ZK}) superimposed on DC I_{ZT} (or I_{ZK})

2) Temperature Coefficient test conditions:
a. I_{ZT} = 7.5mA, T₁ = 25°C, T₂ = 125°C (1N5221A, B through to 1N5242A, B)
b. I_{ZT} = 7.5mA, T₁ = 25°C, T₂ = 125°C (1N5243A, B through to 1N5281A, B)

DUT temperature stabilised with constant current for V_Z measurement @ T₁, T₂

Semelab Ltd reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.