1N/ZM4729A - 1N/ZM4764A

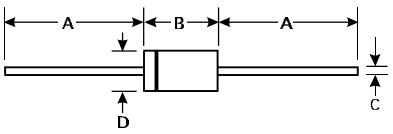
SILICON PLANAR POWER ZENER DIODE

Features

- 1 Watt Power Dissipation
- Hermetic Glass Package for High Reliability
- 3.6 - 100 Nominal Zener Voltages
- Standard V_Z Tolerance is 5%

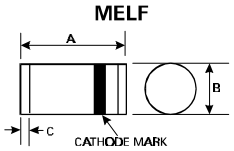
"1N" Types

DO-41



"ZM" Types

MELF



Mechanical Data

- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Case: Glass - DO-41 ("1N" types)
  MELF ("ZM" types)
- Approx. Weight: DO-41 - 0.35 grams
  MELF - 0.25 grams

	Min	Max
A	25.4	—
B	4.1	5.2
C	0.71	0.86
D	2.0	2.7
All dimensions in mm		

	Min	Max
A	4.8	5.2
B	2.4	2.5
C	0.55∅ Nominal	
All dimensions in mm		

Maximum Ratings @ TA = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Zener Current (see Table page 2)	—	—	—
Power Dissipation @ T_{amb} = 25°C	P_{tot}	1*	W
Junction Temperature	T_j	200	°C
Storage Temperature Range	T_s	-65 to +200	°C

* Valid provided that leads at a distance of 10mm from case or electrodes of the MELF case are kept at ambient temperature.

Electrical Characteristics @ TA = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit
Thermal Resistance - Junction to Ambient Air	R_{thA}	—	—	170*	K/W
Forward Voltage @ I_F = 200 mA	V_F	—	—	1.2	V

* Valid provided that leads at a distance of 10mm from case or electrodes of the MELF case are kept at ambient temperature.

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Type Number	Nominal Zener Voltage (1)	Test Current	Maximum Zener Impedance (2)			Maximum Reverse Leakage Current		Max Surge Current 8.3ms	Maximum Zener Current
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R	@ V_R	I_{ZS}	I_{ZM}
	V	mA	Ω	Ω	mA	μA	V	mA	mA
1N/ZM4729A	3.6	69	10	400	1.0	100	1	1260	252
1N/ZM4730A	3.9	64	9	400	1.0	100	1	1190	234
1N/ZM4731A	4.3	58	9	400	1.0	50	1	1070	217
1N/ZM4732A	4.7	53	8	500	1.0	10	1	970	193
1N/ZM4733A	5.1	49	7	550	1.0	10	1	890	178
1N/ZM4734A	5.6	45	5	600	1.0	10	2	810	162
1N/ZM4735A	6.2	41	2	700	1.0	10	3	730	146
1N/ZM4736A	6.8	37	3.5	700	1.0	10	4	660	133
1N/ZM4737A	7.5	34	4.0	700	0.5	10	5	605	121
1N/ZM4738A	8.2	31	4.5	700	0.5	10	6	550	110
1N/ZM4739A	9.1	28	5.0	700	0.5	10	7	500	100
1N/ZM4740A	10	25	7	700	0.25	10	7.6	454	91
1N/ZM4741A	11	23	8	700	0.25	5	8.4	414	83
1N/ZM4742A	12	21	9	700	0.25	5	9.1	380	76
1N/ZM4743A	13	19	10	700	0.25	5	9.9	344	69
1N/ZM4744A	15	17	14	700	0.25	5	11.4	304	61
1N/ZM4745A	16	15.5	16	700	0.25	5	12.2	285	57
1N/ZM4746A	18	14	20	750	0.25	5	13.7	250	50
1N/ZM4747A	20	12.5	22	750	0.25	5	15.2	225	45
1N/ZM4748A	22	11.5	23	750	0.25	5	16.7	205	41
1N/ZM4749A	24	10.5	25	750	0.25	5	18.2	190	38
1N/ZM4750A	27	9.5	35	750	0.25	5	20.6	170	34
1N/ZM4751A	30	8.5	40	1000	0.25	5	22.8	150	30
1N/ZM4752A	33	7.5	45	1000	0.25	5	25.1	135	27
1N/ZM4753A	36	7.0	50	1000	0.25	5	27.4	125	25
1N/ZM4754A	39	6.5	60	1000	0.25	5	29.7	115	23
1N/ZM4755A	43	6.0	70	1500	0.25	5	32.7	110	22
1N/ZM4756A	47	5.5	80	1500	0.25	5	35.8	95	19
1N/ZM4757A	51	5.0	95	1500	0.25	5	38.8	90	18
1N/ZM4758A	56	4.5	110	2000	0.25	5	42.6	80	16
1N/ZM4759A	62	4.0	125	2000	0.25	5	47.1	70	14
1N/ZM4760A	68	3.7	150	2000	0.25	5	51.7	65	13
1N/ZM4761A	75	3.3	175	2000	0.25	5	56.0	60	12
1N/ZM4762A	82	3.0	200	3000	0.25	5	62.2	55	11
1N/ZM4763A	91	2.8	250	3000	0.25	5	69.2	50	10
1N/ZM4764A	100	2.5	350	3000	0.25	5	76.0	45	9

Notes: 1. Measured under thermal equilibrium and dc (I_{ZT}) test conditions.

2. The Zener impedance is derived from the 60 Hz ac voltage which results when an ac current having an rms value equal to 10% of the Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

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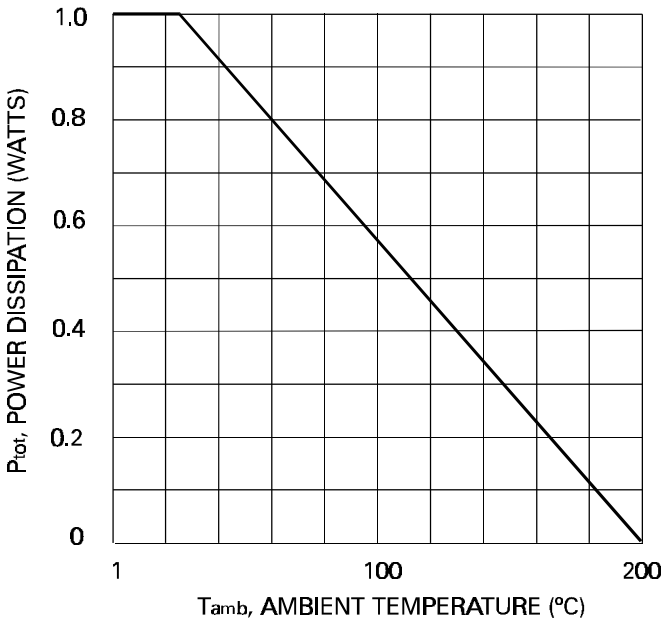

Fig. 1, Power Derating Curve

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