

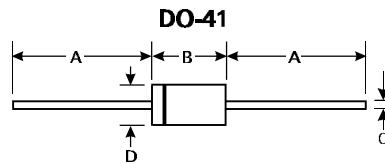
1N/ZM4729A - 1N/ZM4764A

SILICON PLANAR POWER ZENER DIODE

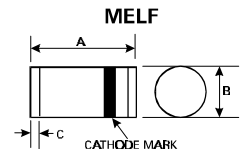
Features

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

"1N" Types



"ZM" Types



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 \varnothing Nominal	
All dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Zener Current (see Table page 2)	—	—	—
Power Dissipation @ $T_{\text{amb}} = 25^\circ\text{C}$	P_{tot}	1*	W
Junction Temperature	T_J	200	$^\circ\text{C}$
Storage Temperature Range	T_S	-65 to +200	$^\circ\text{C}$

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

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

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

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.

