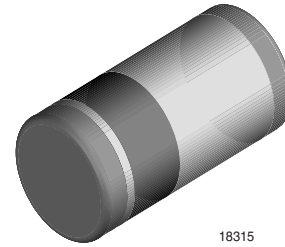


Zener Diodes

Features

- Silicon Planar Power Zener Diodes
- For use in stabilizing and clipping circuits with high power rating
- Standard Zener voltage tolerance is $\pm 5\%$
- These diodes are also available in the DO-41 case with type designation 1N4728 A... 1N4764A
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



18315

Mechanical Data

Case: MELF Glass case

Weight: approx. 135 mg

Packaging Codes/Options:

GS18 / 5 k per 13" reel (8 mm tape), 10 k/box

GS08 / 1.5 k per 7" reel (8 mm tape), 12 k/box

Absolute Maximum Ratings

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Zener current (see Table "Characteristics")				
Power dissipation		P_{tot}	1.0 ¹⁾	W

¹⁾ Valid provided that electrodes are kept at ambient temperature.

Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		R_{thJA}	170 ¹⁾	K/W
Junction temperature		T_j	150	$^{\circ}\text{C}$
Storage temperature		T_{stg}	- 65 to + 150	$^{\circ}\text{C}$

¹⁾ Valid provided that electrodes are kept at ambient temperature.

ZM4728A to ZM4764A



Vishay Semiconductors

Electrical Characteristics

Partnumber	Nominal Zener Voltage ³⁾	Test Current	Maximum Zener Impedance ¹⁾			Maximum Reverse Leakage Current		Maximum Reverse Leakage Current ²⁾
			Z_{ZT} at I_{ZT}	Z_{ZK} at I_{ZK}	I_{ZK}	I_R	V_R	
	V_Z at I_{ZT}	I_{ZT}	Z_{ZT} at I_{ZT}	Z_{ZK} at I_{ZK}	I_{ZK}	I_R	V_R	I_{ZM}
	V	mA	Ω	Ω	mA	μA	V	μA
ZM4728A	3.3	76	10	400	1	100	1	276
ZM4729A	3.6	69	10	400	1	100	1	252
ZM4730A	3.9	64	9	400	1	50	1	234
ZM4731A	4.3	58	9	400	1	10	1	217
ZM4732A	4.7	53	8	500	1	10	1	193
ZM4733A	5.1	49	7	550	1	10	1	178
ZM4734A	5.6	45	5	600	1	10	2	162
ZM4735A	6.2	41	2	700	1	10	3	146
ZM4736A	6.8	37	3.5	700	1	10	4	133
ZM4737A	7.5	34	4	700	0.5	10	5	121
ZM4738A	8.2	31	4.5	700	0.5	10	6	110
ZM4739A	9.1	28	5	700	0.5	10	7	100
ZM4740A	10	25	7	700	0.25	10	7.6	91
ZM4741A	11	23	8	700	0.25	5	8.4	83
ZM4742A	12	21	9	700	0.25	5	9.1	76
ZM4743A	13	19	10	700	0.25	5	9.9	69
ZM4744A	15	17	14	700	0.25	5	11.4	61
ZM4745A	16	15.5	16	700	0.25	5	12.2	57
ZM4746A	18	14	20	750	0.25	5	13.7	50
ZM4747A	20	12.5	22	750	0.25	5	15.2	45
ZM4748A	22	11.5	23	750	0.25	5	16.7	41
ZM4749A	24	10.5	25	750	0.25	5	18.2	38
ZM4750A	27	9.5	35	750	0.25	5	20.6	34
ZM4751A	30	8.5	40	1000	0.25	5	22.8	30
ZM4752A	33	7.5	45	1000	0.25	5	25.1	27
ZM4753A	36	7	50	1000	0.25	5	27.4	25
ZM4754A	39	6.5	60	1000	0.25	5	29.7	23
ZM4755A	43	6	70	1500	0.25	5	32.7	22
ZM4756A	47	5.5	80	1500	0.25	5	35.8	19
ZM4757A	51	5	95	1500	0.25	5	38.8	18
ZM4758A	56	4.5	110	2000	0.25	5	42.6	16
ZM4759A	62	4	125	2000	0.25	5	47.1	14
ZM4760A	68	3.7	150	2000	0.25	5	51.7	13
ZM4761A	75	3.3	175	2000	0.25	5	56	12
ZM4762A	82	3	200	3000	0.25	5	62.2	11
ZM4763A	91	2.8	250	3000	0.25	5	69.2	10
ZM4764A	100	2.5	350	3000	0.25	5	76	9

¹⁾ The Zener impedance is derived from the 1 KHz 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

²⁾ Valid provided that electrodes at a distance of 10 mm from case are kept at ambient temperature

³⁾ Measured under thermal equilibrium and DC test conditions.

Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

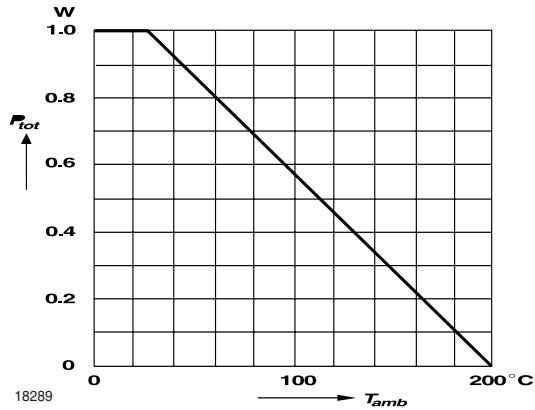


Figure 1. Admissible Power Dissipation vs. Ambient Temperature

Package Dimensions in mm (Inches)

