Zener Diodes

Features

- Silicon Planar Power Zener Diodes.
- Standard Zener voltage tolerance is ± 5 % for "A" suffix.

Mechanical Data

Case: DO-35 Glass Case
Weight: approx. 130 mg

Packaging codes/options:
TR / 10k per 13 " reel, 30k/box
TAP / 10k per Ammo tape (52 mm tape), 30k/box

Absolute Maximum Ratings

T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Zenner current (see Table "Characteristics")				
Power dissipation	T_{amb} = 75 °C	P_{tot}	500 [1]	W

[1] T_L is measured that leads at a distance of 3/8 " from case are kept at ambient temperature

Maximum Thermal Resistance

T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		$R_{\theta JA}$	300 [1]	°C/W
Maximum junction temperature		T_j	175	°C
Storage temperature range		T_S	- 65 to + 175	°C

[1] Valid provided that leads at a distance of 3/8 " from case are kept at ambient temperature

Electrical Characteristics

1N746A to 1N759A

Partnumber	Nominal Zener Voltage	Test Current	Maximum Dynamic Impedance	Maximum Regulator Current	Maximum Reverse Leakage Current (I_R @ V_R = 1V)	
	V_Z @ I_{ZT} [3]	I_{ZT}	Z_{ZT} @ I_{ZT} [1]	I_{ZM} [2]	T_{amb} = 25 °C	T_{amb} = 150 °C
	V	mA	Ω	mA	µA	µA
1N746A	3.3	20	28	110	10	30
1N747A	3.6	20	24	100	10	30
1N748A	3.9	20	23	95	10	30
1N749A	4.3	20	22	85	2	30
1N750A	4.7	20	19	75	2	30
1N751A	5.1	20	17	70	1	20
1N752A	5.6	20	11	65	1	20
1N753A	6.2	20	7	60	0.1	20
1N754A	6.8	20	5	55	0.1	20
1N755A	7.5	20	6	50	0.1	20
1N756A	8.2	20	8	45	0.1	20
1N757A	9.1	20	10	40	0.1	20
1N758A	10	20	17	35	0.1	20
1N759A	12	20	30	30	0.1	20

[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}) is superimposed on I_{ZT}. 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 leads at a distance of 3/8 " from case are kept at ambient temperature.

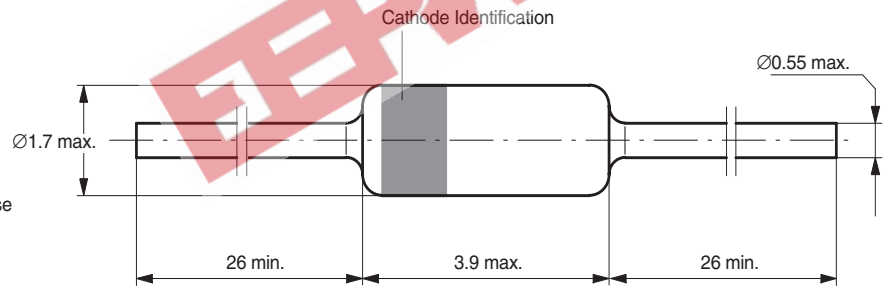
[3] Measured with device junction in thermal equilibrium.

Package Dimensions in mm

technical drawings according to DIN specifications

94 9366

Standard Glass Case
54 A 2 DIN 41880
JEDEC DO 35
Weight max. 0.3g



Ozone Depleting Substances Policy Statement

It is the policy of **Vishay Semiconductor GmbH** to

1. Meet all present and future national and international statutory requirements.
2. Regularly and continuously improve the performance of our products, processes, distribution and operatingsystems with respect to their impact on the health and safety of our employees and the public, as well as their impact on the environment.

It is particular concern to control or eliminate releases of those substances into the atmosphere which are known as ozone depleting substances (ODSs).

The Montreal Protocol (1987) and its London Amendments (1990) intend to severely restrict the use of ODSs and forbid their use within the next ten years. Various national and international initiatives are pressing for an earlier ban on these substances.

Vishay Semiconductor GmbH has been able to use its policy of continuous improvements to eliminate the use of ODSs listed in the following documents.

1. Annex A, B and list of transitional substances of the Montreal Protocol and the London Amendments respectively
2. Class I and II ozone depleting substances in the Clean Air Act Amendments of 1990 by the Environmental Protection Agency (EPA) in the USA
3. Council Decision 88/540/EEC and 91/690/EEC Annex A, B and C (transitional substances) respectively.

Vishay Semiconductor GmbH can certify that our semiconductors are not manufactured with ozone depleting substances and do not contain such substances.

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