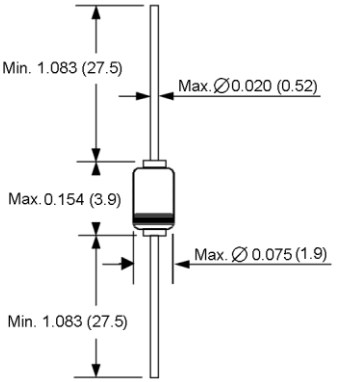
1N746 thru 1N759

Zener Diodes
V_Z Range 3.3 to 12 Volts Power Dissipation 500mW

Features

- Silicon Planar Power Zener Diodes.
- Standard Zener voltage tolerance is ±5% for “A” suffix. Other tolerances are available upon request.

DO-204AH (DO-35 Glass)



Dimensions in inches and (millimeters)

Mechanical Data

- Case: DO-35 Glass Case
- Weight: approx. 0.13 gram

Maximum Ratings and Thermal Characteristics

(T_A=25ºC unless otherwise noted)

Parameter	Symbol	Value	Unit
Zener current (see Table "Characteristics")			
Power dissipation at T_L=75ºC	P_{tot}	500 (1)	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	300 (2)	ºC/W
Maximum junction temperature	T_j	175	ºC
Storage temperature range	T_S	-65 to +175	ºC

Notes: 1. T_L is measured 3/8" from body.
2. Valid provided that leads at a distance of 3/8" from case are kept at ambient temperature.

Electrical Characteristics

(T_J=25°C unless otherwise noted) **Maximum V_F=1.5V at I_F=200mA**

Type number	Nominal zener voltage V_Z @ I_{ZT}[3] (Volts)	Test current I_{ZT} (mA)	Maximum zener impedance Z_{ZT} @ I_{ZT}[1] (Ω)	Maximum regulator current I_{ZM}[2] (mA)	Maximum reverse leakage current	
					T_A=25°C I_R @ V_R = 1V (uA)	T_A=150°C I_R @ V_R = 1V (uA)
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

Notes: 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.