



1N746 thru 1N759

Zener Diodes

V_z Range 3.3 to 12 Volts Power Dissipation 500mW

Features

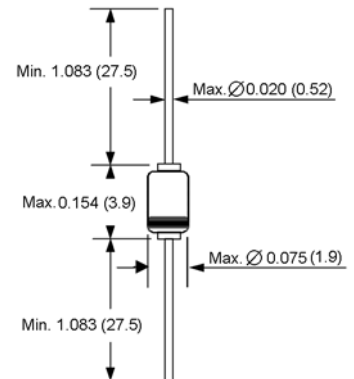
- ◆ Silicon Planar Power Zener Diodes.
- ◆ Standard Zener voltage tolerance is $\pm 5\%$ for "A" suffix. Other tolerances are available upon request.



DO-204AH (DO-35 Glass)

Mechanical Data

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



Dimensions in inches and (millimeters)

Maximum Ratings and Thermal Characteristics

($T_A = 25^\circ\text{C}$ unless otherwise noted)

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

- 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

($T_J=25^\circ\text{C}$ unless otherwise noted) Maximum $V_F=1.5\text{V}$ at $I_F=200\text{mA}$

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	
					$T_A=25^\circ\text{C}$ $I_R @ \hat{V}_R = 1\text{V}$ (μA)	$T_A=150^\circ\text{C}$ $I_R @ \hat{V}_R = 1\text{V}$ (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

- 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.