ELECTRONICS, INC.
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1N746A thru 1N759A
Zener Diode, 1/2 Watt
±5% Tolerance

Features:

- Zener Voltage 3.3 to 12V
- DO35 Package

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

DC Power Dissipation, P_D 500mW
Operating Junction Temperature, T_J . . . . . +175°C
Storage Temperature Range, T_{stg} . . . . . –65° to +200°C
Lead Temperature (During Soldering, 1/16" from case, 10 seconds max), T_L . . . . . +230°C

Electrical Characteristics: (T_A = +25°C, unless otherwise specified)

Device Number	Nominal Zener Voltage V_z @ I_{zt} (Note 1)	Zener Test Current (I_{zt})	Maximum Dynamic Impedance Z_{zt} @ I_{zt} (Note 2)	Maximum Regulator Current I_{ZM} (Note 3)	Typical Temperature Coefficient α_{vz}	Maximum Reverse Leakage Current I_R @ V_R = 1V	
						T_A = +25°C	T_A = +150°C
	Volts	mA	Ohms	mA	%/°C	μA	μA
1N746A	3.3	20	28	110	–0.070	10	30
1N747A	3.6	20	24	100	–0.065	10	30
1N748A	3.9	20	23	95	–0.060	10	30
1N749A	4.3	20	22	85	±0.055	2	30
1N750A	4.7	20	19	75	±0.030	2	30
1N751A	5.1	20	17	70	±0.030	1	20
1N752A	5.6	20	11	65	+0.038	1	20
1N753A	6.2	20	7	60	0.045	0.1	20

Note 1. Measured with device junction in thermal equilibrium.

Note 2. The Zener impedance is derived from the 1kHz 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.

Note 3. valid provided that leads at a distance of 3/8" from case are kept at ambient temperature.

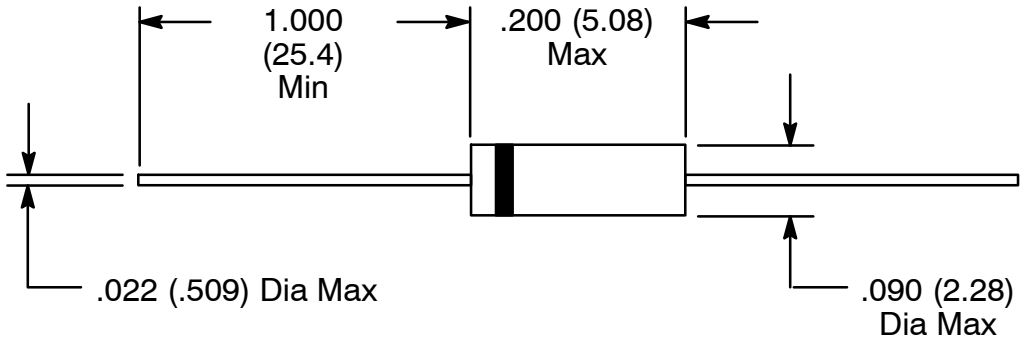
Electrical Characteristics (Cont'd): (T_A = +25°C, unless otherwise specified)

Device Number	Nominal Zener Voltage V_z @ I_{zt} (Note 1)	Zener Test Current (I_{zt})	Maximum Dynamic Impedance Z_{zt} @ I_{zt} (Note 2)	Maximum Regulator Current I_{ZM} (Note 3)	Typical Temperature Coefficient α_{vz}	Maximum Reverse Leakage Current I_R @ V_R = 1V	
						T_A = +25°C	T_A = +150°C
	Volts	mA	Ohms	mA	%/°C	μA	μA
1N754A	6.8	20	5	55	0.050	0.1	20
1N755A	7.5	20	6	50	0.058	0.1	20
1N756A	8.2	20	8	45	0.062	0.1	20
1N757A	9.1	20	10	40	0.068	0.1	20
1N758A	10	20	17	35	0.075	0.1	20
1N759A	12	20	30	30	0.077	0.1	20

Note 1. Measured with device junction in thermal equilibrium.

Note 2. The Zener impedance is derived from the 1kHz 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.

Note 3. valid provided that leads at a distance of 3/8" from case are kept at ambient temperature.



Color Band Denotes Cathode