

1N746A - 1N759A Series Half Watt Zeners

Absolute Maximum Ratings*

TA = 25°C unless otherwise noted

Parameter	Value	Units
Storage Temperature Range	-65 to +200	°C
Maximum Junction Operating Temperature	+ 175	°C
Lead Temperature (1/16" from case for 10 seconds)	+ 230	°C
Total Device Dissipation	500	mW
Derate above 25°C	3.33	mW/°C

*These ratings are limiting values above which the serviceability of the diode may be impaired.

NOTES:

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Tolerance: A = 5%



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Electrical Characteristics

TA = 25°C unless otherwise noted

Device	V _Z (V)	Z _Z (Ω)	@ I _{ZT} (mA)	I _{R1} (μA)	@ V _R (V)	I _{R2} (μA)	@ V _R (V)	T _C (%/°C)	I _{ZM} * (mA)
1N746A	3.3	28	20	10	1.0	30	1.0	- 0.070	110
1N747A	3.6	24	20	10	1.0	30	1.0	- 0.065	100
1N748A	3.9	23	20	10	1.0	30	1.0	- 0.060	95
1N749A	4.3	22	20	2.0	1.0	30	1.0	+/- 0.055	85
1N750A	4.7	19	20	2.0	1.0	30	1.0	+/- 0.030	75
1N751A	5.1	17	20	1.0	1.0	20	1.0	+/- 0.030	70
1N752A	5.6	11	20	1.0	1.0	20	1.0	+ 0.038	65
1N753A	6.2	7.0	20	0.1	1.0	20	1.0	+ 0.045	60
1N754A	6.8	5.0	20	0.1	1.0	20	1.0	+ 0.050	55
1N755A	7.5	6.0	20	0.1	1.0	20	1.0	+ 0.058	50
1N756A	8.2	8.0	20	0.1	1.0	20	1.0	+ 0.062	45
1N757A	9.1	10	20	0.1	1.0	20	1.0	+ 0.068	40
1N758A	10	17	20	0.1	1.0	20	1.0	+ 0.075	35
1N759A	12	30	20	0.1	1.0	20	1.0	+ 0.077	38

*I_{ZM} (Maximum Zener Current Rating) Values shown are based on the JEDEC rating of 400 milliwatts. Where the actual zener voltage (V_Z) is known at the operating point, the maximum zener current may be increased and is limited by the derating curve.