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FAIRCHILD SEMICONDUCTOR TM

Discrete POWER & Signal Technologies

1N746A - 1N759A Series Half Watt Zeners

Absolute Maximum Ratings*

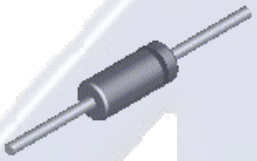
TA = 25°C unless otherwise noted

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 Derate above 25°C	500 3.33	mW 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 T_A=150°C (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 (VZ) is known at the operating point, the maximum zener current may be increased and is limited by the derating curve.

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