

CD746A thru CD759A & CD4370A thru CD4372A



Zener Diode Chip Series

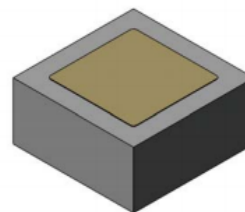
Rev. V4

Features

- 0.5 W Capability with Proper Heat Sinking
- Electrically Equivalent to 1N4370A - 1N4372A, 1N746A - 1N759A

Description

These 0.5 W zener diodes are electrically equivalent to the 1N4370A - 1N4372A, 1N746A - 1N759A series diodes. They are compatible with all wire bonding and die attach techniques with the exception of solder reflow.



These diodes are available in JANHC and JANKC per MIL-PRF-19500/127.

Electrical Specifications: $T_A = +25^\circ\text{C}$ (unless otherwise specified)

Part #	Nominal Zener Voltage $V_Z @ I_{ZT}^1$	Zener Test Current I_{ZT}	Maximum Zener Impedance ² $Z_{ZT} @ I_{ZT}$	Maximum Reverse Voltage $I_R @ V_R$		Maximum Zener Current I_{ZM}
	V	mA	Ω	μA	V	mA
CD4370A	2.4	20	30	100	1.0	155
CD4371A	2.7		30	75		140
CD4372A	3.0		29	50		125
CD746A	3.3	20	28	10	1.0	120
CD747A	3.6		24	5		110
CD748A	3.9		23	5		100
CD749A	4.3	20	22	2	1.0	90
CD750A	4.7		19	5	1.5	85
CD751A	5.1		17	5	2.0	75
CD752A	5.6	20	11	5	2.5	70
CD753A	6.2		7	5	3.5	85
CD754A	6.8		5	2	4.0	60
CD755A	7.5	20	6	2	5.0	55
CD756A	8.2		8	1	6.0	50
CD757A	9.1		10	1	7.0	45
CD758A	10.0	20	17	1	8.0	40
CD759A	12.0		30		9.0	35

1. Zener voltage range equals nominal voltage $\pm 5\%$ for "A" suffix. No suffix denotes $\pm 10\%$, "C" suffix = $\pm 2\%$ and "D" suffix = $\pm 1\%$.
2. Zener impedance is derived by superimposing on I_{ZT} at 60 HZ RMS AC current equal to 10% of I_{ZT} .

* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

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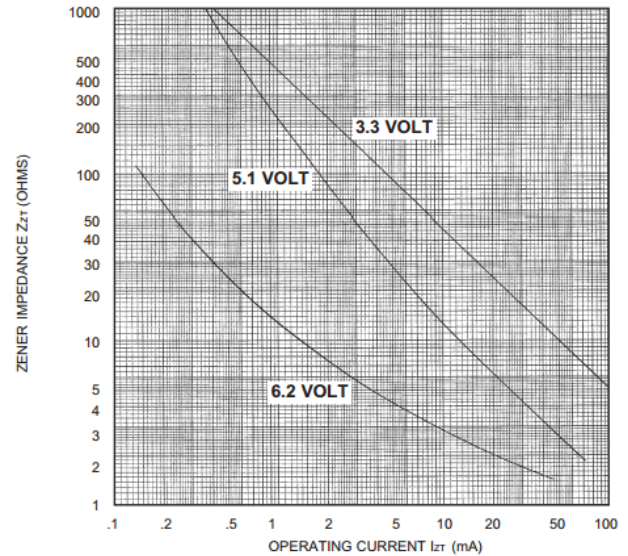
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Absolute Maximum Ratings^{5,6}

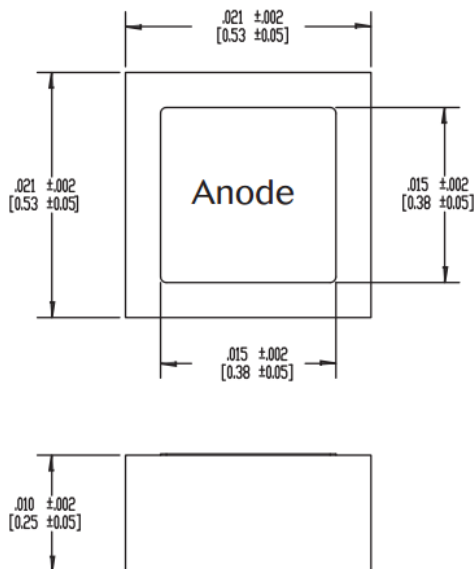
Parameter	Absolute Maximum
Forward Voltage	1.5 V @ 200 mA
Operating Temperature	-65°C to +175°C
Storage Temperature	-65°C to +175°C

- Exceeding any one or combination of these limits may cause permanent damage to this device.
- MACOM does not recommend sustained operation near these survivability limits.

Zener Impedance vs. Operating Current



Die Outline



Metallization: Top: (anode) AL
Back: (cathode) Au

AL Thickness: 25,000 Å Minimum

Gold Thickness: 4,000 Å Minimum

Chip Thickness: 10 mils

Circuit Layout Data: For Zener operation, cathode must be operated positive with respect to anode.

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