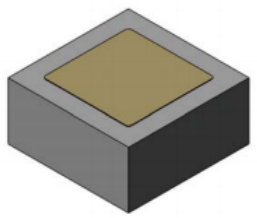
JANHCC & JANKCC1N746A thru 1N759A
JANHCC & JANKCC1N4370A thru 1N4372A

Zener Diode Chip Series

Rev. V1

Features

- Qualified to MIL-PRF-19500/127
- 0.5 W Capability with Proper Heat Sinking
- Electrically Equivalent to 1N4370A - 1N4372A, 1N746A - 1N759A



Description

These 0.5 W zener chips are electrically equivalent to industry standard 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 also available in commercial versions using prefix CD.

Electrical Specifications: T_A = +25°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
4370A	2.4	20	30	100	1.0	155
4371A	2.7	20	30	60	1.0	140
4372A	3.0	20	29	30	1.0	125
746A	3.3	20	28	5	1.0	120
747A	3.6	20	24	3	1.0	110
748A	3.9	20	23	2	1.0	100
749A	4.3	20	22	2	1.0	90
750A	4.7	20	19	5	1.5	85
751A	5.1	20	17	5	2.0	75
752A	5.6	20	11	5	2.5	70
753A	6.2	20	7	5	3.5	85
754A	6.8	20	5	2	4.0	60
755A	7.5	20	6	2	5.0	55
756A	8.2	20	8	1	6.0	50
757A	9.1	20	10	1	7.0	45
758A	10.0	20	17	1	8.0	40
759A	12.0	20	30	1	9.0	35

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

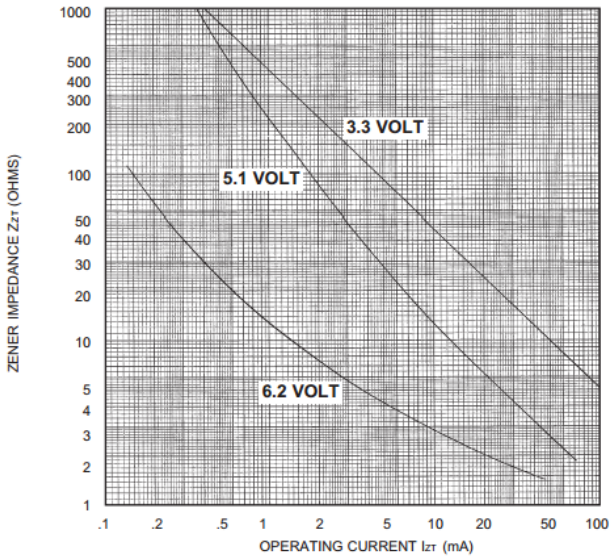
Absolute Maximum Ratings [3,4]

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

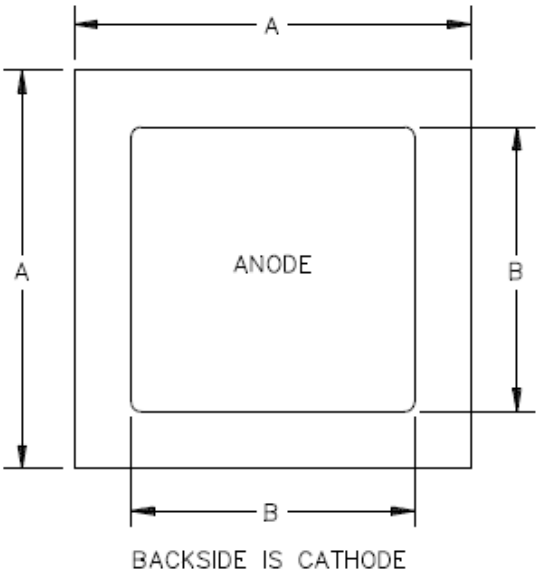
3. Exceeding any one or combination of these limits may cause permanent damage to this device.

4. VPT Components does not recommend sustained operation near these survivability limits.

Zener Impedance vs. Operating Current



Outline Drawing (Die)



Ltr	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	.019	.023	0.48	0.58
B	.013	.017	0.33	0.43
C	.008	.012	0.20	0.30

NOTES:
1. Dimensions are in inches. Millimeters are given for general information only.
2. Element evaluation accomplished utilizing TO-5 package.
3. The physical characteristics of the die thickness are .010 ±.002 (0.25 mm ±0.05 mm).
   Metallization is top = (anode) - AL, back: (cathode) - AU
   AL thickness = 25,000 Å minimum.
   AU thickness = 4,000 Å minimum.

FIGURE 5. Physical dimensions, JANHCC and JANKCC die.