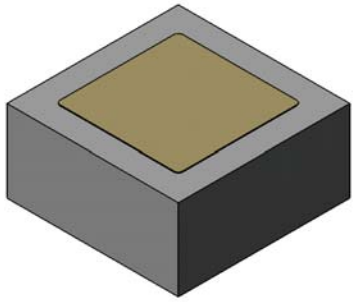
# Zener Diode Chip Series

## CD4614 thru CD4627

**Available in JANHC and JANKC per MIL-PRF-19500/435**

## Features

- All junctions completely protected with silicon dioxide
- 0.5 Watt capability with proper heat sinking
- Electrically equivalent to 1N4614 thru 1N4627
- Compatible with all wire bonding and die attach techniques with the exception of solder reflow.



## Maximum Ratings

Operating Temperature: -65°C to +175°C

Storage Temperature: -65°C to +175°C

Forward Voltage @ 200mA: 1.5 volts maximum

## Electrical Specifications @ +25 °C (Unless Otherwise Specified)

| TYPE NUMBER | NOMINAL ZENER VOLTAGE $V_Z$ @ $I_{ZT}$ (Note 1) | ZENER TEST CURRENT $I_{ZT}$ | MAXIMUM ZENER IMPEDANCE $Z_{ZT}$ @ $I_{ZT}$ (Note 2) | MAXIMUM REVERSE LEAKAGE CURRENT $I_R$ @ $V_R$ | |
|---|---|---|---|---|---|
| | VOLTS | µA | OHMS | µA | VOLTS |
| CD4614 | 1.8 | 250 | 1200 | 7.5 | 1 |
| CD4615 | 2.0 | 250 | 1250 | 5.0 | 1 |
| CD4616 | 2.2 | 250 | 1300 | 4.0 | 1 |
| CD4617 | 2.4 | 250 | 1400 | 2.0 | 1 |
| CD4618 | 2.7 | 250 | 1500 | 1.0 | 1 |
| CD4619 | 3.0 | 250 | 1600 | 0.8 | 1 |
| CD4620 | 3.3 | 250 | 1650 | 7.5 | 1.5 |
| CD4621 | 3.6 | 250 | 1700 | 7.5 | 2 |
| CD4622 | 3.9 | 250 | 1650 | 5.0 | 2 |
| CD4623 | 4.3 | 250 | 1600 | 4.0 | 2 |
| CD4624 | 4.7 | 250 | 1550 | 10.0 | 3 |
| CD4625 | 5.1 | 250 | 1500 | 10.0 | 3 |
| CD4626 | 5.6 | 250 | 1400 | 10.0 | 4 |
| CD4627 | 6.2 | 250 | 1200 | 10.0 | 5 |

NOTE 1 Zener voltage range equals nominal Zener voltage.± 5% for no suffix types. Zener voltage is read using a pulse measurement, 10 milliseconds maximum. "C" suffix = ± 2% and "D" suffix = .± 1 %.

NOTE 2 Zener impedance is derived by superimposing on $I_{ZT}$ a 60 Hz rms AC current equal to 10 % of $I_{ZT}$.

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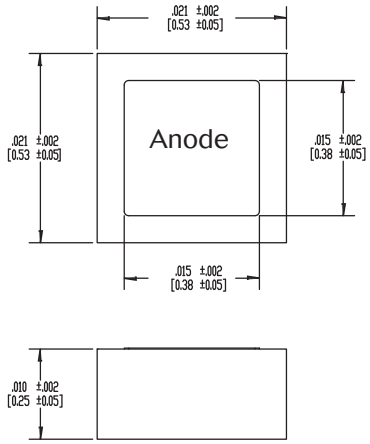
Revision Date: 12/13/2011
New Product

## Outline Drawing




**DESIGN DATA**

**METALLIZATION:** Top: (Anode) Al
Back: (Cathode) Au

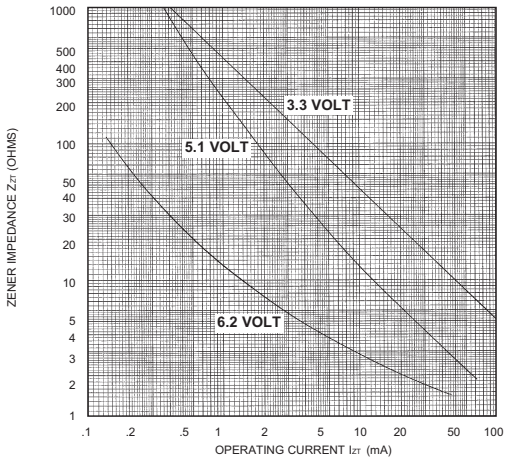
**AL THICKNESS:** 25,000 Å Minimum

**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.

## Graphs




**ZENER IMPEDANCE VS. OPERATING CURRENT**

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