

- 1N4614 THRU 1N4627 AVAILABLE IN JANHC AND JANKC PER MIL-PRF-19500/435
- ZENER DIODE CHIPS
- ALL JUNCTIONS COMPLETELY PROTECTED WITH SILICON DIOXIDE
- ELECTRICALLY EQUIVALENT TO 1N4614 THRU 1N4627
- 0.5 WATT CAPABILITY WITH PROPER HEAT SINKING
- COMPATIBLE WITH ALL WIRE BONDING AND DIE ATTACH TECHNIQUES, WITH THE EXCEPTION OF SOLDER REFLOW

CD4614  
thru  
CD4627

### MAXIMUM RATINGS

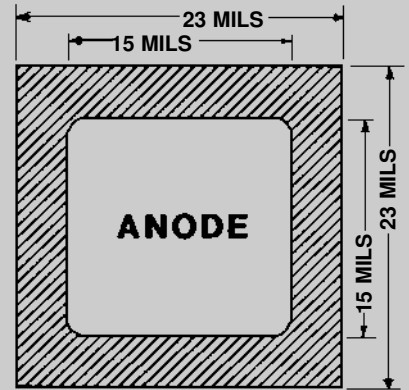
Operating Temperatures: -65°C to +175°C  
Storage Temperatures: -65°C to +175°C  
Forward Voltage @ 200 mA: 1.5 Volts maximum

### ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

TYPE NUMBER	NOMINAL ZENER VOLTAGE $V_Z @ I_{ZT}$	ZENER TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDANCE $Z_{ZT} @ I_{ZT}$	MAXIMUM REVERSE LEAKAGE CURRENT $I_R @ V_R$	
	(Note 1) VOLTS	$\mu A$	(Note 2) OHMS	$\mu A$	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  $\pm 5\%$  for no suffix types. Zener voltage is read using a pulse measurement, 10 milliseconds maximum. "C" suffix =  $\pm 2\%$  tolerance and "D" suffix =  $\pm 1\%$  tolerance.

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



BACKSIDE IS CATHODE

FIGURE 1

### DESIGN DATA

#### METALLIZATION:

Top: (Anode).....Al  
Back: (Cathode).....Au

AL THICKNESS.....25,000 Å Min

GOLD THICKNESS.....4,000 Å Min

CHIP THICKNESS.....10 Mils

#### CIRCUIT LAYOUT DATA:

For Zener operation, cathode must be operated positive with respect to anode.

#### TOLERANCES: ALL

Dimensions  $\pm 2$  mils



# CD4614 thru CD4627

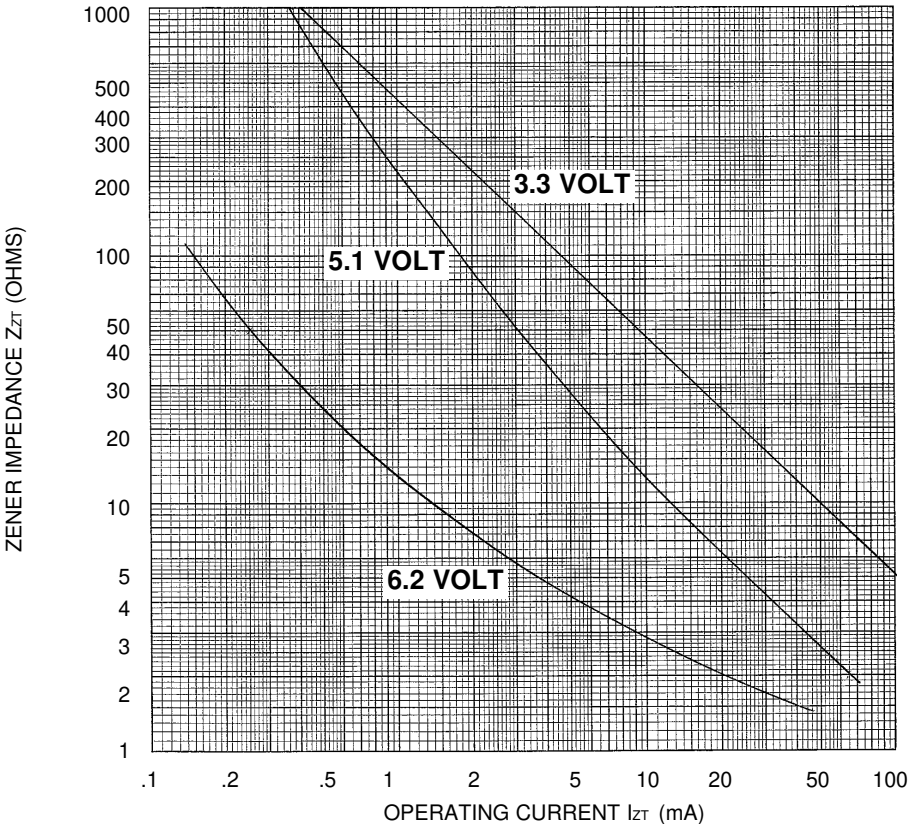


FIGURE 3

## ZENER IMPEDANCE VS. OPERATING CURRENT