

- 1N3821A THRU 1N3828A AVAILABLE IN JANHC
- PER MIL-PRF-19500/115
- 1 WATT CAPABILITY WITH PROPER HEAT SINKING
- ALL JUNCTIONS COMPLETELY PROTECTED WITH SILICON DIOXIDE
- COMPATIBLE WITH ALL WIRE BONDING AND DIE ATTACH TECHNIQUES, WITH THE EXCEPTION OF SOLDER REFLOW

CD3821  
thru  
CD3828A

### MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C  
Storage Temperature: -65°C to +175°C  
Forward Voltage @ 200mA: 1.2 volts maximum

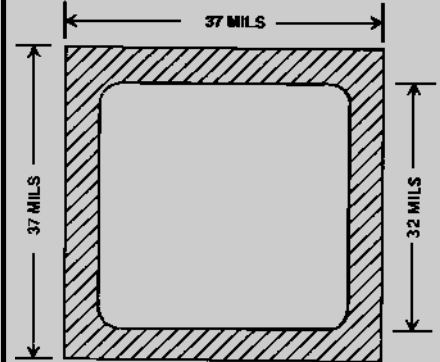
### ELECTRICAL CHARACTERISTICS @ 25°C

CDI TYPE NUMBER  (NOTE 1)	NOMINAL ZENER VOLTAGE $V_Z @ I_{ZT}$ (NOTE 2)	ZENER TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDANCE		MAX. DC ZENER CURRENT $I_{ZM}$	MAX. REVERSE LEAKAGE CURRENT $I_R @ V_R$	
			$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}=1mA$ (NOTE 3)		$\mu A$	VOLTS
CD3821	3.3	76	10	400	276	100	1
CD3821A	3.3	76	10	400	276	100	1
CD3822	3.6	69	10	400	252	75	1
CD3822A	3.6	69	10	400	252	75	1
CD3823	3.9	64	9	400	238	25	1
CD3823A	3.9	64	9	400	238	25	1
CD3824	4.3	58	9	400	213	5	1
CD3824A	4.3	58	9	400	213	5	1
CD3825	4.7	53	8	500	194	5	1
CD3825A	4.7	53	8	500	194	5	1
CD3826	5.1	49	7	550	178	3	1
CD3826A	5.1	49	7	550	178	3	1
CD3827	5.6	45	5	600	162	3	2
CD3827A	5.6	45	5	600	162	3	2
CD3828	6.2	41	2	700	146	3	3
CD3828A	6.2	41	2	700	146	3	3

**NOTE 1** Zener voltage range equals nominal voltage  $\pm 5\%$  for "A" Suffix No Suffix denotes  $\pm 10\%$ . "C" suffix denotes  $\pm 2\%$ , "D" suffix denotes  $\pm 1\%$ .

**NOTE 2** Zener voltage is read using a pulse measurement, 10 milliseconds maximum.

**NOTE 3** 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



# CD3821A thru CD3828A

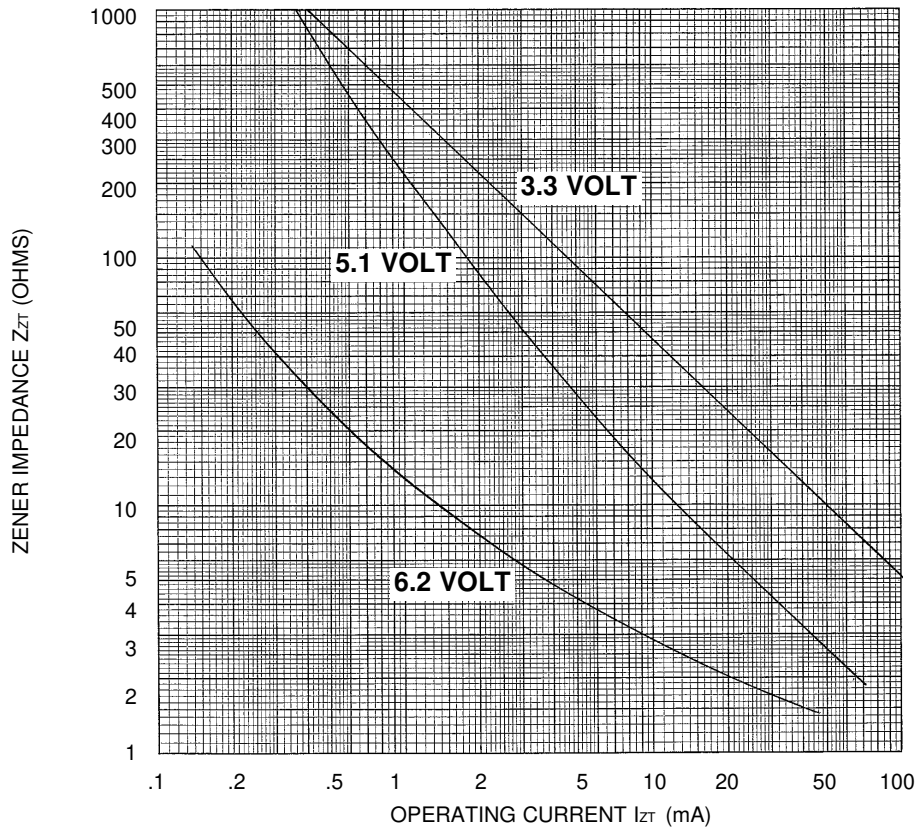


FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT