

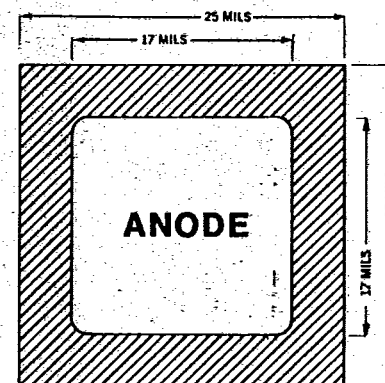
- ZENER DIODE CHIPS
- ALL JUNCTIONS COMPLETELY PROTECTED WITH SILICON DIOXIDE
- ELECTRICALLY EQUIVALENT TO 1N5221B THRU 1N5281B
- GENERAL PURPOSE 500 mW CHIPS
- COMPATIBLE WITH ALL WIRE BONDING AND DIE ATTACH TECHNIQUES

CD5221B thru CD5281B

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

TYPE NUMBER	NOMINAL ZENER VOLTAGE V_Z @ I_Z VOLTS (Note 1)	TEST CURRENT I_Z mA	MAXIMUM ZENER IMPEDANCE (NOTE 2)		MAXIMUM REVERSE CURRENT I_R @ V_R	
			Z_{ZT} @ I_Z Ohms	Z_{ZK} @ $I_{ZK} = 0.25$ mA Ohms	μA	VOLTS
CD5221B	2.4	20	30	1200	100	1.0
CD5222B	2.5	20	30	1250	100	1.0
CD5223B	2.7	20	30	1300	75	1.0
CD5224B	2.8	20	30	1400	75	1.0
CD5225B	3.0	20	29	1600	50	1.0
CD5226B	3.3	20	28	1600	25	1.0
CD5227B	3.6	20	24	1700	15	1.0
CD5228B	3.9	20	23	1900	10	1.0
CD5229B	4.3	20	22	2000	5.0	1.0
CD5230B	4.7	20	19	1900	5.0	2.0
CD5231B	5.1	20	17	1600	5.0	2.0
CD5232B	5.6	20	11	1600	5.0	3.0
CD5233B	6.0	20	7.0	1600	5.0	3.5
CD5234B	6.2	20	7.0	1000	5.0	4.0
CD5235B	6.8	20	5.0	750	3.0	5.0
CD5236B	7.5	20	6.0	500	3.0	6.0
CD5237B	8.2	20	8.0	500	3.0	6.5
CD5238B	8.7	20	8.0	600	3.0	6.5
CD5239B	9.1	20	10	600	3.0	7.0
CD5240B	10	20	17	600	3.0	8.0
CD5241B	11	20	22	600	2.0	8.4
CD5242B	12	20	30	600	1.0	9.1
CD5243B	13	9.5	13	600	0.5	9.9
CD5244B	14	9.0	15	600	0.1	10
CD5245B	15	8.5	16	600	0.1	11
CD5246B	16	7.8	17	600	0.1	12
CD5247B	17	7.4	19	600	0.1	13
CD5248B	18	7.0	21	600	0.1	14
CD5249B	19	6.6	23	600	0.1	14
CD5250B	20	6.2	25	600	0.1	15
CD5251B	22	5.6	29	600	0.1	17
CD5252B	24	5.2	33	600	0.1	18
CD5253B	25	5.0	35	600	0.1	19
CD5254B	27	4.6	41	600	0.1	21
CD5255B	28	4.5	44	600	0.1	21
CD5256B	30	4.2	49	600	0.1	23
CD5257B	33	3.8	58	700	0.1	25
CD5258B	36	3.4	70	700	0.1	27
CD5259B	39	3.2	80	800	0.1	30
CD5260B	43	3.0	93	900	0.1	33
CD5261B	47	2.7	105	1000	0.1	36
CD5262B	51	2.5	125	1100	0.1	39
CD5263B	56	2.2	150	1300	0.1	43
CD5264B	60	2.1	170	1400	0.1	46
CD5265B	62	2.0	185	1400	0.1	47
CD5266B	68	1.8	230	1600	0.1	52
CD5267B	75	1.7	270	1700	0.1	56
CD5268B	82	1.5	330	2000	0.1	62
CD5269B	87	1.4	370	2200	0.1	68
CD5270B	91	1.4	400	2300	0.1	69
CD5271B	100	1.3	500	2600	0.1	76
CD5272B	110	1.1	750	3000	0.1	84
CD5273B	120	1.0	900	4000	0.1	91
CD5274B	130	0.95	1100	4500	0.1	99
CD5275B	140	0.90	1300	4500	0.1	106
CD5276B	150	0.85	1500	5000	0.1	114
CD5277B	160	0.80	1700	5500	0.1	122
CD5278B	170	0.74	1900	5500	0.1	129
CD5279B	180	0.68	2200	6000	0.1	137
CD5280B	190	0.66	2400	6500	0.1	144
CD5281B	200	0.65	2500	7000	0.1	152

Notes on page 64.



BACKSIDE IS CATHODE

FIGURE 1

DESIGN DATA

METALLIZATION:

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

AL THICKNESS... 12000 Å Min

GOLD THICKNESS... 3000 Å Min

CHIP THICKNESS... 15 Mils Max

CIRCUIT LAYOUT DATA:

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



COMPENSATED DEVICES INCORPORATED

166 TREMONT STREET, MELROSE, MASSACHUSETTS 02176

PHONE (617) 665-1071

FAX (617) 665-7379

CD5221B thru CD5281B**MAXIMUM RATINGS**Operating Temperatures: -65°C to $+200^{\circ}\text{C}$ Storage Temperatures: -65°C to $+200^{\circ}\text{C}$

Forward Voltage @ 200 mA: 1.5 Volts

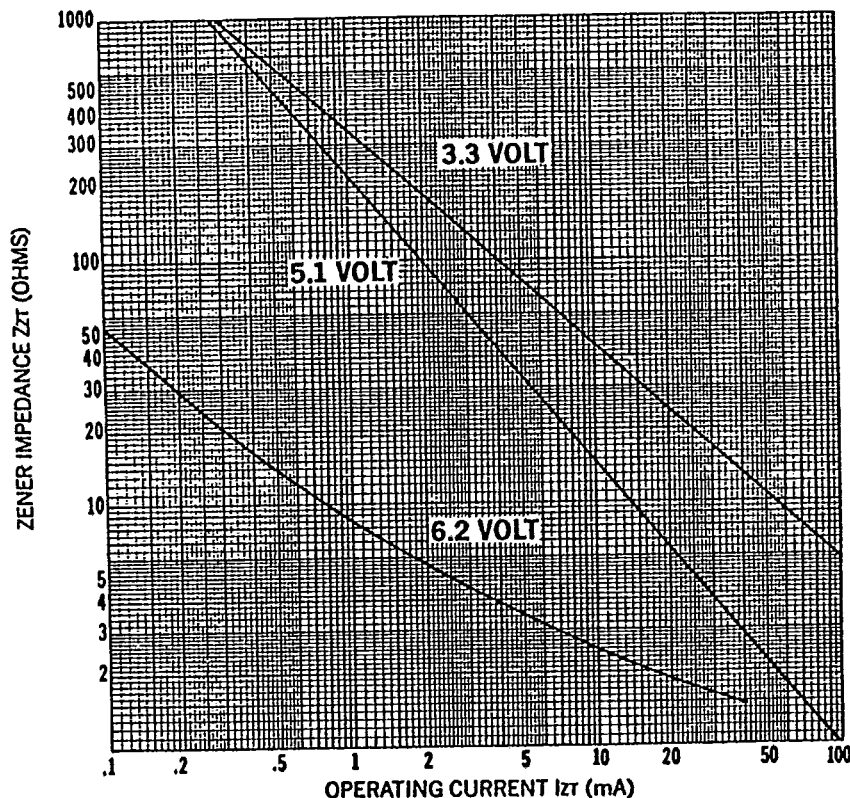


FIGURE 2
TYPICAL CHANGE OF ZENER IMPEDANCE
WITH CHANGE IN OPERATING CURRENT

NOTE 1

Zener voltage range equals
"nominal zener voltage"
(see table) $\pm 5\%$.

NOTE 2

Zener impedance is derived
by superimposing on I_{zt} a
60Hz rms a.c. current equal
to 10% of I_{zt} .

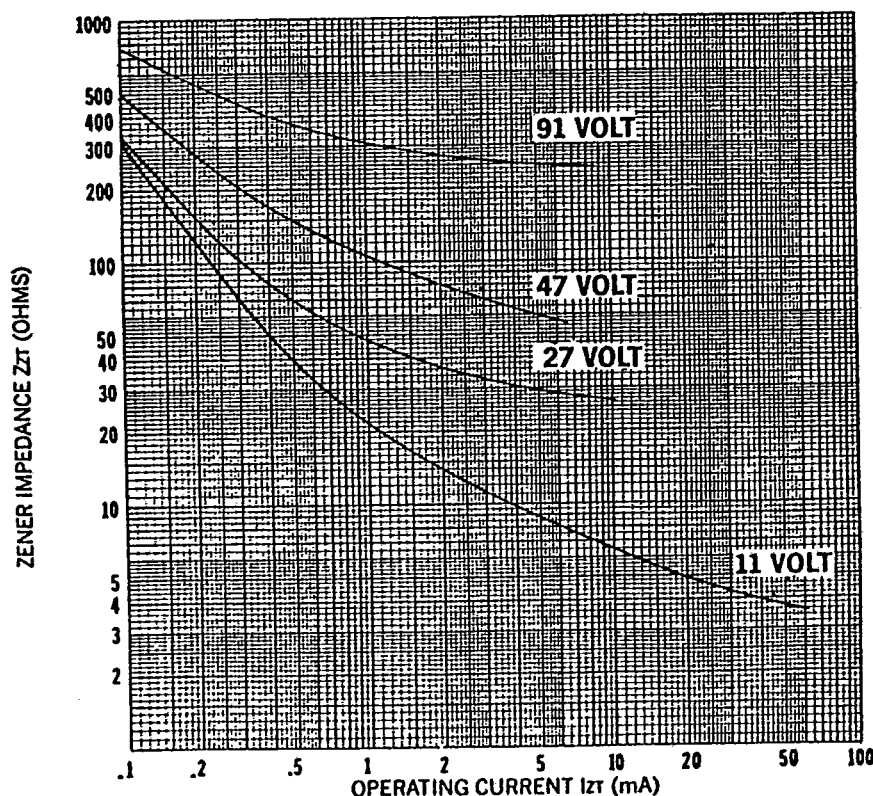


FIGURE 3
TYPICAL CHANGE OF ZENER IMPEDANCE
WITH CHANGE IN OPERATING CURRENT