- **ZENER DIODE CHIPS**
- **ALL JUNCTIONS COMPLETELY PROTECTED WITH SILICON DIOXIDE**
- **ELECTRICALLY EQUIVALENT TO 1N5333B THRU 1N5379B**
- **5 WATT CAPABILITY WITH PROPER HEAT SINKING**
- **COMPATIBLE WITH ALL WIRE BONDING AND DIE ATTACH TECHNIQUES, WITH THE EXCEPTION OF SOLDER REFLOW**

CD5333B thru CD5379B

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise speci½ed

TYPE NUMBER	NOMINAL ZENER VOLTAGE V_Z (Note 1)	TEST CURRENT I_ZT	MAXIMUM ZENER IMPEDANCE Z_{ZT} (Note 2)	MAXIMUM REVERSE CURRENT I_R @ V_R		MAXIMUM ZENER KNEE IMPEDANCE Z_{ZK} @ 1.0 mA (Note 2)
	V	mA	OHMS	μA	VOLTS	OHMS
CD5333B	3.3	380	3.0	300	1.0	400
CD5334B	3.6	350	2.5	150	1.0	500
CD5335B	3.9	320	2.0	50	1.0	500
CD5336B	4.3	290	2.0	10	1.0	500
CD5337B	4.7	260	2.0	5.0	1.0	450
CD5338B	5.1	240	1.5	1.0	1.0	400
CD5339B	5.6	220	1.0	1.0	2.0	400
CD5340B	6.0	200	1.0	1.0	3.0	300
CD5341B	6.2	200	1.0	1.0	3.0	200
CD5342B	6.8	175	1.0	10	5.2	200
CD5343B	7.5	175	1.5	10	5.7	200
CD5344B	8.2	150	1.5	10	6.2	200
CD5345B	8.7	150	2.0	10	6.6	200
CD5346B	9.1	150	2.0	7.5	6.9	150
CD5347B	10	125	2.0	5.0	7.6	125
CD5348B	11	125	2.5	5.0	8.4	125
CD5349B	12	100	2.5	2.0	9.1	125
CD5350B	13	100	2.5	1.0	9.9	100
CD5351B	14	100	2.5	1.0	10.6	75
CD5352B	15	75	2.5	1.0	11.5	75
CD5353B	16	75	2.5	1.0	12.2	75
CD5354B	17	70	2.5	0.5	12.9	75
CD5355B	18	65	2.5	0.5	13.7	75
CD5356B	19	65	3.0	0.5	14.4	75
CD5357B	20	65	3.0	0.5	15.2	75
CD5358B	22	50	3.5	0.5	16.7	75
CD5359B	24	50	3.5	0.5	18.2	100
CD5360B	25	50	4.0	0.5	19	110
CD5361B	27	50	5.0	0.5	20.6	120
CD5362B	28	50	6.0	0.5	21.2	130
CD5363B	30	40	8.0	0.5	22.8	140
CD5364B	33	40	10	0.5	25.1	150
CD5365B	36	30	11	0.5	27.4	160
CD5366B	39	30	14	0.5	29.7	170
CD5367B	43	30	20	0.5	32.7	190
CD5368B	47	25	25	0.5	35.8	210
CD5369B	51	25	27	0.5	38.8	230
CD5370B	56	20	35	0.5	42.6	280
CD5371B	60	20	40	0.5	45.5	350
CD5372B	62	20	42	0.5	47.1	400
CD5373B	68	20	44	0L5	51.7	500
CD5374B	75	20	45	0.5	56	620
CD5375B	82	15	65	0.5	62.2	720
CD5376B	87	15	75	0.5	66	760
CD5377B	91	15	75	0.5	69.2	760
CD5378B	100	12	90	0.5	76	800
CD5379B	110	12	125	0.5	83.6	1000

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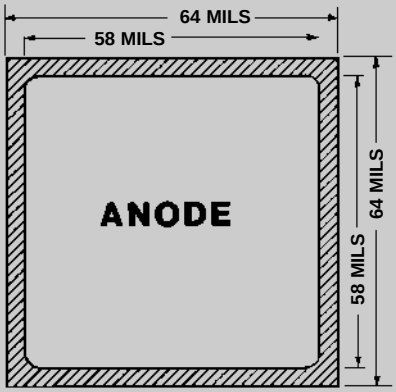

BACKSIDE IS CATHODE

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 ± 2 mils

Microsemi

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CD5333B thru CD5379B

MAXIMUM RATINGS

Operating Temperature: -65°C to +200°C
Storage Temperature: -65°C to +200°C
Forward Voltage @ 1.0Amp = 1.5 Volts maximum

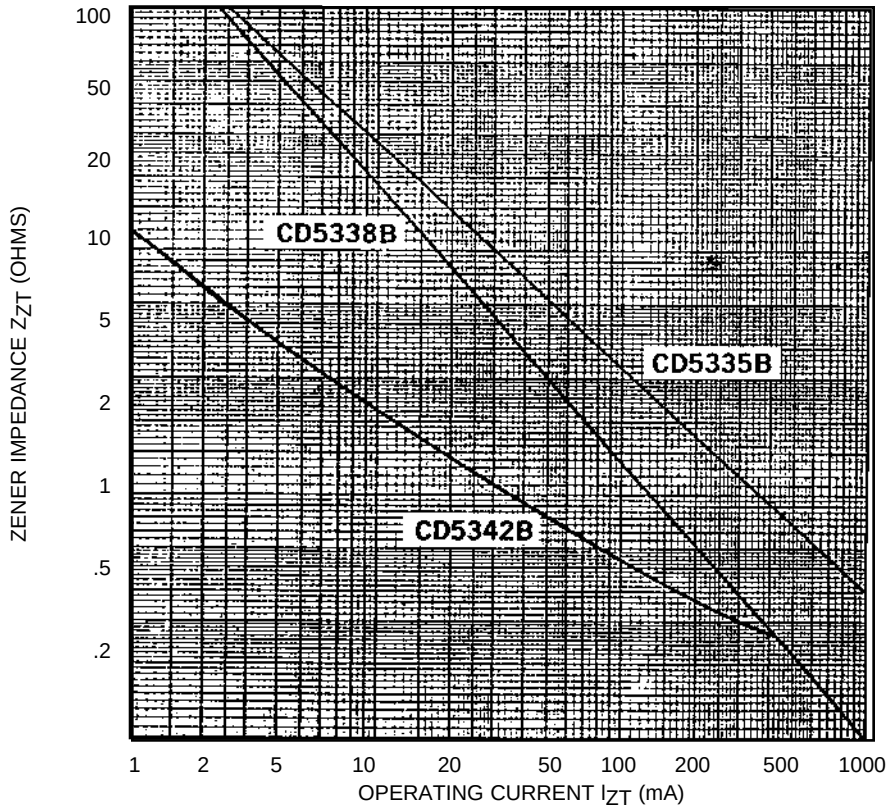

FIGURE 2

ZENER IMPEDANCE VS. OPERATING CURRENT

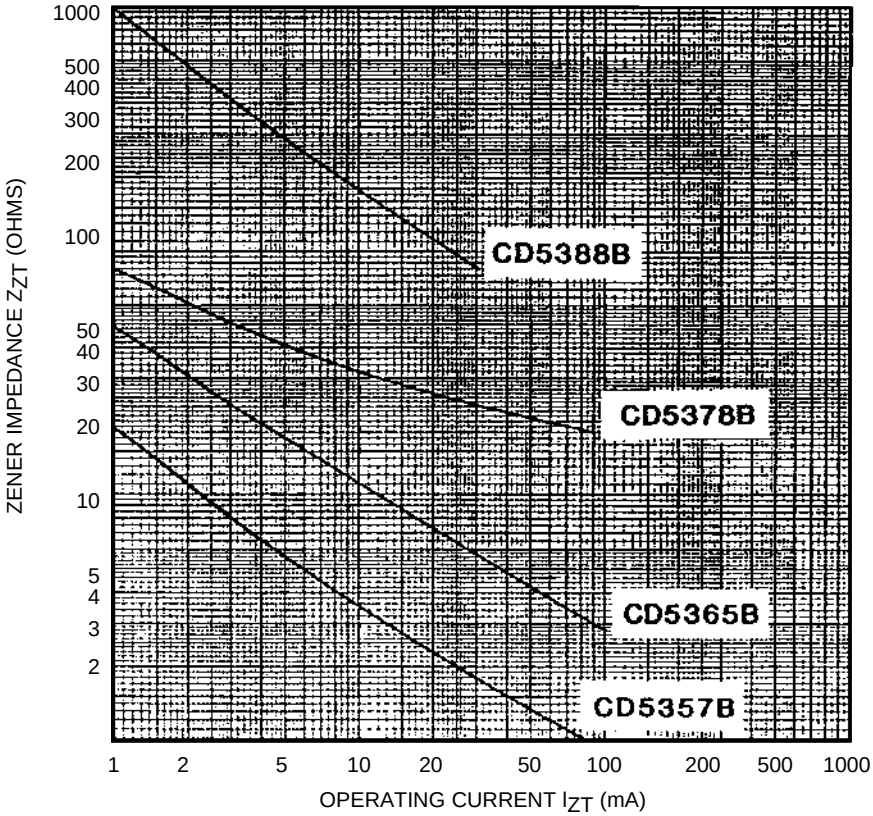

FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT

NOTE 1 Zener voltage range equals nominal voltage ± 5% for “B” Suffix. “A” Suffix denotes ± 10%. No Suffix denotes ± 20%. "C" suffix = ± 2% and "D" suffix = ± 1%.

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

NOTE 3 Zener voltage is read using a pulse measurement, 10 milliseconds maximum.