

- ZENER DIODES
- LEADLESS PACKAGE FOR SURFACE MOUNT
- DOUBLE SLUG CONSTRUCTION

CDLL5221 thru CDLL5281B

MAXIMUM RATINGS

Operating Temperatures: -65°C to +200°C
 Storage Temperatures: -65°C to +200°C
 Power Derating: 3.33mW/°C above 50°C
 Forward Voltage: @ 200mA: 1.1 Volts maximum

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

CDI TYPE NUMBER	NOMINAL ZENER VOLTAGE V _Z @ I _{ZT} VOLTS (Note 1)	TEST CURRENT I _{ZT} mA	MAXIMUM ZENER IMPEDANCE (NOTE 2)		MAXIMUM REVERSE CURRENT I _R @ V _R	
			Z _{ZT} @ I _{ZT} OHMS	Z _{ZK} @ I _{ZK} + 0.25 mA OHMS	μA	VOLTS
CDLL5221	2.4	20	30	1200	100	1.0
CDLL5222	2.5	20	30	1250	100	1.0
CDLL5223	2.7	20	30	1300	75	1.0
CDLL5224	2.8	20	30	1400	75	1.0
CDLL5225	3.0	20	29	1600	50	1.0
CDLL5226	3.3	20	28	1600	25	1.0
CDLL5227	3.6	20	24	1700	15	1.0
CDLL5228	3.9	20	23	1900	10	1.0
CDLL5229	4.3	20	22	2000	5.0	1.0
CDLL5230	4.7	20	19	1900	5.0	2.0
CDLL5231	5.1	20	17	1600	5.0	2.0
CDLL5232	5.6	20	11	1600	5.0	3.0
CDLL5233	6.0	20	7.0	1600	5.0	3.5
CDLL5234	6.2	20	7.0	1000	3.0	4.0
CDLL5235	6.8	20	5.0	750	3.0	5.0
CDLL5236	7.5	20	6.0	500	3.0	6.0
CDLL5237	8.2	20	8.0	500	3.0	6.5
CDLL5238	8.7	20	8.0	600	3.0	6.5
CDLL5239	9.1	20	10	600	3.0	7.0
CDLL5240	10	20	17	600	3.0	8.0
CDLL5241	11	20	22	600	2.0	8.4
CDLL5242	12	20	30	600	1.0	9.1
CDLL5243	13	9.5	13	600	0.5	9.9
CDLL5244	14	9.0	15	600	0.1	10
CDLL5245	15	8.5	16	600	0.1	11
CDLL5246	16	7.8	17	600	0.1	12
CDLL5247	17	7.4	19	600	0.1	13
CDLL5248	18	7.0	21	600	0.1	14
CDLL5249	19	6.6	23	600	0.1	14
CDLL5250	20	6.2	25	600	0.1	15
CDLL5251	22	5.6	29	600	0.1	17
CDLL5252	24	5.2	33	600	0.1	18
CDLL5253	25	5.0	35	600	0.1	19
CDLL5254	27	4.6	41	600	0.1	21
CDLL5255	28	4.5	44	600	0.1	21
CDLL5256	30	4.2	49	600	0.1	23
CDLL5257	33	3.8	58	700	0.1	24
CDLL5258	36	3.4	70	700	0.1	26
CDLL5259	39	3.2	80	800	0.1	29
CDLL5260	43	3.0	93	900	0.1	31
CDLL5261	47	2.7	105	1000	0.1	34
CDLL5262	51	2.5	125	1100	0.1	37
CDLL5263	56	2.2	150	1300	0.1	41
CDLL5264	60	2.1	170	1400	0.1	44
CDLL5265	62	2.0	185	1400	0.1	45
CDLL5266	68	1.8	230	1600	0.1	49
CDLL5267	75	1.7	270	1700	0.1	53
CDLL5268	82	1.5	330	2000	0.1	59
CDLL5269	87	1.4	370	2200	0.1	65
CDLL5270	91	1.4	400	2300	0.1	66
CDLL5271	100	1.3	500	2600	0.1	72
CDLL5272	110	1.1	750	3000	0.1	80
CDLL5273	120	1.0	900	4000	0.1	86
CDLL5274	130	0.95	1100	4500	0.1	94
CDLL5275	140	0.90	1300	4500	0.1	101
CDLL5276	150	0.85	1500	5000	0.1	108
CDLL5277	160	0.80	1700	5500	0.1	116
CDLL5278	170	0.74	1900	5500	0.1	123
CDLL5279	180	0.68	2200	6000	0.1	130
CDLL5280	190	0.66	2400	6500	0.1	137
CDLL5281	200	0.65	2500	7000	0.1	144

NOTE 1 "B" suffix = ± 5%, "A" suffix = ± 10%, no suffix = ± 20%

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

NOTE 3 Nominal zener voltage is measured with the device junction in thermal equilibrium and the temperature of the end cap of the case equalling 30°C ± 2°C.

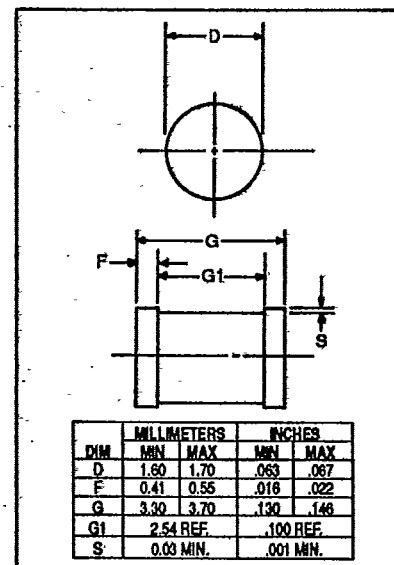


FIGURE 1

DESIGN DATA

CASE: DO-213AA, Hermetically sealed glass case. (MELF, SOD-80, LL34)

LEAD FINISH: Tin/Lead

THERMAL RESISTANCE: 100 °C/W (Typical) junction to END CAP

POLARITY: Diode to be operated with the banded (cathode) end positive with respect to the opposite end.

WEIGHT: 0.05 grams (Typical)

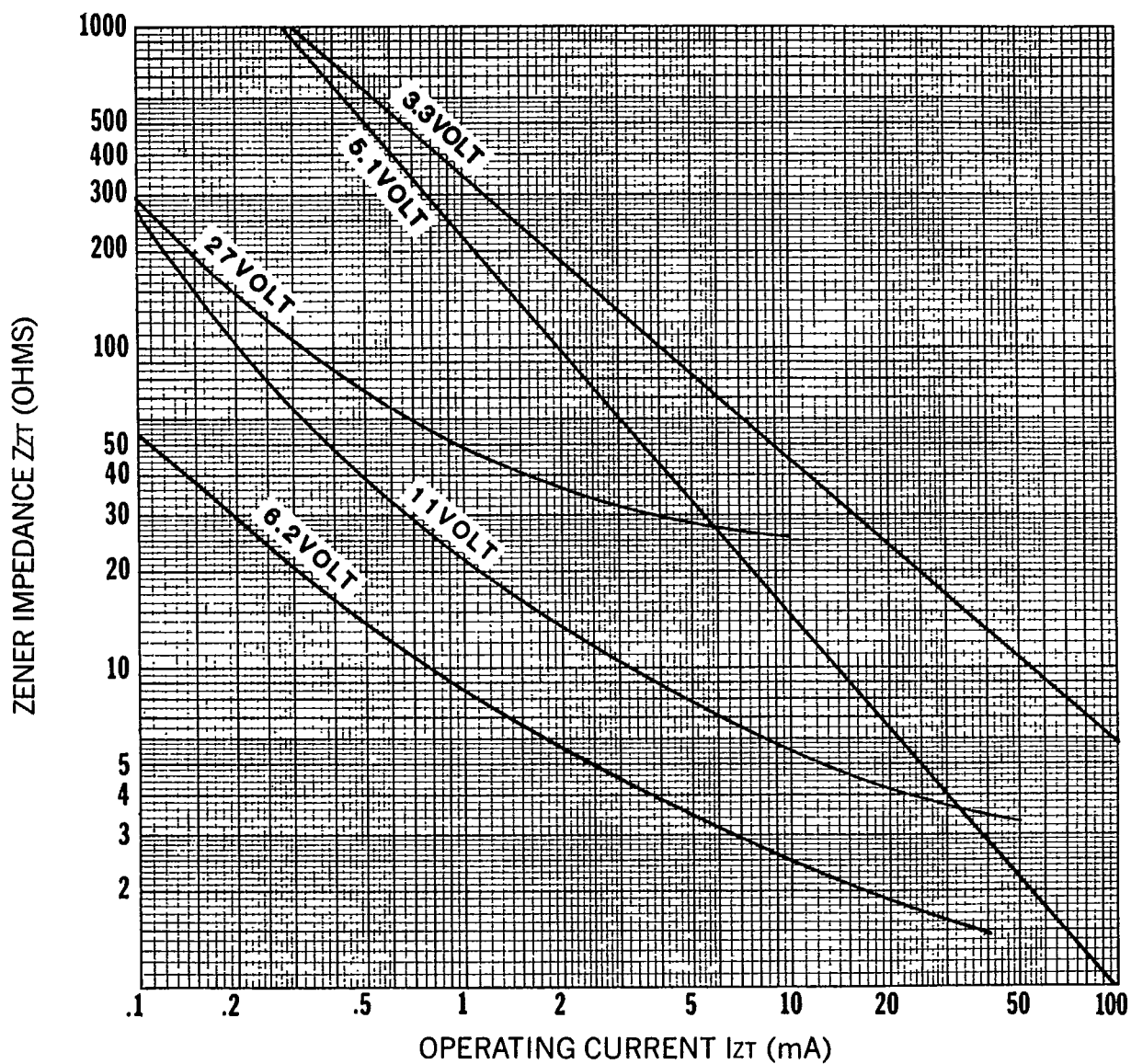
MOUNTING POSITION: Any.



COMPENSATED DEVICES INCORPORATED

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CDLL5221B thru CDLL5281B**FIGURE 2**

**TYPICAL CHANGE OF ZENER IMPEDANCE
WITH CHANGE IN OPERATING CURRENT FOR
NOMINAL VOLTAGES SHOWN**

PACKAGING DATA

BULK PACK

PACKAGE	QUANTITY PER CONTAINER	
	PLASTIC BAGS	VIALS
DO-213AA (MELF, LL34, SOD-80)	5,000	500
DO-213AB (MELF, LL41)	5,000	500

TAPE & REEL

PACKAGE	TAPE WIDTH (MM)	REEL SIZE (INCHES)	QUANTITY PER REEL
DO-213AA (MELF, LL34, SOD-80)	8	7	2,000
		13	10,000
DO-213AB (MELF, LL41)	12	7	1,500
		13	6,000

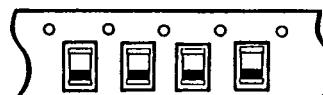
ORIENTATION OPTIONS

Option 1



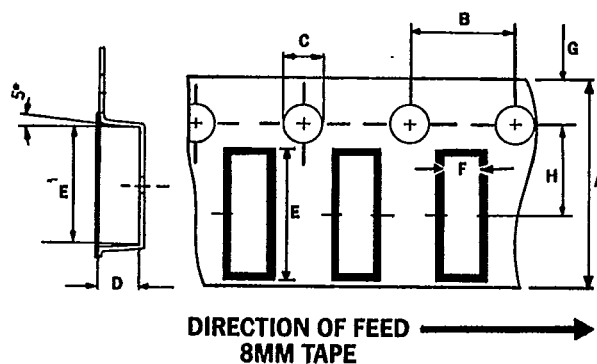
CATHODE BAND AT
SPROCKET HOLE SIDE
(STANDARD)

Option 2

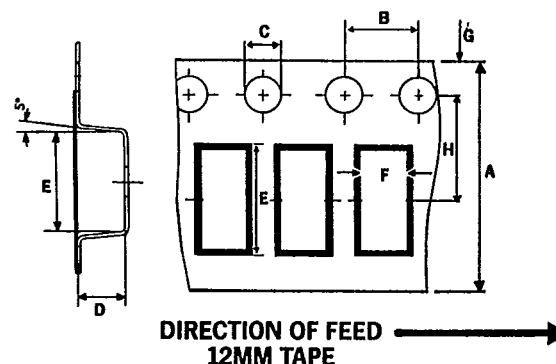


CATHODE BAND AWAY FROM
SPROCKET HOLE SIDE
(ON REQUEST)

TAPE DIMENSIONS



Accumulated pitch tolerance is ± 0.2 mm over 10 pitches



Accumulated pitch tolerance is ± 0.2 mm over 10 pitches

ALL DIMENSIONS IN MM

	A	B	C	D	E	F	G	H
8MM TAPE	8.0 ± 0.3	4.0 ± 0.1	1.5 ± 0.1	2.0 MAX	2.0 MAX	4.0 MAX	1.75 ± 0.1	3.5 ± 0.05
12MM TAPE	12.0 ± 0.3	4.0 ± 0.1	1.5 ± 0.1	3.0 MAX	3.0 MAX	5.5 MAX	1.75 ± 0.1	5.5 ± 0.05