- **50 μA, LOW OPERATING CURRENT, ZENER DIODES**
- **DOUBLE PLUG CONSTRUCTION**
- **METALLURGICALLY BONDED**

1N4678
thru
1N4717

MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C
Storage Temperature: -65°C to +175°C
Power Dissipation: 500mW @ +50°C
DC Power Derating: 4 mW / °C above +50°C
Forward Voltage: 1.1 Volts maximum @ 200 mA

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

CDI TYPE NUMBER (Note 1)	NOMINAL ZENER VOLTAGE V_Z	ZENER TEST CURRENT I_{ZT}	MAXIMUM VOLTAGE REGULATION ΔV_Z (Note 2)	MAXIMUM REVERSE LEAKAGE CURRENT I_R @ V_R		MAXIMUM DC ZENER CURRENT I_{ZM}
	VOLTS	μA	VOLTS	μA	VOLTS	mA
1N4678	1.8	50	0.70	7.5	1.0	120.0
1N4679	2.0	50	0.70	5.0	1.0	110.0
1N4680	2.2	50	0.75	4.0	1.0	100.0
1N4681	2.4	50	0.80	2.0	1.0	95.0
1N4682	2.7	50	0.85	1.0	1.0	90.0
1N4683	3.0	50	0.90	0.8	1.0	85.0
1N4684	3.3	50	0.95	7.5	1.5	80.0
1N4685	3.6	50	0.95	7.5	2.0	75.0
1N4686	3.9	50	0.97	5.0	2.0	70.0
1N4687	4.3	50	0.99	4.0	2.0	65.0
1N4688	4.7	50	0.99	10.0	3.0	60.0
1N4689	5.1	50	0.97	10.0	3.0	55.0
1N4690	5.6	50	0.96	10.0	4.0	50.0
1N4691	6.2	50	0.95	10.0	5.0	45.0
1N4692	6.8	50	0.90	10.0	5.1	35.0
1N4693	7.5	50	0.75	10.0	5.7	31.8
1N4694	8.2	50	0.50	1.0	6.2	29.0
1N4695	8.7	50	0.10	1.0	6.6	27.4
1N4696	9.1	50	0.08	1.0	6.9	26.2
1N4697	10.0	50	0.10	1.0	7.6	24.8
1N4698	11.0	50	0.11	0.05	8.4	21.6
1N4699	12.0	50	0.12	0.05	9.1	20.4
1N4700	13.0	50	0.13	0.05	9.8	19.0
1N4701	14.0	50	0.14	0.05	10.6	17.5
1N4702	15.0	50	0.15	0.05	11.4	16.3
1N4703	16.0	50	0.16	0.05	12.1	15.4
1N4704	17.0	50	0.17	0.05	12.9	14.5
1N4705	18.0	50	0.18	0.05	13.6	13.2
1N4706	19.0	50	0.19	0.05	14.4	12.5
1N4707	20.0	50	0.20	0.01	15.2	11.9
1N4708	22.0	50	0.22	0.01	16.7	10.8
1N4709	24.0	50	0.24	0.01	18.2	9.9
1N4710	25.0	50	0.25	0.01	19.0	9.5
1N4711	27.0	50	0.27	0.01	20.4	8.8
1N4712	28.0	50	0.28	0.01	21.2	8.5
1N4713	30.0	50	0.30	0.01	22.8	7.9
1N4714	33.0	50	0.33	0.01	25.0	7.2
1N4715	36.0	50	0.36	0.01	27.3	6.6
1N4716	39.0	50	0.39	0.01	29.6	6.1
1N4717	43.0	50	0.43	0.01	32.6	5.5

NOTE 1 The JEDEC type numbers shown above have a standard tolerence of ±5% of the nominal Zener volume. V_Z is measured with the diode in thermal equilibrium at 25°C ± 3°C.

NOTE 2 Vz @ 100 μA minus Vz @ 10 μA.

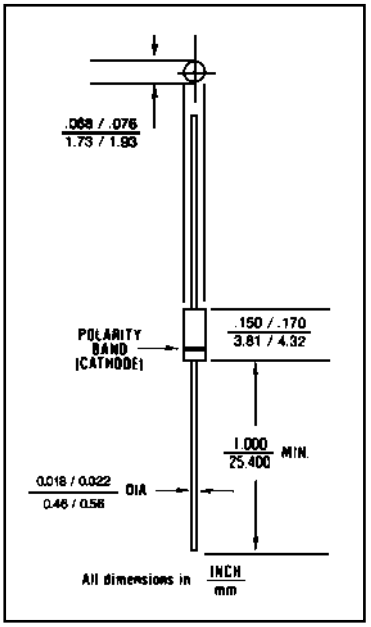


FIGURE 1

DESIGN DATA

CASE: Hermetically sealed glass case. DO – 35 outline.

LEAD MATERIAL: Copper clad steel.

LEAD FINISH: Tin / Lead

THERMAL RESISTANCE: ($R_{\Theta JEC}$): 250 °C/W maximum at L = .375 inch

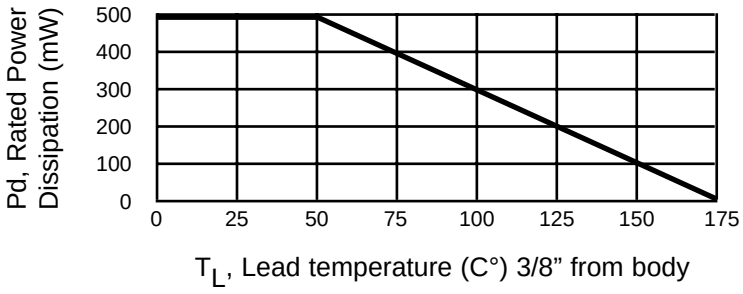
THERMAL IMPEDANCE: ($Z_{\Theta JX}$): 35 °C/W maximum

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

MOUNTING POSITION: ANY.

COMPENSATED DEVICES INCORPORATED
22 COREY STREET, MELROSE, MASSACHUSETTS 02176
PHONE (781) 665-1071 FAX (781) 665-7379
WEBSITE: http://www.cdi-diodes.com E-mail: mail@cdi-diodes.com

FIGURE 2



POWER DERATING CURVE

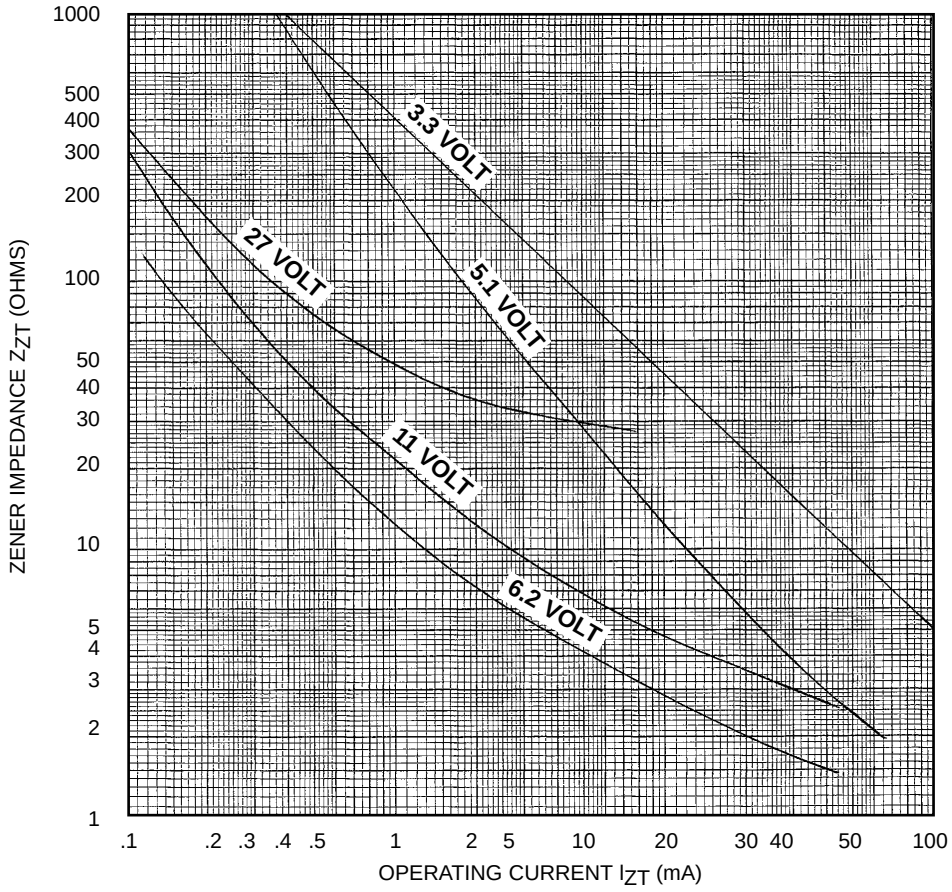


FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT