- **1N4614-1THRU 1N4627-1 AVAILABLE IN JAN, JANTX, JANTXV AND JANS PER MIL-PRF-19500/435**
- **LOW CURRENT OPERATION AT 250 μA**
- **LOW REVERSE LEAKAGE AND LOW NOISE CHARACTERISTICS**
- **DOUBLE PLUG CONSTRUCTION**
- **METALLURGICALLY BONDED**

1N4614 thru 1N4627 and 1N4614-1 thru 1N4627-1

MAXIMUM RATINGS

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

*** ELECTRICAL CHARACTERISTICS** @ 25°C, unless otherwise speci½ed.

JEDEC TYPE NUMBER	NOMINAL ZENER VOLTAGE V_Z @ I_{ZT} (Note 1)	ZENER TEST CURRENT I_{ZT}	MAXIMUM ZENER IMPEDANCE Z_{ZT} @ I_{ZT} (Note 2)	MAXIMUM REVERSE LEAKAGE CURRENT I_R @ V_R		MAXIMUM DC ZENER CURRENT I_{ZM}	MAXIMUM NOISE DENSITY N_D
	VOLTS	μA	OHMS	μA	VOLTS	mA	μV/ Hz
1N4614	1.8	250	1200	7.5	1	120	1
1N4615	2.0	250	1250	5.0	1	110	1
1N4616	2.2	250	1300	4.0	1	100	1
1N4617	2.4	250	1400	2.0	1	95	1
1N4618	2.7	250	1500	1.0	1	90	1
1N4619	3.0	250	1600	0.8	1	87	1
1N4620	3.3	250	1650	7.5	1.5	85	1
1N4621	3.6	250	1700	7.5	2	83	1
1N4622	3.9	250	1650	5.0	2	80	1
1N4623	4.3	250	1600	4.0	2	77	1
1N4624	4.7	250	1550	10.0	3	75	1
1N4625	5.1	250	1500	10.0	3	70	2
1N4626	5.6	250	1400	10.0	4	65	4
1N4627	6.2	250	1200	10.0	5	61	5

* JEDEC Registered Data.

NOTE 1 The JEDEC type numbers shown above have a Zener voltage tolerance of ± 5% of the nominal Zener voltage. Vz is measured with the device junction in thermal equilibrium at an ambient themperature of 25°C ± 3°C. A "C" suffix denotes a ± 2% tolerance and a "D" suffix denotes a ± 1% tolerance.

NOTE 2 Zener impedance is derived by superimposing on I_{ZT} A 60Hz rms a.c. current equal to 10% of I_{ZT} (25 μA a.c.)

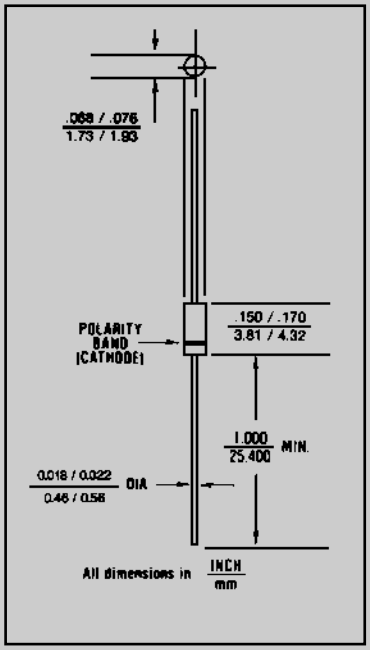

FIGURE 1

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.

Microsemi

6 LAKE STREET, LAWRENCE, MASSACHUSETTS 01841
PHONE (978) 620-2600 FAX (978) 689-0803
WEBSITE: http://www.microsemi.com

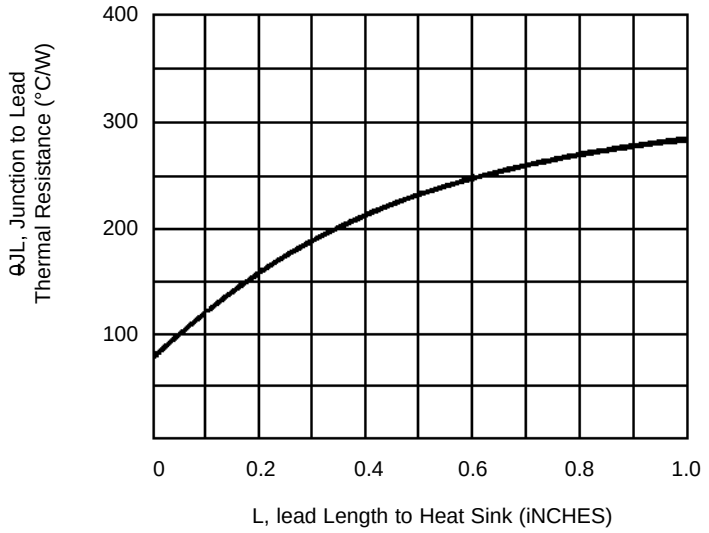

FIGURE 2

TYPICAL THERMAL RESISTANCE

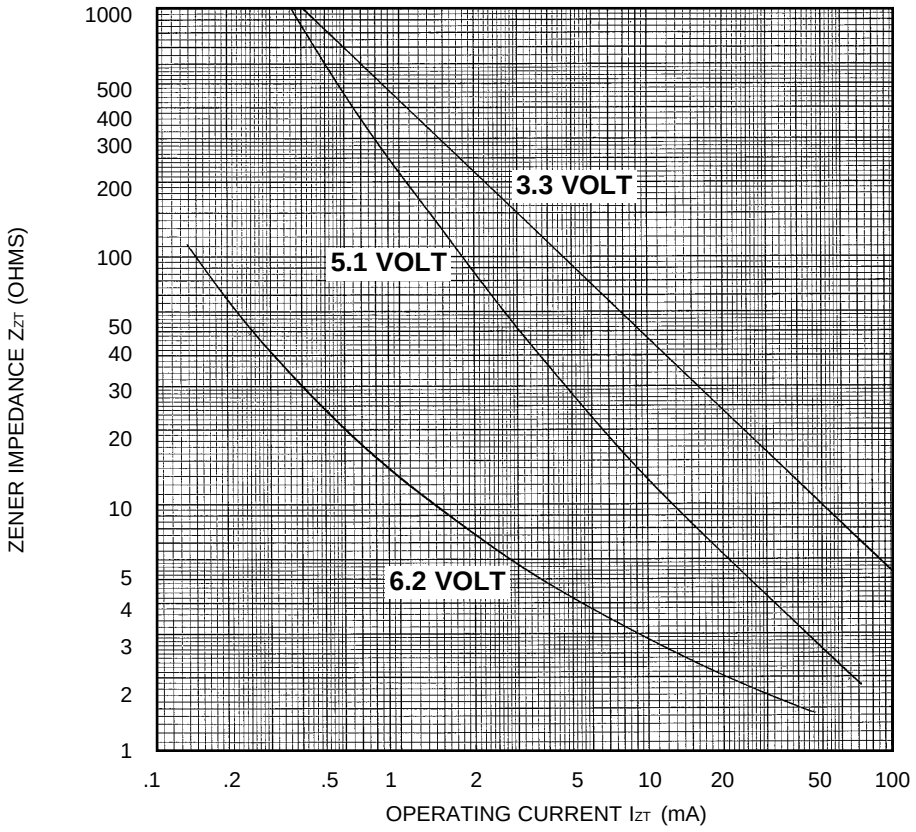

FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT