

- 1N4614-1 THRU 1N4627-1 AVAILABLE IN JAN, JANTX, JANTXV AND JANS PER MIL-PRF-19500/435
- LOW CURRENT OPERATION AT 250 μ A
- 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 specified.

JEDEC TYPE NUMBER	NOMINAL ZENER VOLTAGE $V_Z @ I_{ZT}$	ZENER TEST CURRENT I_{ZT}	MAXIMUM ZENER IMPEDANCE $Z_{ZT} @ I_{ZT}$	MAXIMUM REVERSE LEAKAGE CURRENT $I_R @ V_R$		MAXIMUM DC ZENER CURRENT I_{ZM}	MAXIMUM NOISE DENSITY N_D
	(Note 1) VOLTS	μ A	(Note 2) OHMS	μ A	VOLTS	mA	μ V / 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 $\pm 5\%$ of the nominal Zener voltage. V_Z is measured with the device junction in thermal equilibrium at an ambient temperature of $25^\circ\text{C} \pm 3^\circ\text{C}$. A "C" suffix denotes a $\pm 2\%$ tolerance and a "D" suffix denotes a $\pm 1\%$ 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 μ A a.c.)

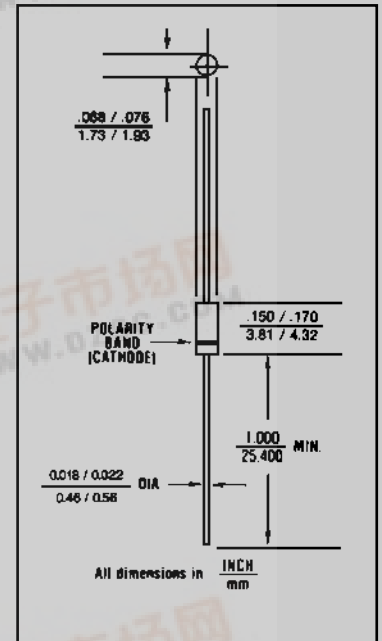


FIGURE 1

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 $^\circ\text{C}/\text{W}$ maximum at $L = .375$ inch

THERMAL IMPEDANCE: ($Z_{\theta JX}$): 35 $^\circ\text{C}/\text{W}$ maximum

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

MOUNTING POSITION: ANY.



1N4614 thru 1N4627 INCLUDING -1 VERSIONS

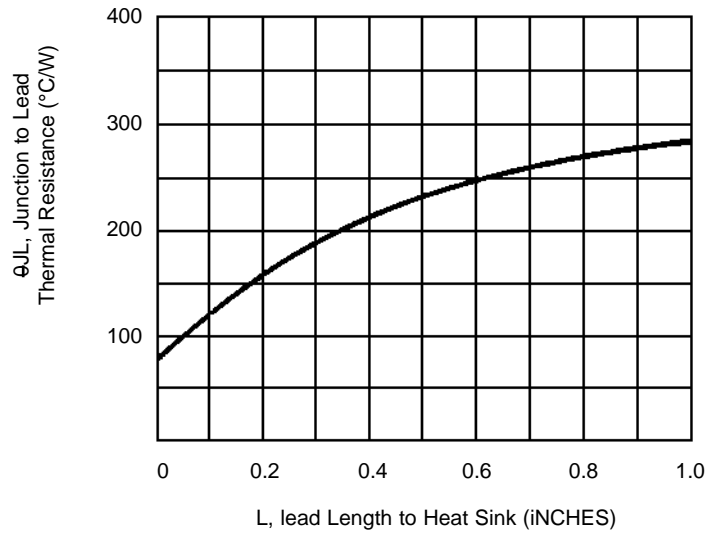


FIGURE 2

TYPICAL THERMAL RESISTANCE

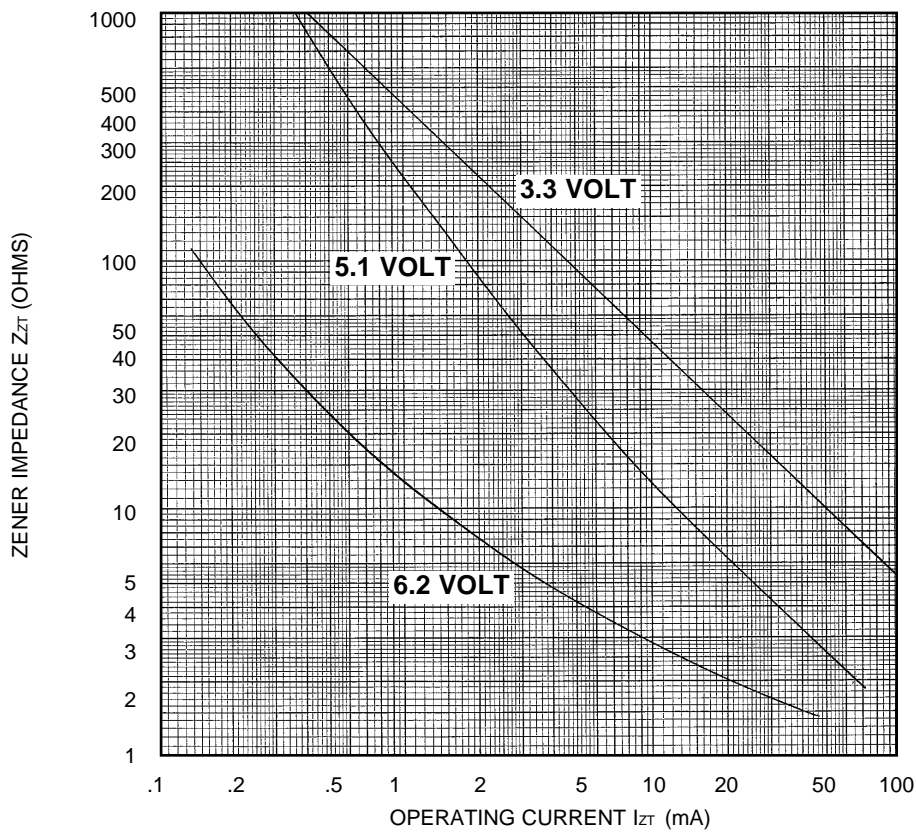


FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT