D I G I T R O N S E M I C O N D U C T O R S

1N4916(A)-1N4932(A)

19.2 VOLT LOW NOISE TEMPERATURE COMPENSATED ZENER REFERENCE DIODES

MAXIMUM RATINGS

Characteristics	Values
Junction and storage temperatures	-65 to +175°C
DC power dissipation	500mW @ 50°C
Power derating	4 mW/°C above 50°C

I_R = 15µA @ 25°C and V_R = 12V

ELECTRICAL CHARACTERISTICS

Part number	Test current	Maximum voltage change with temperature	Temperature range	Effective temperature coefficient	Maximum dynamic impedance	Maximum noise density
	I_{ZT}	ΔV_{ZT}		α_{VZ}	Z_{ZT}	N_D
	Note 1	Note 2		Note 3	Note 4	
	mA	Volts	°C	±%/°C	Ohms	µV/√Hz
1N4916	0.5	0.144	25 to +100	0.01	600	1.0
1N4916A	0.5	0.298	-55 to +100	0.01	600	1.0
1N4917	0.5	0.072	25 to +100	0.005	600	1.0
1N4917A	0.5	0.149	-55 to +100	0.005	600	1.0
1N4918	0.5	0.029	25 to +100	0.002	600	1.0
1N4918A	0.5	0.060	-55 to +100	0.002	600	1.0
1N4919	1.0	0.144	25 to +100	0.01	300	0.5
1N4919A	1.0	0.298	-55 to +100	0.01	300	0.5
1N4920	1.0	0.072	25 to +100	0.005	300	0.5
1N4920A	1.0	0.149	-55 to +100	0.005	300	0.5
1N4921	1.0	0.029	25 to +100	0.002	300	0.5
1N4921A	1.0	0.060	-55 to +100	0.002	300	0.5
1N4922	2.0	0.144	25 to +100	0.01	150	0.25
1N4922A	2.0	0.298	-55 to +100	0.01	150	0.25
1N4923	2.0	0.072	25 to +100	0.005	150	0.25
1N4923A	2.0	0.149	-55 to +100	0.005	150	0.25
1N4924	2.0	0.029	25 to +100	0.002	150	0.25
1N4924A	2.0	0.060	-55 to +100	0.002	150	0.25
1N4925	4.0	0.144	25 to +100	0.01	75	0.22
1N4925A	4.0	0.298	-55 to +100	0.01	75	0.22
1N4926	4.0	0.072	25 to +100	0.005	75	0.22
1N4926A	4.0	0.149	-55 to +100	0.005	75	0.22
1N4927	4.0	0.029	25 to +100	0.002	75	0.22
1N4927A	4.0	0.060	-55 to +100	0.002	75	0.22
1N4928	4.0	0.014	25 to +100	0.001	75	0.22
1N4928A	4.0	0.030	-55 to +100	0.001	75	0.22
1N4929	7.5	0.144	25 to +100	0.01	36	0.20
1N4929A	7.5	0.298	-55 to +100	0.01	36	0.20
1N4930	7.5	0.072	25 to +100	0.005	36	0.20
1N4930A	7.5	0.149	-55 to +100	0.005	36	0.20
1N4931	7.5	0.029	25 to +100	0.002	36	0.20
1N4931A	7.5	0.060	-55 to +100	0.002	36	0.20
1N4932	7.5	0.014	25 to +100	0.001	36	0.20
1N4932A	7.5	0.030	-55 to +100	0.001	36	0.20

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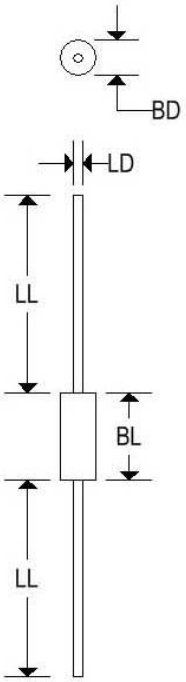
1N4916(A)-1N4932(A)

19.2 VOLT LOW NOISE TEMPERATURE COMPENSATED ZENER REFERENCE DIODES

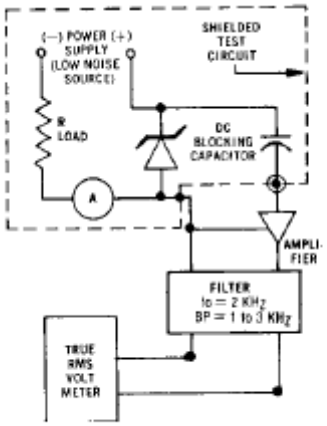
Note 1. Nominal voltage for all types is 19.2 volts ±5%
Note 2. Referred to as the "box" measurement method, the $\triangle V_{ZT}$ is the maximum voltage variance that will occur as the voltage is scanned through all temperatures between the temperature range limits.
Note 3. The effective temperature coefficients are tabulated in %/°C primarily for information only because temperature compensated diodes inherently have a non-linear voltage temperature relationship.
Note 4. The dynamic zener impedance Z_{ZT} is derived from the resulting ac voltage developed when a 60Hz, rms, ac current equal to 10% of the dc zener current I_{ZT} is superimposed on I_{ZT}.
Note 5. To specify radiation hardened devices, use "RH" prefix instead of "1N".

MECHANICAL CHARACTERISTICS

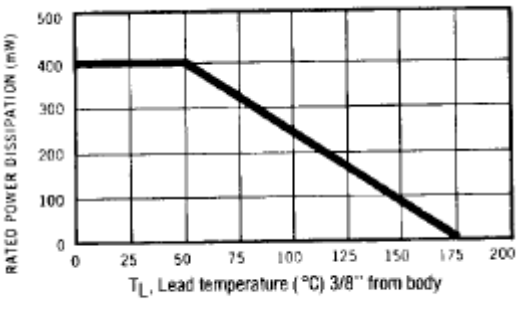
Case	DO-35 hermetically sealed glass
Marking	Body painted, alpha numeric
Polarity	Cathode band



	DO-35			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.055	0.090	1.400	2.290
BL	0.120	0.200	3.050	5.080
LD	0.018	0.022	0.460	0.560
LL	1.000	1.500	25.400	38.100



NOISE DENSITY MEASUREMENT CIRCUIT



POWER DERATING CURVE

Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).
Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.

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