DIGITRON™ Semiconductors

High-reliability discrete products
and engineering services since 1977

1N746-1N759

SILICON PLANAR ZENER DIODES

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS

Operating and Storage Temperature	-65 to +175°C
Thermal Resistance	250°C/W junction to lead at 3/8" lead length from body
Steady State Power	0.5 Watts at $T_L \leq 50°C$
Forward Voltage @ 200mA	1.1 Volts
Solder Temperatures:	260°C for 10 s (max)

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Part Number (Note 1)	Normal Zener Voltage V_Z @ I_{ZT} (Note 2)	Zener Test Current I_{ZT}	Maximum Zener Impedance Z_{ZT} @ I_{ZT} (Note 3)	Maximum Reverse Leakage Current V_R = 1 Volt		Maximum Zener Current I_{ZM} (Note 4)	Typical Temperature Coefficient Of Zener Voltage
	VOLTS	mA	OHMS	µA @ 25°C	µA @ 125°C	mA	%/°C
1N4370	2.4	20	30	100	200	150	-.085
1N4371	2.7	20	30	75	150	135	-.080
1N4372	3.0	20	29	50	100	120	-.075
1N746	3.3	20	28	10	30	110	-.066
1N747	3.6	20	24	10	30	100	-.058
1N748	3.9	20	23	10	30	95	-.046
1N749	4.3	20	22	2	30	85	-.033
1N750	4.7	20	19	2	30	75	-.015
1N751	5.1	20	17	1	20	70	±.010
1N752	5.6	20	11	1	20	65	+.030
1N753	6.2	20	7	0.1	20	60	+.049
1N754	6.8	20	5	0.1	20	55	+.053
1N755	7.5	20	6	0.1	20	50	+.057
1N756	8.2	20	8	0.1	20	45	+.060
1N757	9.1	20	10	0.1	20	40	+.061
1N758	10	20	17	0.1	20	35	+.062
1N759	12	20	30	0.1	20	30	+.062

Notes:
1. Suffix letter A denotes ±5% tolerance, suffix C denotes ±2% tolerance, & suffix D denotes ±1% tolerance.
2. Voltage measurements to be performed 20 seconds after application of dc current.
3. Zener impedance derived by superimposing on I_{ZT}, a 60cps, rms ac current equal to 10% I_{ZT} (2mA ac)
4. Allowance has been made for the increase in V_Z due to Z_Z and for the increase in junction temperature as the unit approaches thermal equilibrium at the power dissipation of 400mW.

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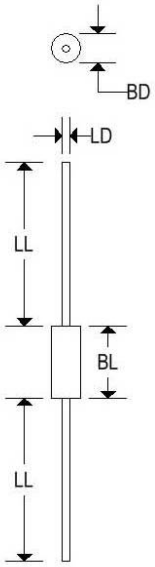
MECHANICAL CHARACTERISTICS

Case:	DO-35 Glass
Marking:	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

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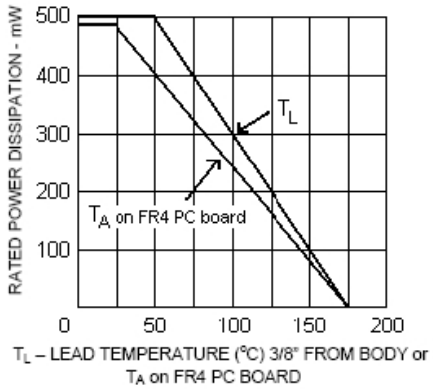

FIGURE 1
POWER DERATING CURVE

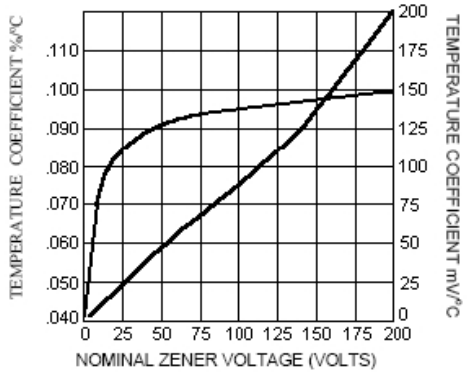

FIGURE 2
ZENER VOLTAGE TEMPERATURE COEFFICIENT vs. ZENER VOLTAGE

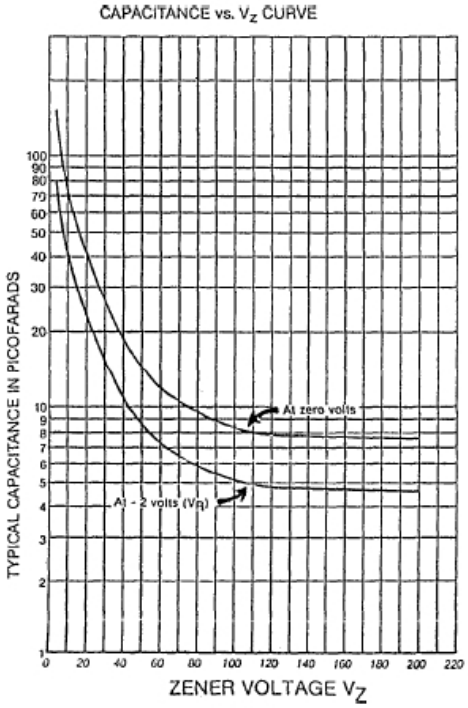

FIGURE 3
CAPACITANCE vs. ZENER VOLTAGE (TYPICAL)