

DIGITRON SEMICONDUCTORS

**1N746 – 1N759A
1N4370-1N4372A**

SILICON PLANAR POWER ZENER DIODES

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 $T_L \leq 50^\circ\text{C}$
Forward Voltage @ 200mA	1.1 Volts
Solder Temperatures:	260°C for 10 s (max)

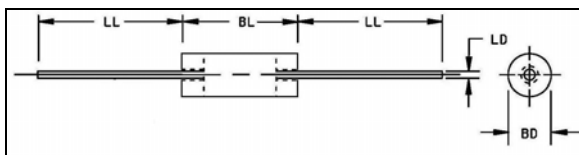
ELECTRICAL CHARACTERISTICS @ 25°C unless otherwise specified

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 $V_R = 1 \text{ Volt}$		Maximum Zener Current I_{ZM} (Note 4)	Typical Temperature Coefficient Of Zener Voltage
	VOLTS	mA	OHMS	$\mu\text{A} @ 25^\circ\text{C}$	$\mu\text{A} @ 125^\circ\text{C}$	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 $\pm 5\%$ tolerance, suffix C denotes $\pm 2\%$ tolerance, & suffix D denotes $\pm 1\%$ 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.

MECHANICAL CHARACTERISTICS

Case:	DO-35 Glass
Marking:	Alpha Numeric
Polarity:	Cathode Band

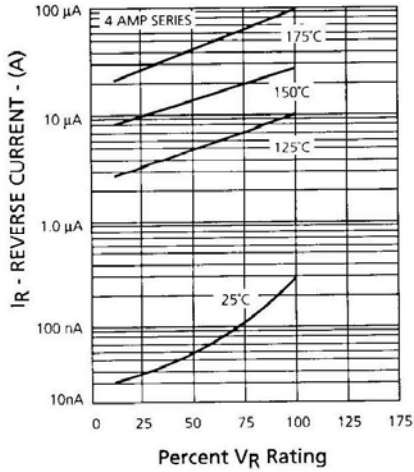


	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.055	0.090	1.400	2.290
BL	0.120	0.200	3.050	5.080
LD	0.018	0.022	0.460	0.559
LL	1.000	1.500	25.400	38.100

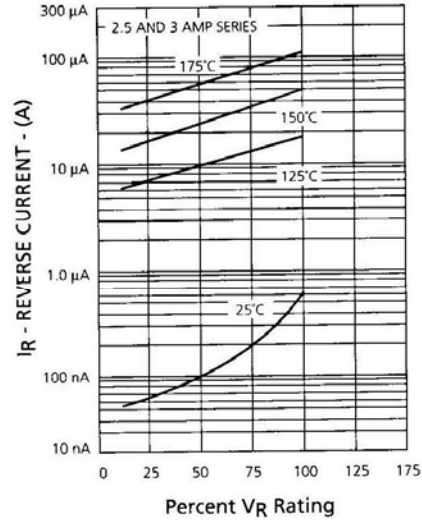
DIGITRON SEMICONDUCTORS

1N746 - 1N759A
1N4370-1N4372A

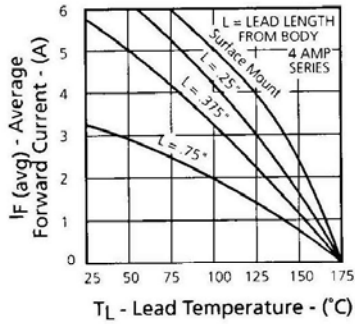
SILICON PLANAR POWER ZENER DIODES



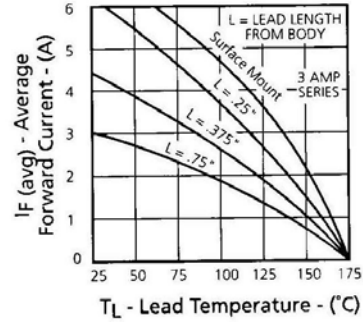
Typical Reverse Current vs Applied Reverse Voltage



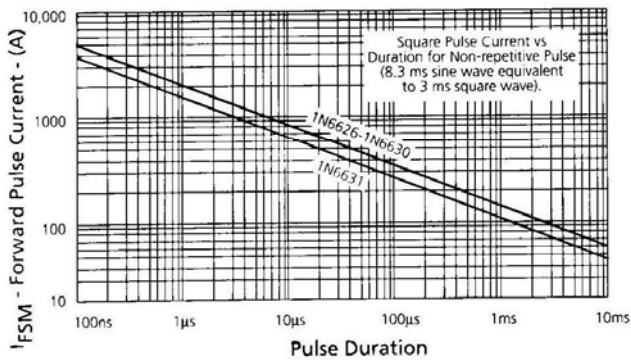
Typical Reverse Current vs Applied Reverse Voltage



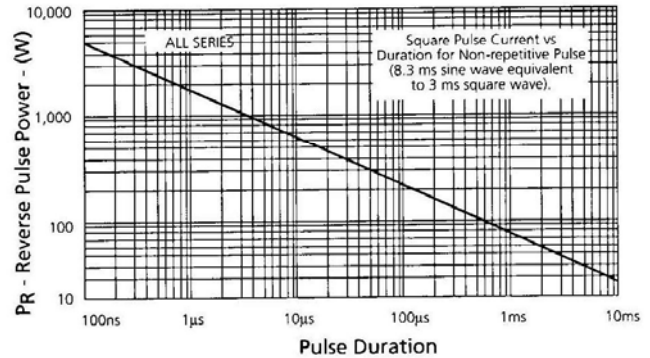
Average Forward Current vs Lead Temperature (50% Duty Cycle, Square Wave)



Average Forward Current vs Lead Temperature (50% Duty Cycle, Square Wave)



Forward Pulse Current vs Pulse Duration

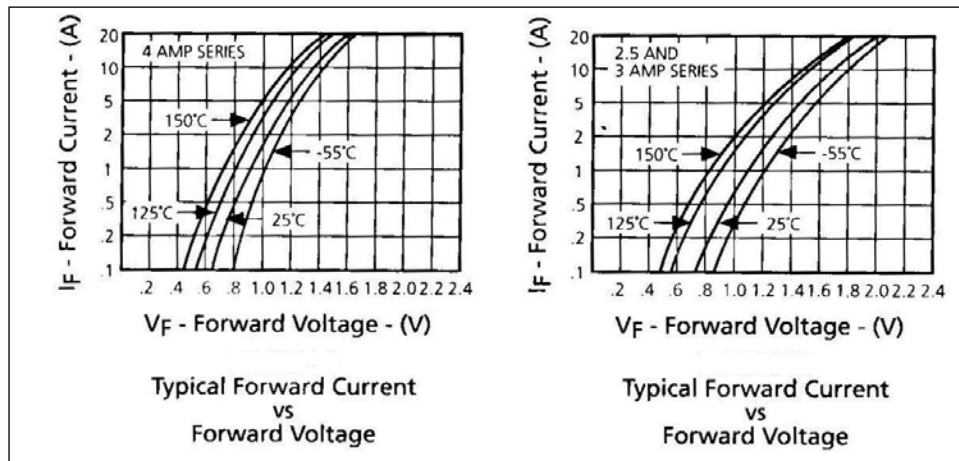


Reverse Pulse Power vs Pulse Duration

DIGITRON SEMICONDUCTORS

1N746 – 1N759A
1N4370-1N4372A

SILICON PLANAR POWER ZENER DIODES



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