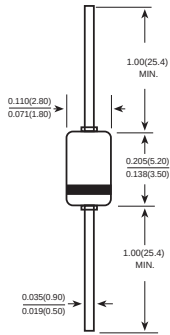


1N4728A THRU 1N4764A

Zener Voltage: 3.3-100V Peak Pulse Power:1000mW

DO-41(GLASS)



Dimensions in inches and (millimeters)

FEATURE

- ◆ Low Reverse Leakage
- ◆ Low Zener Impedance
- ◆ Power Dissipation of 1000mW
- ◆ High Stability and High Reliability

MECHANICAL DATA

Case: DO-41 Glass Case

Polarity: Color band denotes cathode end

Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Power Dissipation	Pd	1000 ¹⁾	mW
Operating junction temperature	Tj	200	°C
Storage temperature range	Ts	-55-+200	°C

1) Valid provided that leads are kept at ambient temperature at a distance of 8mm from case

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

TYPE	Zener Voltage				Reverse Current		Dynamic Resistance	
	Vz(V)			Test Condition	Ir(uA)	Test Condition	rd(Ω)	Test Condition
	Nom.	Min	Max					
1N4728A	3.3	3.23	3.36	Iz(mA)	Max.	Vr(V)	Max.	Iz(mA)
1N4729A	3.6	3.53	3.67	76.0	100	1.0	10	76.0
1N4730A	3.9	3.82	3.98	69.0	100	1.0	10	69.0
1N4731A	4.3	4.21	4.39	64.0	50	1.0	9	64.0
1N4731A	4.3	4.21	4.39	58.0	10	1.0	9	58.0
1N4732A	4.7	4.61	4.79	53.0	10	1.0	8	53.0
1N4733A	5.1	5.00	5.20	49.0	10	1.0	7	49.0
1N4734A	5.6	5.49	5.71	45.0	10	2.0	5	45.0
1N4735A	6.2	6.08	6.32	41.0	10	3.0	2	41.0
1N4736A	6.8	6.66	6.94	37.0	10	4.0	3.5	37.0
1N4737A	7.5	7.35	7.65	34.0	10	5.0	4	34.0
1N4738A	8.2	8.04	8.36	31.0	10	6.0	4.5	31.0
1N4739A	9.1	8.92	9.28	28.0	10	7.0	5	28.0
1N4740A	10	9.80	10.20	25.0	10	7.6	7	25.0
1N4741A	11	10.78	11.22	23.0	5	8.4	8	23.0
1N4742A	12	11.76	12.24	21.0	5	9.1	9	21.0
1N4743A	13	12.74	13.26	19.0	5	9.9	10	19.0
1N4744A	15	14.70	15.30	17.0	5	11.4	14	17.0

ELECTRICAL CHARACTERISTICS (at T_A=25°C unless otherwise noted)

TYPE*	Zener Voltage				Reverse Current		Dynamic Resistance	
	V _Z (V)			Test Condition	I _r (μ A)	Test Condition	r _d (Ω)	Test Condition
	Nom.	Min	Max	I _Z (mA)	Max.	V _r (V)	Max.	I _Z (mA)
1N4745A	16	15.68	16.32	15.5	5	12.2	16	15.5
1N4746A	18	17.64	18.36	14.0	5	13.7	20	14.0
1N4747A	20	19.60	20.40	12.5	5	15.2	22	12.5
1N4748A	22	21.56	22.44	11.5	5	16.7	23	11.5
1N4749A	24	23.52	24.48	10.5	5	18.2	25	10.5
1N4750A	27	26.46	27.54	9.5	5	20.6	35	9.5
1N4751A	30	29.40	30.60	8.5	5	22.8	40	8.5
1N4752A	33	32.34	33.66	7.5	5	25.1	45	7.5
1N4753A	36	35.28	36.72	7.0	5	27.4	50	7.0
1N4754A	39	38.22	39.78	6.5	5	29.7	60	6.5
1N4755A	43	42.14	43.86	6.0	5	32.7	70	6.0
1N4756A	47	46.06	47.94	5.5	5	35.8	80	5.5
1N4757A	51	49.98	52.02	5.0	5	38.8	95	5.0
1N4758A	56	54.88	57.12	4.5	5	42.6	110	4.5
1N4759A	62	60.76	63.24	4.0	5	47.1	125	4.0
1N4760A	68	66.64	69.36	3.7	5	51.7	150	3.7
1N4761A	75	73.50	76.50	3.3	5	56.0	175	3.3
1N4762A	82	80.36	83.64	3.0	5	62.2	200	3.0
1N4763A	91	89.18	92.82	2.8	5	69.2	250	2.8
1N4764A	100	98.00	102	2.5	5	76.0	350	2.5

Notes:

1) Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

2) Measured under thermal equilibrium and DC test conditions.

3) The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current, I_{ZT}, per JEDEC registration; however, actual device capability is as described in Figure 5 of the General Data-DO-41 Glass.

4) Tested with pulses t_p = 20 ms.

5) V_F(Max)=1.20V@ I_F=200mA

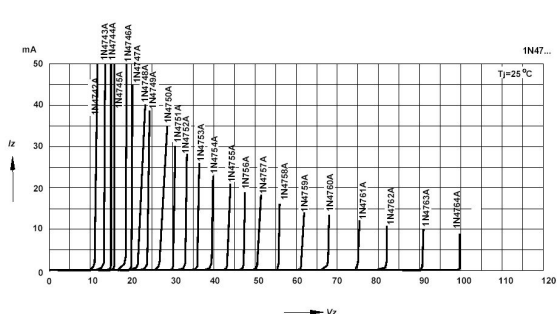
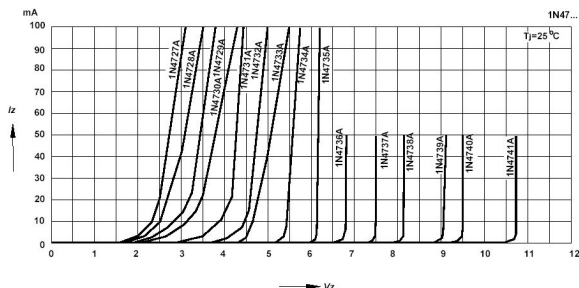
*Measure under thermal equilibrium and DC current test conditions(T_A=25°C)

Tolerance on nominal V_Z value: $\pm 5\%$.

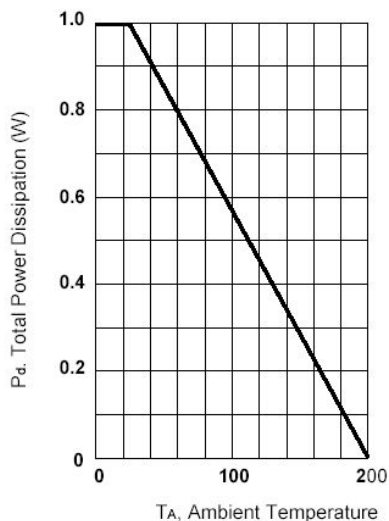
Tight tolerances on preferred voltages: 1N47...C: $\pm 2\%$;
 1N47...D: $\pm 1\%$.

RATINGS AND CHARACTERISTIC CURVES 1N4728A THRU 1N4764A

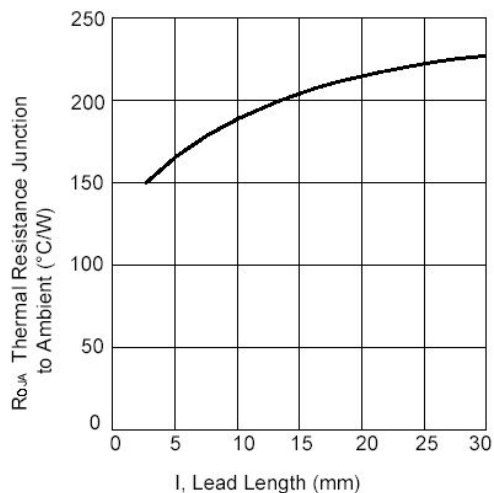
Breakdown characteristics $T_J = \text{constant}$ (pulsed)



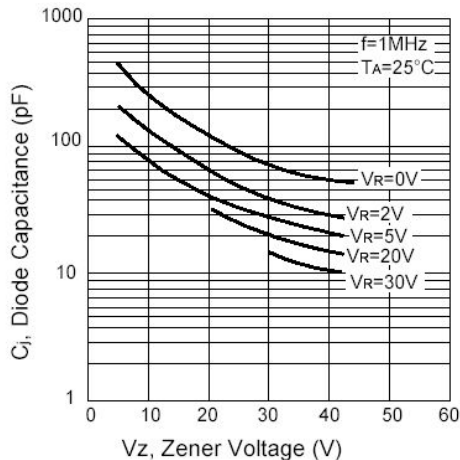
Power Dissipation vs Ambient Temperature



Typical Thermal Resistance vs. Lead Length



Junction Capacitance vs Zener Voltage



Typical Zener Impedance vs. Zener Voltage

