



1N4728A THRU 1N4764A

Zener Diode

Features

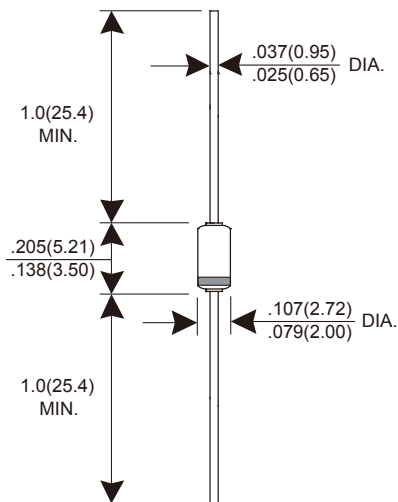
- ★ Low leakage
- ★ Built-in strain relief
- ★ Low inductance
- ★ Built-in strain relief
- ★ High peak reverse power dissipation
- ★ Lead (Pb)-free component
- ★ For use in stabilizing and clipping circuits with high power rating
- ★ Zener voltage tolerance is $\pm 5\%$

Mechanical Data

- ★ Case: Molded glass, DO-41G
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202, method 208
- ★ Polarity: Color band denotes cathode end
- ★ Mounting position: Any

Zener Voltage 3.3 to 100 V
Power Dissipation 1.0 Watts

DO-41G



Dimensions in inches and (millimeters)

MAXIMUM RATINGS

$T_A = 25^\circ\text{C}$ unless otherwise noted

PARAMETER	SYMBOL	VALUE	UNIT
DC power dissipation at $T_L = 50^\circ\text{C}$ (Note1)	P_D	1	W
Maximum forward voltage at $I_F = 200\text{mA}$	V_F	1.2	V
Maximum thermal resistance junction to ambient air (Note2)	$R_{\theta JA}$	170	$^\circ\text{C/W}$
Junction temperature range	T_J	-65 to +175	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +175	$^\circ\text{C}$

NOTES : (1) T_L = Lead temperature at 3/8"(9.5mm) from body.
 (2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.

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Electrical Characteristics($T_A=25^\circ\text{C}$ unless otherwise noted)

Part Number	Zener Voltage $V_Z@I_{ZT}$			Maximum Zener Impedance			Maximum Reverse Leakage Current $I_R@V_R$		Maximum DC Zener Current	Maximum Surge Current
	Min (V)	Max (V)	I_{ZT} (mA)	$Z_{ZT}@I_{ZT}$ (Ω)	$Z_{ZK}@I_{ZK}$ (Ω)	I_{ZK} (mA)	I_R (μA)	V_R (V)	I_{ZM} (mA)	I_{RM} (mApk)
1N4728A	3.14	3.47	76	10	400	1	100	1	276	1380
1N4729A	3.42	3.78	69	10	400	1	100	1	252	1260
1N4730A	3.71	4.10	64	9	400	1	50	1	234	1190
1N4731A	7.12	4.52	58	9	400	1	10	1	217	1070
1N4732A	4.47	4.94	53	8	500	1	10	1	193	970
1N4733A	4.85	5.36	49	7	550	1	10	1	178	890
1N4734A	5.32	5.88	45	5	600	1	10	2	162	810
1N4735A	5.89	6.51	41	2	700	1	10	3	146	730
1N4736A	6.46	7.14	37	3.5	700	1	10	4	133	660
1N4737A	7.13	7.88	34	4	700	0.5	10	5	121	605
1N4738A	7.79	8.61	31	4.5	700	0.5	10	6	110	550
1N4739A	8.65	9.56	28	5	700	0.5	10	7	100	500
1N4740A	9.50	10.50	25	7	700	0.25	10	7.6	91	454
1N4741A	10.45	11.55	23	8	700	0.25	5	8.4	83	414
1N4742A	11.40	12.60	21	9	700	0.25	5	9.1	76	380
1N4743A	12.35	13.65	19	10	700	0.25	5	9.9	69	344
1N4744A	14.25	15.75	17	14	700	0.25	5	11.4	61	304
1N4745A	15.20	16.80	15.5	16	700	0.25	5	12.2	57	285
1N4746A	17.10	18.90	14	20	750	0.25	5	13.7	50	250
1N4747A	19.00	21.00	12.5	22	750	0.25	5	15.2	45	225
1N4748A	20.90	23.10	11.5	23	750	0.25	5	16.7	41	205
1N4749A	22.80	25.20	10.5	25	750	0.25	5	18.2	38	190
1N4750A	25.65	28.35	9.5	35	750	0.25	5	20.6	34	170
1N4751A	28.50	31.50	8.5	40	1000	0.25	5	22.8	30	150
1N4752A	31.35	34.65	7.5	45	1000	0.25	5	25.1	27	135
1N4753A	34.20	37.80	7	50	1000	0.25	5	27.4	25	125
1N4754A	37.05	40.95	6.5	60	1000	0.25	5	29.7	23	115
1N4755A	40.85	45.15	6	70	1500	0.25	5	32.7	22	110
1N4756A	44.65	49.35	5.5	80	1500	0.25	5	35.8	19	95
1N4757A	48.45	53.55	5	95	1500	0.25	5	38.8	18	90
1N4758A	53.20	58.80	4.5	110	2000	0.25	5	42.6	16	80
1N4759A	58.90	65.10	4	125	2000	0.25	5	47.1	14	70
1N4760A	64.60	71.40	3.7	150	2000	0.25	5	51.7	13	65
1N4761A	71.25	78.75	3.3	175	2000	0.25	5	56	12	60
1N4762A	77.90	86.10	3	200	3000	0.25	5	62.2	11	55
1N4763A	86.45	95.55	2.8	250	3000	0.25	5	69.2	10	50
1N4764A	95.00	105.0	2.5	350	3000	0.25	5	76	9	45

The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC method

RATINGS AND CHARACTERISTICS CURVES 1N4728A THRU 1N4764A

Fig.1 - Power Derating Curve

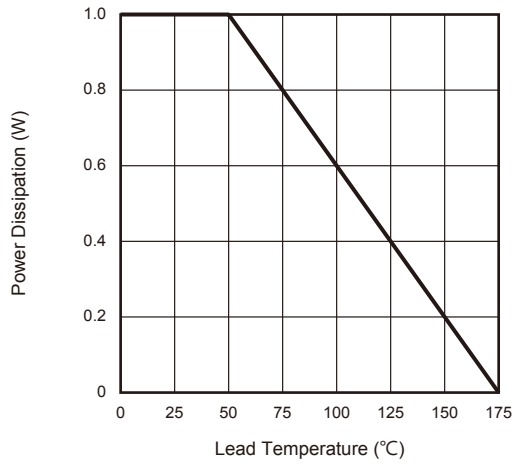


Fig.2 - Temperature Coefficients v.s. Zener Voltage

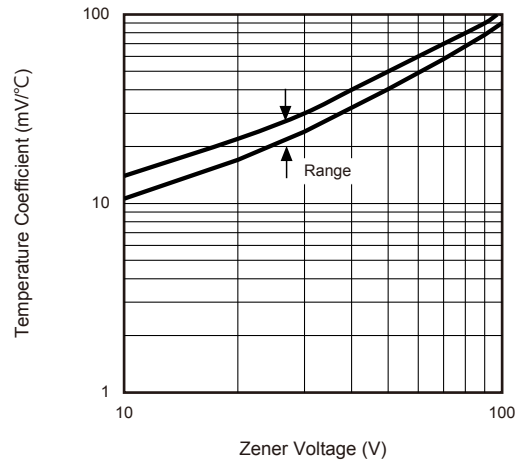


Fig.3 - Typical Thermal Resistance v.s. Lead Length

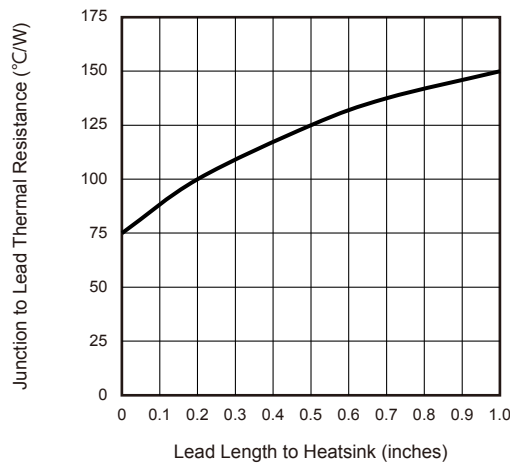


Fig.4 - Maximum Surge Power

