

1N4728A THRU 1N4776A DO-41 SERIES

PLASTIC-ENCAPSULATE ZENER DIODE



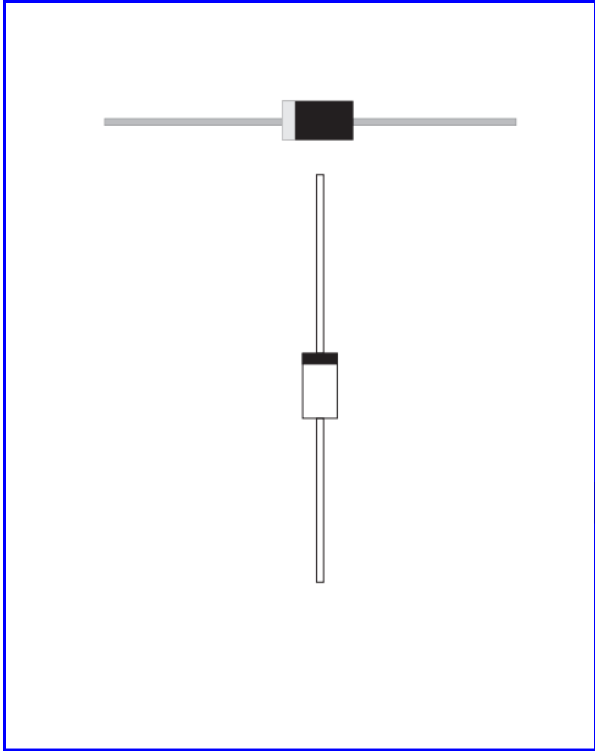
VOLTAGE	3.3~350 Volts	POWER	1.0 W	DO-41
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**FEATURES**

- Glass passivated chip
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Low reverse leakage
- For use in stabilizing and clipping with high power rating
- RoHS compliant

**MECHANICAL DATA**

- **Case:** DO214AC Molded plastic
- **Lead:** Solderable per MIL-STD-750, method 2026
- **Epoxy:** UL 94V-0 rate flame retardant
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any



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

Parameter	Symbol	Value	Unit
DC Power dissipation at TL = 75 °C(1)	$P_d$	1.0	W
Maximum forward voltage at $I_f=200\text{mA}$	$V_f$	1.0	V
Junction temperature range	$T_J, T_{STG}$	-55 to +175	°C
Storage temperature range	$T_J, T_{STG}$	-55 to +175	°C

**Notes:** (1) TL=Lead temperature at 3/8" (9.5mm)from body



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

Device	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Test Current IZTC
	Vz@Izt			Izt mA	Zzt @Izt Ω	Zzk @Izk Ω	Izk mA	IR uA	VR V	
	Nom(V)	Min(V)	Max(V)							
1N4728A	3.3	3.14	3.47	76.0	10.0	400.0	1.0	100.0	1.0	274.0
1N4729A	3.6	3.42	3.78	69.0	10.0	400.0	1.0	100.0	1.0	251.0
1N4730A	3.9	3.71	4.10	64.0	9.0	400.0	1.0	50.0	1.0	232.0
1N4731A	4.3	4.09	4.52	58.0	9.0	400.0	1.0	10.0	1.0	210.0
1N4732A	4.7	4.47	4.94	53.0	8.0	500.0	1.0	10.0	1.0	192.0
1N4733A	5.1	4.85	5.36	49.0	7.0	550.0	1.0	10.0	1.0	177.0
1N4734A	5.6	5.32	5.88	45.0	5.0	600.0	1.0	10.0	2.0	161.0
1N4735A	6.2	5.89	6.51	41.0	2.0	700.0	1.0	10.0	3.0	146.0
1N4736A	6.8	6.46	7.14	37.0	3.5	700.0	1.0	10.0	4.0	133.0
1N4737A	7.5	7.13	7.88	34.0	4.0	700.0	0.5	10.0	5.0	121.0
1N4738A	8.2	7.79	8.61	31.0	4.5	700.0	0.5	10.0	6.0	110.0
1N4739A	9.1	8.65	9.56	28.0	5.0	700.0	0.5	10.0	7.0	100.0
1N4740A	10.0	9.50	10.50	25.0	7.0	700.0	0.25	10.0	7.6	91.0
1N4741A	11.0	10.45	11.55	23.0	8.0	700.0	0.25	0.5	8.4	83.0
1N4742A	12.0	11.40	12.60	21.0	9.0	700.0	0.25	0.5	9.1	76.0
1N4743A	13.0	12.35	13.65	19.0	10.0	700.0	0.25	0.5	9.9	69.0
1N4744A	15.0	14.25	15.75	17.0	14.0	700.0	0.25	0.5	11.4	61.0
1N4745A	16.0	15.20	16.80	15.5	16.0	700.0	0.25	0.5	12.2	57.0
1N4746A	18.0	17.10	18.90	14.0	20.0	750.0	0.25	0.5	13.7	50.0
1N4747A	20.0	19.00	21.00	12.5	22.0	750.0	0.25	0.5	15.2	45.0
1N4748A	22.0	20.90	23.10	11.5	23.0	750.0	0.25	0.5	16.7	41.0
1N4749A	24.0	22.80	25.20	10.5	25.0	750.0	0.25	0.5	18.2	38.0
1N4750A	27.0	25.65	28.35	9.5	35.0	750.0	0.25	0.5	20.6	34.0
1N4751A	30.0	28.50	31.50	8.5	40.0	1000.0	0.25	0.5	22.8	30.0
1N4752A	33.0	31.35	34.65	7.5	45.0	1000.0	0.25	0.5	25.1	27.0
1N4753A	36.0	34.20	37.80	7.0	50.0	1000.0	0.25	0.5	27.4	25.0
1N4754A	39.0	37.05	40.95	6.5	60.0	1000.0	0.25	0.5	29.7	23.0
1N4755A	43.0	40.85	45.15	6.0	70.0	1500.0	0.25	0.5	32.7	22.0
1N4756A	47.0	44.65	49.35	5.5	80.0	1500.0	0.25	0.5	35.8	19.0
1N4757A	51.0	48.45	53.55	5.0	95.0	1500.0	0.25	0.5	38.8	18.0
1N4758A	56.0	53.20	58.80	4.5	110.0	2000.0	0.25	0.5	42.6	16.0
1N4759A	62.0	58.90	65.10	4.0	125.0	2000.0	0.25	0.5	47.1	14.0
1N4760A	68.0	64.60	71.40	3.7	150.0	2000.0	0.25	0.5	51.7	13.0
1N4761A	75.0	71.25	78.75	3.3	175.0	2000.0	0.25	0.5	56.0	12.0
1N4762A	82.0	77.90	86.10	3.0	200.0	3000.0	0.25	0.5	62.2	11.0
1N4763A	91.0	86.45	95.55	2.8	250.0	3000.0	0.25	0.5	69.2	10.0
1N4764A	100.0	95.00	105.00	2.5	350.0	3000.0	0.25	0.5	76.0	9.0
1N4765A	110.0	104.50	115.50	2.3	450.0	4000.0	0.25	0.5	83.6	8.6
1N4766A	120.0	114.00	126.00	2.0	550.0	4500.0	0.25	0.5	91.2	7.8
1N4767A	130.0	123.50	136.50	1.9	700.0	5000.0	0.25	0.5	98.8	7.0
1N4768A	150.0	142.50	157.50	1.7	1000.0	5000.0	0.25	0.5	114.0	6.4
1N4769A	160.0	152.00	168.00	1.6	1100.0	5000.0	0.25	0.5	121.6	5.8
1N4770A	180.0	171.00	189.00	1.4	1200.0	7000.0	0.25	0.5	136.8	5.2
1N4771A	200.0	190.00	210.00	1.2	1900.0	8000.0	0.25	0.5	152.0	4.7
1N4772A	220.0	209.00	231.00	1.0	1600.0	9000.0	0.25	0.5	167.2	4.0
1N4773A	250.0	237.50	262.50	0.9	1800.0	9000.0	0.25	0.5	190.0	3.6
1N4774A	300.0	285.00	315.00	0.8	2000.0	9500.0	0.25	0.5	228.0	3.0
1N4775A	330.0	313.50	346.50	0.75	2100.0	9500.0	0.25	0.5	245.0	2.7
1N4776A	350.0	332.50	367.50	0.70	2300.0	9500.0	0.25	0.5	275.0	2.5

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Ratings and Characteristics Curves (TA=25°C unless otherwise noted)

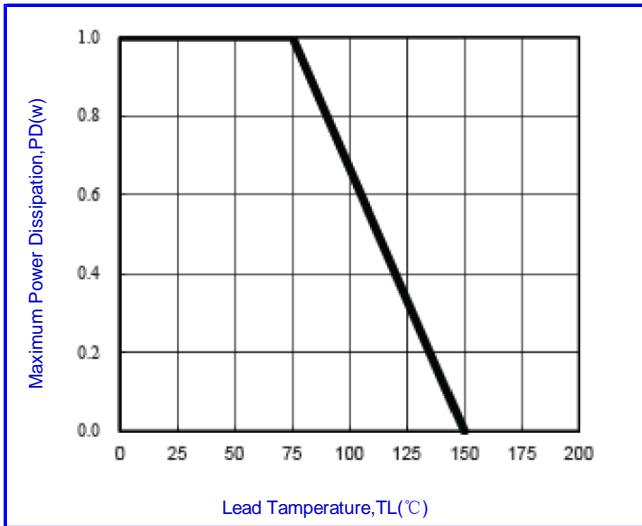


Fig.1-Power Temperature Derating Curve

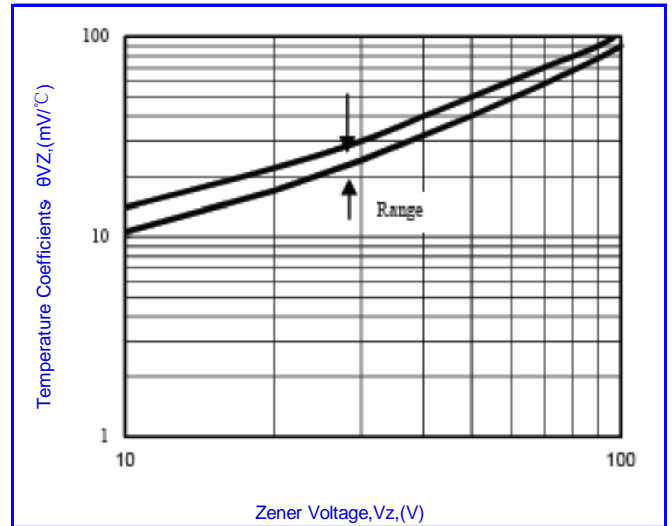


Fig.2- Temperature Coefficients v.s. Zener Voltage

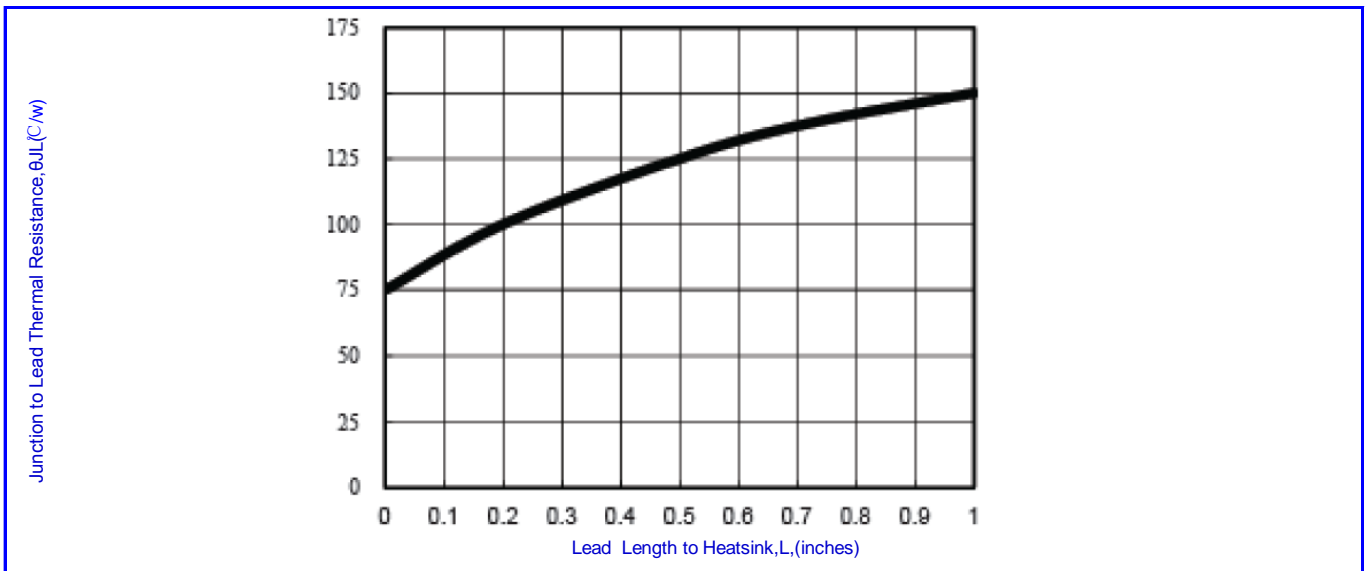


Fig.3- Typical Thermal Resistance V.S. Lead Length

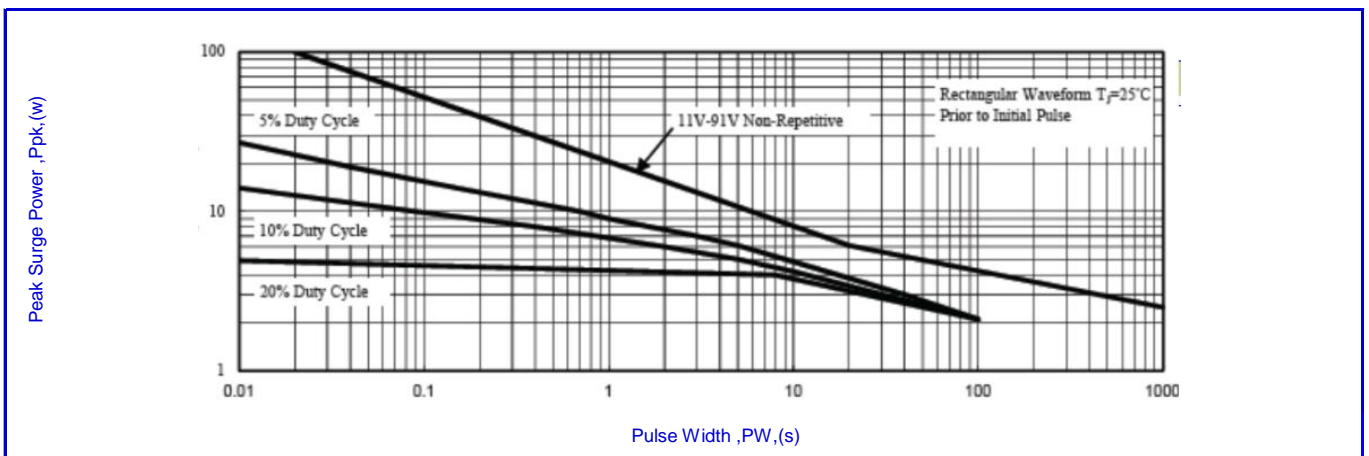


Fig.4- Maximum Surge Power