



1N4728A THRU 1N4764A

VOLTAGE RANGE 3.3 to 100 Volts
CURRENT 1.0W



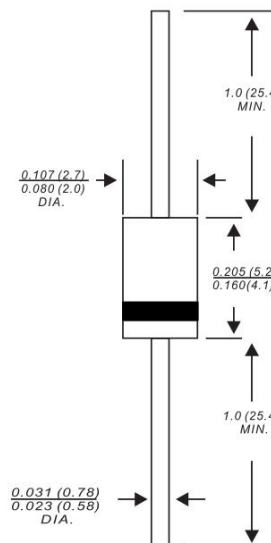
Features

- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High reliability
- High temperature soldering guaranteed
260°C/10 seconds, 0.375"(9.5mm) lead length at 5 lbs(2.3kg) tension

Mechanical Data

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.012ounce, 0.33 grams

DO-41



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

- Absolute Maximum Ratings at 25°C

TYPE NUMBER	SYMBOLS	Value	UNITS
Power Dissipation at T _c =75°C	P _{tot}	1.0	W
Forward Voltage at I _F = 200 mA	V _F	1.2	Volts
Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

- Characteristics at Ta = 25°C

Type	Device Marking	Nominal Zener Voltage			Maximum Zener Impedance				Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Zener Current
		VZ @ IZT (V)	VZ @ IZT		ZZT @ IZT (Ω)	IZT (mA)	ZZK @ IZK (Ω)	IZK (mA)	IR @ VR		IZM (mA)	IRM ^② (mAPK)
			min(V)	max(V)					(uA)	(V)		
1N4727A	1N4727A	3.0	2.85	3.15	10	83.0	400	1.0	100	1.0	275	1375
1N4728A	1N4728A	3.3	3.13	3.47	10	76.0	400	1.0	100	1.0	276	1380
1N4729A	1N4729A	3.6	3.42	3.78	10	69.0	400	1.0	100	1.0	252	1260
1N4730A	1N4730A	3.9	3.70	4.10	9.0	64.0	400	1.0	100	1.0	234	1190
1N4731A	1N4731A	4.3	4.08	4.52	9.0	58.0	400	1.0	50	1.0	217	1070
1N4732A	1N4732A	4.7	4.46	4.94	8.0	53.0	500	1.0	10	1.0	193	970
1N4733A	1N4733A	5.1	4.84	5.36	7.0	49.0	550	1.0	10	1.0	178	890
1N4734A	1N4734A	5.6	5.32	5.88	5.0	45.0	600	1.0	10	2.0	162	810
1N4735A	1N4735A	6.2	5.89	6.51	2.0	41.0	700	1.0	10	3.0	146	730
1N4736A	1N4736A	6.8	6.46	7.14	3.5	37.0	700	1.0	10	4.0	133	660



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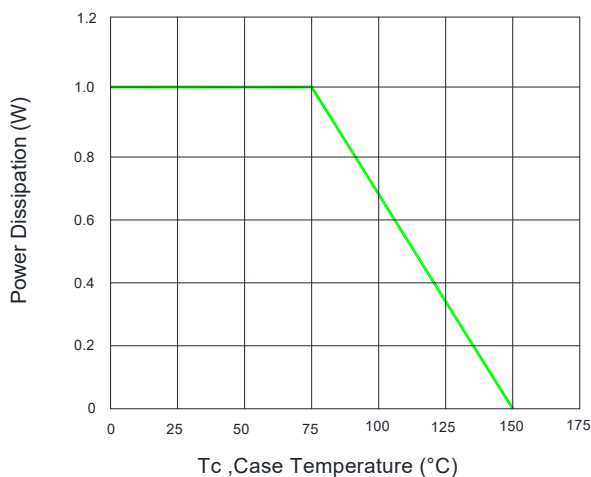
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1N4737A	1N4737A	7.5	7.12	7.88	4.0	34.0	700	0.50	10	5.0	121	605
1N4738A	1N4738A	8.2	7.79	8.61	4.5	31.0	700	0.50	10	6.0	110	550
1N4739A	1N4739A	9.1	8.64	9.56	5.0	28.0	700	0.50	10	7.0	100	500
1N4740A	1N4740A	10	9.50	10.50	7.0	25.0	700	0.25	10	7.6	91	454
1N4741A	1N4741A	11	10.45	11.55	8.0	23.0	700	0.25	5.0	8.4	83	414
1N4742A	1N4742A	12	11.40	12.60	9.0	21.0	700	0.25	5.0	9.1	76	380
1N4743A	1N4743A	13	12.35	13.65	10	19.0	700	0.25	5.0	9.9	69	344
1N4744A	1N4744A	15	14.25	15.75	14	17.0	700	0.25	5.0	11.4	61	305
1N4745A	1N4745A	16	15.20	16.80	16	15.5	700	0.25	5.0	12.2	57	285
1N4746A	1N4746A	18	17.10	18.90	20	14.0	750	0.25	5.0	13.7	50	250
1N4747A	1N4747A	20	19.00	21.00	22	12.5	750	0.25	5.0	15.2	45	225
1N4748A	1N4748A	22	20.90	23.10	23	11.5	750	0.25	5.0	16.7	41	205
1N4749A	1N4749A	24	22.80	25.20	25	10.5	750	0.25	5.0	18.2	38	190
1N4750A	1N4750A	27	25.65	28.35	35	9.5	750	0.25	5.0	20.6	34	170
1N4751A	1N4751A	30	28.50	31.50	40	8.5	1000	0.25	5.0	22.8	30	150
1N4752A	1N4752A	33	31.35	34.65	45	7.5	1000	0.25	5.0	25.1	27	135
1N4753A	1N4753A	36	34.20	37.80	50	7.0	1000	0.25	5.0	27.4	25	125
1N4754A	1N4754A	39	37.05	40.95	60	6.5	1000	0.25	5.0	29.7	23	115
1N4755A	1N4755A	43	40.85	45.15	70	6.0	1500	0.25	5.0	32.7	22	110
1N4756A	1N4756A	47	44.65	49.35	80	5.5	1500	0.25	5.0	35.8	19	95
1N4757A	1N4757A	51	48.45	53.55	95	5.0	1500	0.25	5.0	38.8	18	90
1N4758A	1N4758A	56	53.20	58.80	110	4.5	2000	0.25	5.0	42.6	16	80
1N4759A	1N4759A	62	58.90	65.10	125	4.0	2000	0.25	5.0	47.1	14	70
1N4760A	1N4760A	68	64.60	71.40	150	3.7	2000	0.25	5.0	51.7	13	65
1N4761A	1N4761A	75	71.25	78.75	175	3.3	2000	0.25	5.0	56.0	12	60
1N4762A	1N4762A	82	77.90	86.10	200	3.0	3000	0.25	5.0	62.2	11	55
1N4763A	1N4763A	91	86.45	95.55	250	2.8	3000	0.25	5.0	69.2	10	50
1N4764A	1N4764A	100	95.00	105.00	350	2.5	3000	0.25	5.0	76.0	9.0	45

(1) VZT is tested with pulses (20 ms)

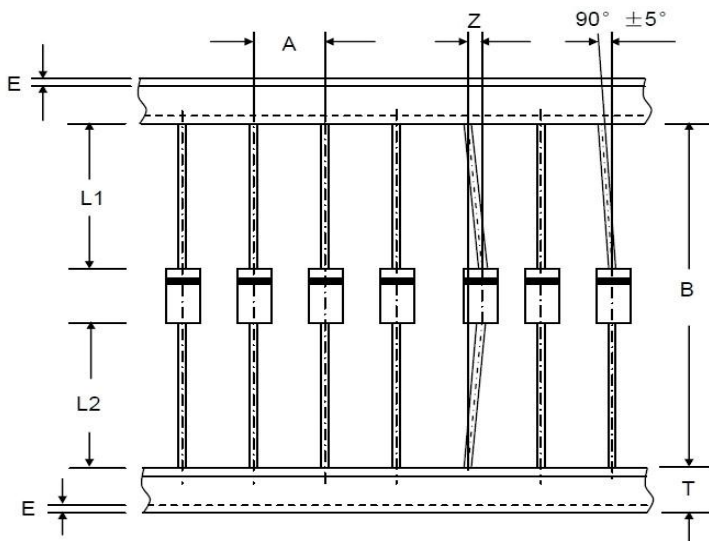
Ratings and Characteristic Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

FIG. 1 Maximum Continuous Power Derating





Axial Lead Taping Specifications for Rectifiers

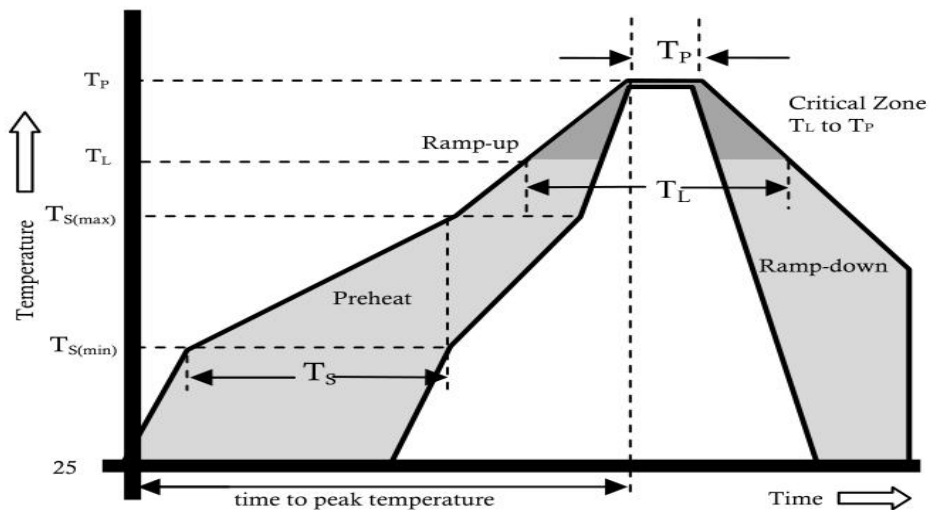


Component Outline	Component Pitch A	Inner Tape Pitch B		Cumulative Tolerance
	±0.5mm	+0.5mm	-0.4mm	
DO-204AL(DO-41)	5.0mm	52.4mm	26.0mm	2.0mm/20pitch

Item	Symbol	Specifications(mm)	Specifications(inch)
Component alignment	Z	1.2 max	0.048 max
Tape width	T	6.0±0.4	0.236±0.016
Exposed adhesive	E	0.8 max	0.032 max
Body eccentricity	IL1-L2I	1.0 max	0.040 max



Reflow Profile



Reflow Condition		Pb-Free Assembly
Pre Heat	Temperature Min.	+150°C
	Temperature Max.	+200°C
	Time(Min to Max)	60-180 secs.
Average ramp up rate(Liquidus Temp(T_L) to peak)		3°C/sec. Max.
$T_S(max)$ to T_L - Ramp-up Rate		3°C/sec. Max.
Reflow	Temperature (T_L)(Liquidus)	+217°C
	Temperature (T_L)	60-150 secs.
Peak Temp (T_P)		+(260+0/-5)°C
Time within 5°C of actual Peak Temp (T_P)		25 secs.
Ramp-down Rate		6°C/sec. Max.
Time 25°C to peak Temp (T_P)		8 min. Max.
Do not exceed		+260°C



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Disclaimer

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