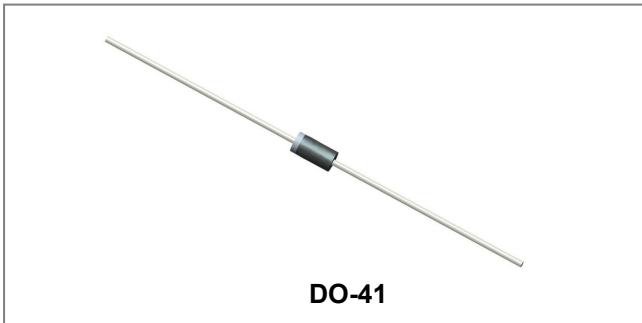




**THE DATASHEET OF  
1N4733ATA**



**1N4728A THRU 1N4764A Zener Diode**  
Zener Voltage:3.3-100V Peak Pulse Power:1000mW



**Features**

- Low zener impedance
- Low reverse leakage
- Power dissipation of 1000mW
- High stability and high reliability
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

**Circuit Diagram**



**Mechanical Data**

- Case: DO-41 Glass Case
- Polarity: Color band denotes cathode end
- Mounting Position: Any

**Maximum Ratings@T<sub>A</sub>=25°C unless otherwise specified**

Parameter	Symbol	Value	Units
Power Dissipation (Note 1)	P <sub>D</sub>	1000	mW
Forward Voltage @ I <sub>F</sub> = 200mA	V <sub>F</sub>	1.2	V
Typical Thermal resistance junction to Ambient Air (Note 1)	R <sub>θJA</sub>	170	°C/W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to 200	°C

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

**Ordering Information**

Device	Package	Shipping
1N4728A-1N4764A	DO-41 (Pb-Free)	5000pcs / tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**



1N4728A = Part Name

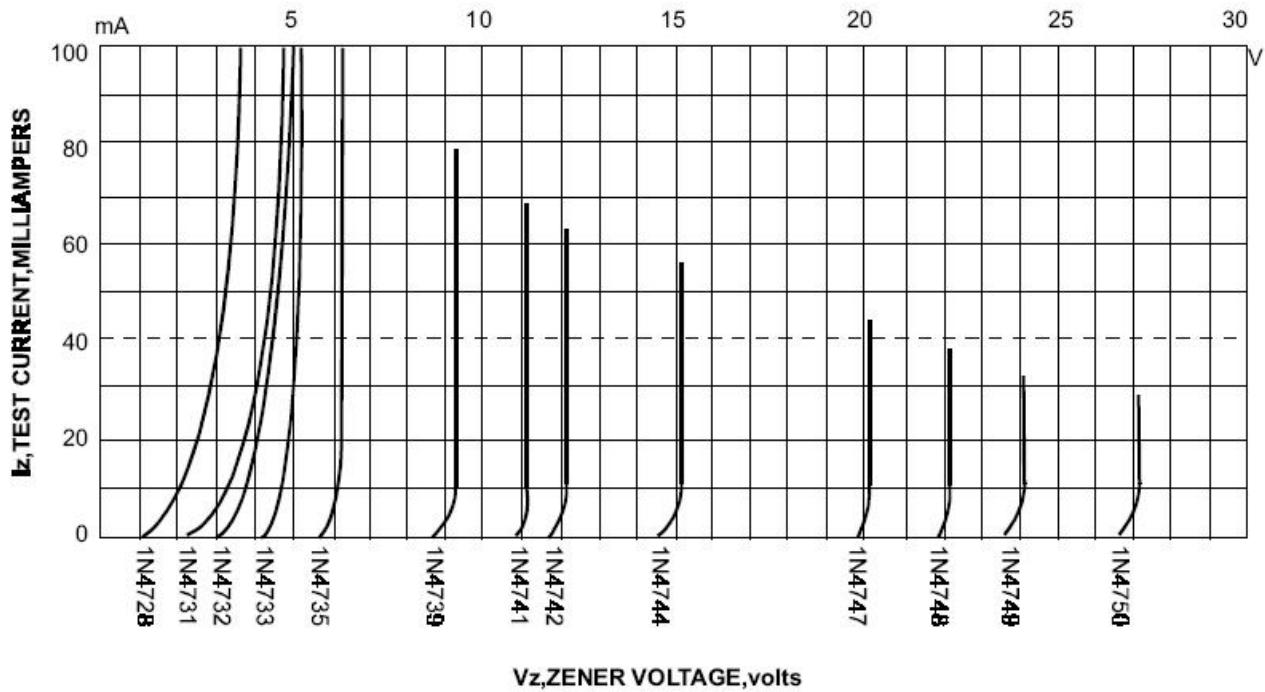
**Electrical Characteristics @ $T_A=25^\circ\text{C}$  unless otherwise specified**

Device Type	Nominal Zener Voltage $V_Z@I_{ZT}$	Test Current $I_{ZT}$	Maximum Zener Impedance		Maximum Reverse Leakage Current		$I_{ZK}$	Max. Surge Current $I_{R@25^\circ\text{C}}$	Maximum Regulator Current $I_{ZM}$
			$Z_{ZT@I_{ZT}}$	$Z_{ZT@I_{ZK}}$	$I_R$	@ $V_R$			
			Volts	Ohms	Ohms	$\mu\text{A}$			
1N4728A	3.3	76	10	400	100	1.0	1.0	1380	276
1N4729A	3.6	69	10	400	100	1.0	1.0	1260	252
1N4730A	3.9	64	9.0	400	50	1.0	1.0	1170	234
1N4731A	4.3	58	9.0	400	10	1.0	1.0	1085	217
1N4732A	4.7	53	8.0	500	10	1.0	1.0	965	193
1N4733A	5.1	49	7.0	550	10	1.0	1.0	890	178
1N4734A	5.6	45	5.0	600	10	2.0	1.0	810	162
1N4735A	6.2	41	2.0	700	10	3.0	1.0	730	146
1N4736A	6.8	37	3.5	700	10	4.0	1.0	660	133
1N4737A	7.5	34	4.0	700	10	5.0	0.5	605	121
1N4738A	8.2	31	4.5	700	10	6.0	0.5	550	110
1N4739A	9.1	28	5.0	700	10	7.0	0.5	500	100
1N4740A	10	25	7.0	700	10	7.6	0.25	454	91
1N4741A	11	23	8.0	700	5.0	8.4	0.25	414	83
1N4742A	12	21	9.0	700	5.0	9.1	0.25	380	76
1N4743A	13	19	10	700	5.0	9.9	0.25	344	69
1N4744A	15	17	14	700	5.0	11.4	0.25	304	61
1N4745A	16	15.5	16	700	5.0	12.2	0.25	285	57
1N4746A	18	14	20	750	5.0	13.7	0.25	250	50
1N4747A	20	12.5	22	750	5.0	15.2	0.25	225	45
1N4748A	22	11.5	23	750	5.0	16.7	0.25	205	41
1N4749A	24	10.5	25	750	5.0	18.2	0.25	190	38
1N4750A	27	9.5	35	750	5.0	20.6	0.25	170	34
1N4751A	30	8.5	40	1000	5.0	22.8	0.25	150	30
1N4752A	33	7.5	45	1000	5.0	25.1	0.25	135	27
1N4753A	36	7.0	50	1000	5.0	27.4	0.25	125	25
1N4754A	39	6.5	60	1000	5.0	29.7	0.25	115	23
1N4755A	43	6.0	70	1500	5.0	32.7	0.25	110	22
1N4756A	47	5.5	80	1500	5.0	35.8	0.25	95	19
1N4757A	51	5.0	95	1500	5.0	38.8	0.25	90	18
1N4758A	56	4.5	110	2000	5.0	42.6	0.25	80	16
1N4759A	62	4.0	125	2000	5.0	47.1	0.25	70	14
1N4760A	68	3.7	150	2000	5.0	51.7	0.25	65	13
1N4761A	75	3.3	175	2000	5.0	56.0	0.25	60	12
1N4762A	82	3.0	200	3000	5.0	62.2	0.25	55	11
1N4763A	91	2.8	250	3000	5.0	69.2	0.25	50	10
1N4764A	100	2.5	350	3000	5.0	76.0	0.25	45	9

Note 1. Suffix "A" indicate  $\pm 5\%$  tolerance

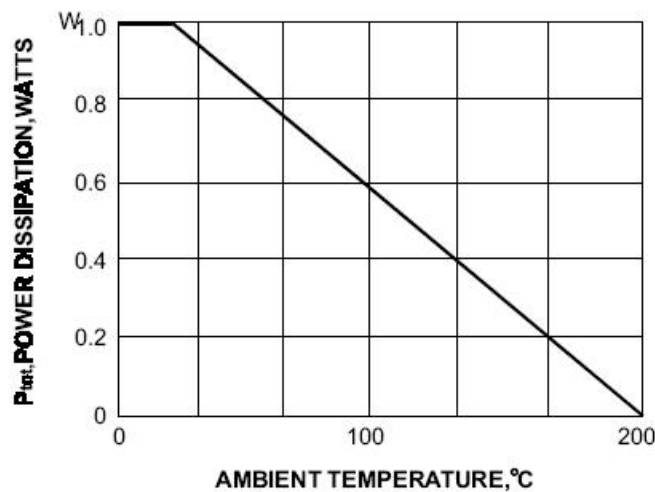
**Ratings and Characteristics Curves**

**Breakdown characteristics**

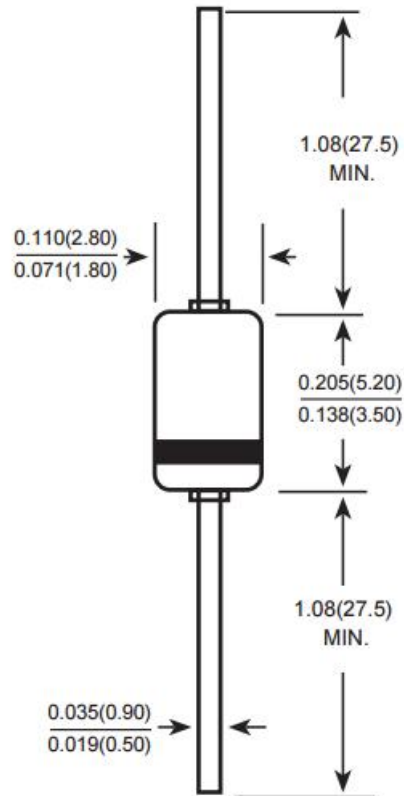


**Admissible power dissipation versus ambient temperature**

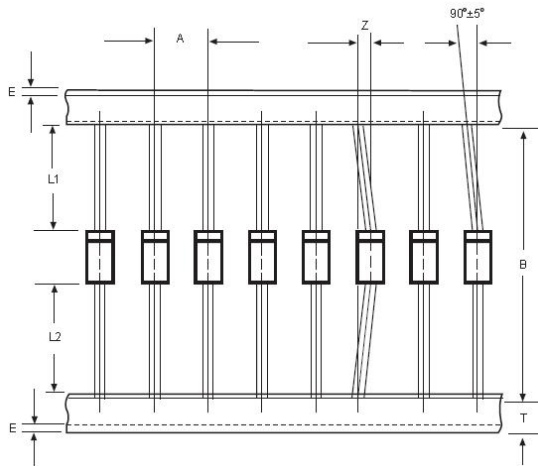
Valid provided that leads are kept at ambient temperature at a distance of 10mm from case



**Mechanical Dimensions DO-41(Inches/Millimeters)**



**Carrier Tape Specification DO-41**



SYMBOL	Millimeters	
	Min.	Max.
A	4.50	5.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

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