

# 1N4728A through 1N4753A

Silicon Epitaxial Planar Zener Diodes for Stabilized Power Supply

## HITACHI

ADE-208-136C (Z)

Rev.3  
Sep. 2000

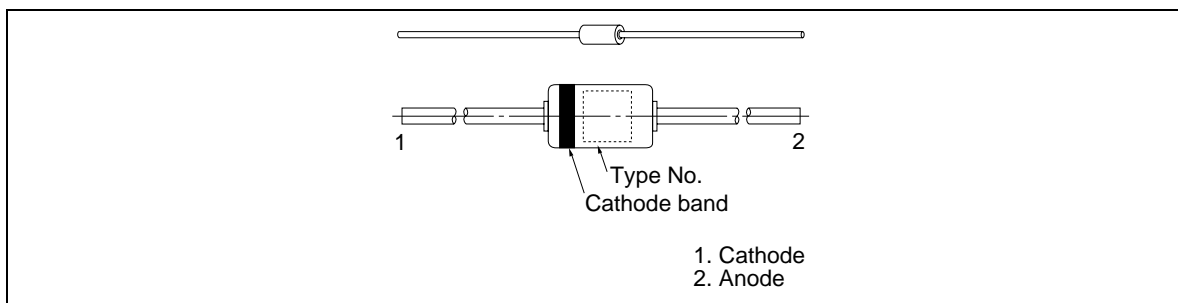
### Features

- Glass package DO-41 structure ensures high reliability.
- Wide spectrum from 3.3V through 36V of zener voltage provide flexible application.

### Ordering Information

Type No.	Mark	Package Code
1N4728A through 1N4753A	Type No.	DO-41

### Outline



### Absolute Maximum Ratings

( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Value	Unit
Power dissipation	$P_d$ *1	1.0	W
Junction temperature	$T_j$	200	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-65 to +200	$^\circ\text{C}$

Note: 1. See Fig.3

# 1N4728A through 1N4753A

## Electrical Characteristics

(T<sub>a</sub> = 25°C)

Type No.	V <sub>Z</sub> (V) * <sup>1</sup>	I <sub>R</sub> (μA)		Z <sub>ZT</sub> (Ω)		Z <sub>ZK</sub> (Ω)		I <sub>RSM</sub> (mA)* <sup>2</sup>	
	Max	Test Condition	Test Condition	Test Condition	Test Condition	Test Condition	Test Condition	Test Condition	Test Condition
		I <sub>Z</sub> (mA)	Max	V <sub>R</sub> (V)	Max	I <sub>ZT</sub> (mA)	Max	I <sub>ZK</sub> (mA)	Max
1N4728A	3.3 ± 5 (%)	76	100	1.0	10	76	400	1.0	1380
1N4729A	3.6 ± 5 (%)	69	100	1.0	10	69	400	1.0	1260
1N4730A	3.9 ± 5 (%)	64	50	1.0	9	64	400	1.0	1190
1N4731A	4.3 ± 5 (%)	58	10	1.0	9	58	400	1.0	1070
1N4732A	4.7 ± 5 (%)	53	10	1.0	8	53	500	1.0	970
1N4733A	5.1 ± 5 (%)	49	10	1.0	7	49	550	1.0	890
1N4734A	5.6 ± 5 (%)	45	10	2.0	5	45	600	1.0	810
1N4735A	6.2 ± 5 (%)	41	10	3.0	2	41	700	1.0	730
1N4736A	6.8 ± 5 (%)	37	10	4.0	3.5	37	700	1.0	660
1N4737A	7.5 ± 5 (%)	34	10	5.0	4	34	700	0.5	605
1N4738A	8.2 ± 5 (%)	31	10	6.0	4.5	31	700	0.5	550
1N4739A	9.1 ± 5 (%)	28	10	7.0	5	28	700	0.5	500
1N4740A	10 ± 5 (%)	25	10	7.6	7	25	700	0.25	454
1N4741A	11 ± 5 (%)	23	5	8.4	8	23	700	0.25	414
1N4742A	12 ± 5 (%)	21	5	9.1	9	21	700	0.25	380
1N4743A	13 ± 5 (%)	19	5	9.9	10	19	700	0.25	344
1N4744A	15 ± 5 (%)	17	5	11.4	14	17	700	0.25	304
1N4745A	16 ± 5 (%)	15.5	5	12.2	16	15.5	750	0.25	285
1N4746A	18 ± 5 (%)	14.0	5	13.7	20	14.0	750	0.25	250
1N4747A	20 ± 5 (%)	12.5	5	15.2	22	12.5	750	0.25	225
1N4748A	22 ± 5 (%)	11.5	5	16.7	23	11.5	750	0.25	205
1N4749A	24 ± 5 (%)	10.5	5	18.2	25	10.5	750	0.25	190
1N4750A	27 ± 5 (%)	9.5	5	20.6	35	9.5	750	0.25	170
1N4751A	30 ± 5 (%)	8.5	5	22.8	40	8.5	1000	0.25	150
1N4752A	33 ± 5 (%)	7.5	5	25.1	45	7.5	1000	0.25	135
1N4753A	36 ± 5 (%)	7.0	5	27.4	50	7.0	1000	0.25	125

Notes: 1. Tested with DC

2. t = 1/120 sec reverse direction 1pulse

Main Characteristic

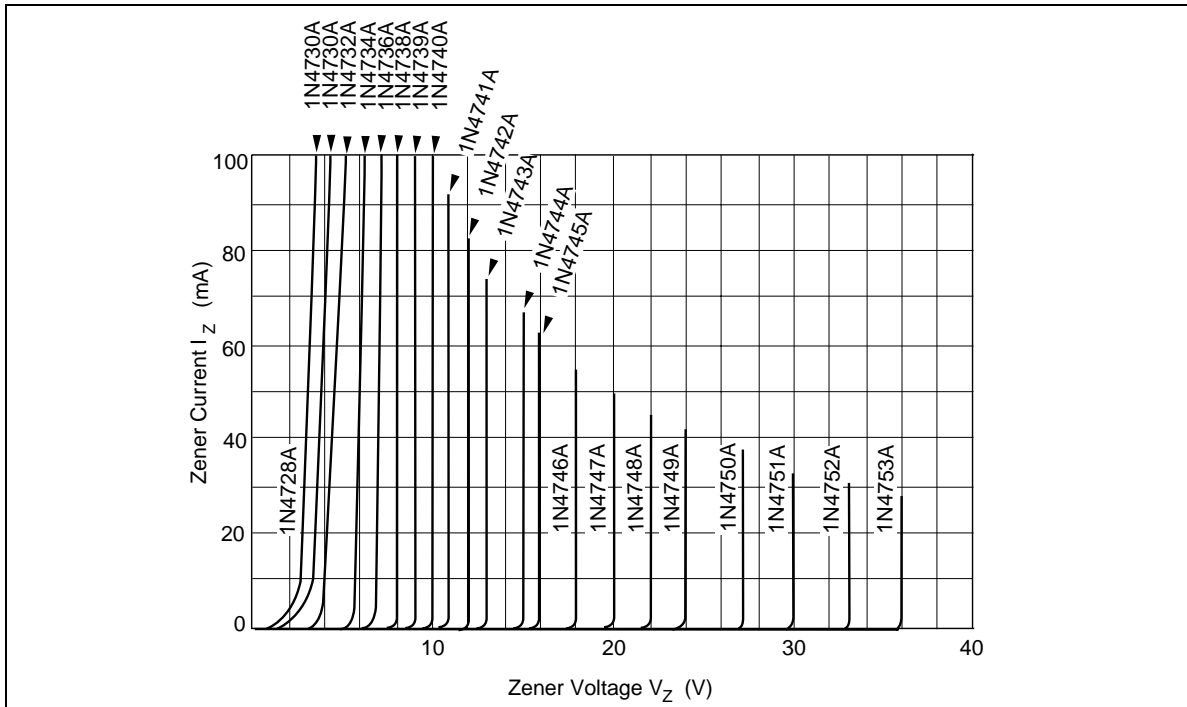


Fig.1 Zener current Vs. Zener voltage

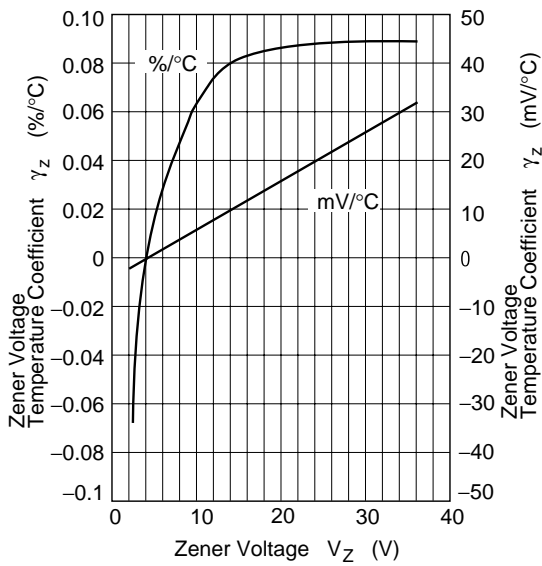


Fig.2 Temperature Coefficient Vs. Zener voltage

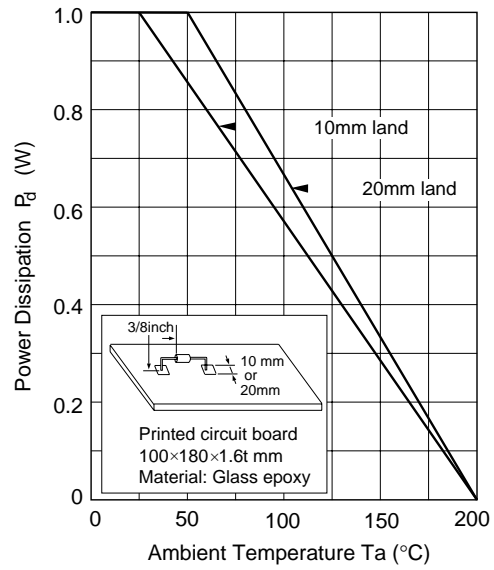


Fig.3 Power Dissipation Vs. Ambient Temperature

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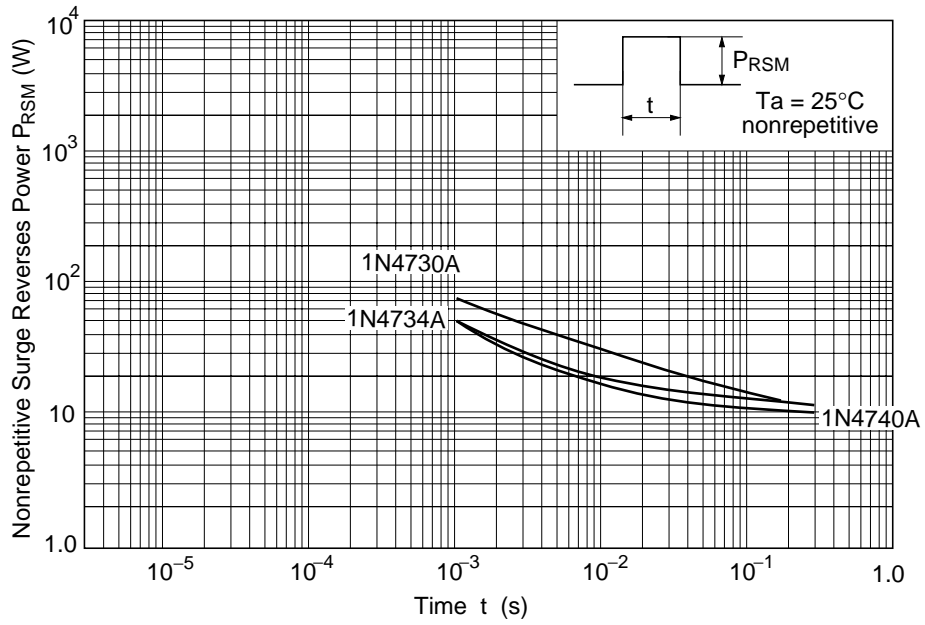


Fig.4 Surge Reverse Power Ratings

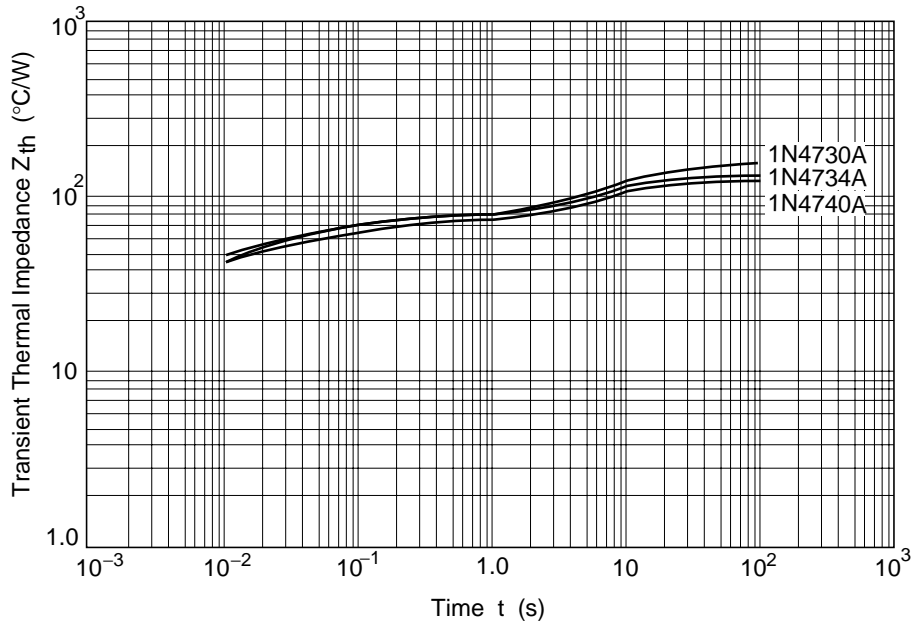


Fig.5 Transient Thermal Impedance

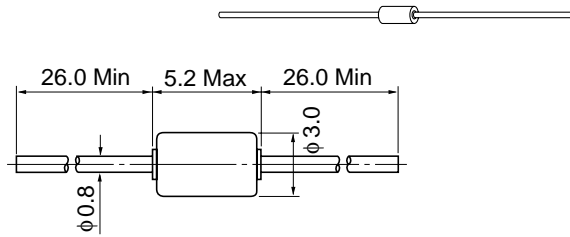
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## 1N4728A through 1N4753A

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### Package Dimensions

Unit: mm



Hitachi Code	DO-41
JEDEC	Conforms
EIAJ	Conforms
Mass (reference value)	0.38 g

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## 1N4728A through 1N4753A

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