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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

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1N4728A through 1N4753A

Silicon Epitaxial Planar Zener Diodes for Stabilized Power Supply



ADE-208-136C (Z)

Rev.3
Sep. 2000

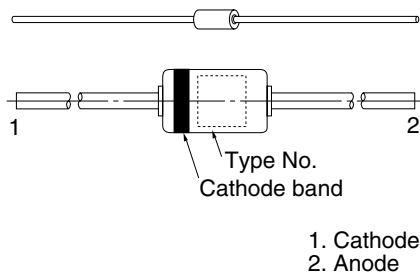
Features

- 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

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd * ¹	1.0	W
Junction temperature	Tj	200	°C
Storage temperature	Tstg	-65 to +200	°C

Note: 1. See Fig.3

1N4728A through 1N4753A

Electrical Characteristics

(Ta = 25°C)

Type No.	V_Z (V) * ¹		I_R (μA)		Z_{ZT} (Ω)		Z_{ZK} (Ω)		I_{RSM} (mA)* ²	
	Test Condition		Test Condition		Test Condition		Test Condition		Test Condition	
	Max	I_Z (mA)	Max	V_R (V)	Max	I_{ZT} (mA)	Max	I_{ZK} (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

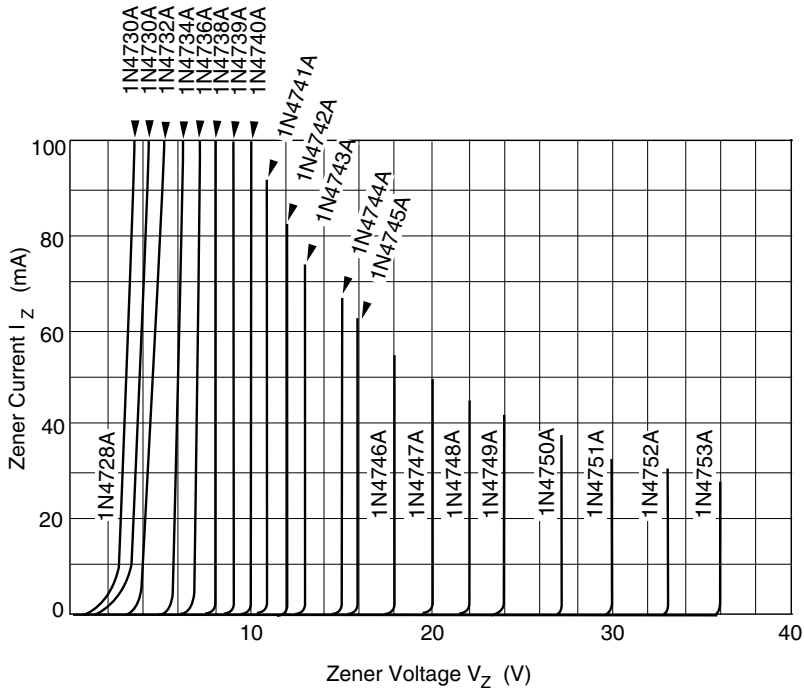


Fig.1 Zener current Vs. Zener voltage

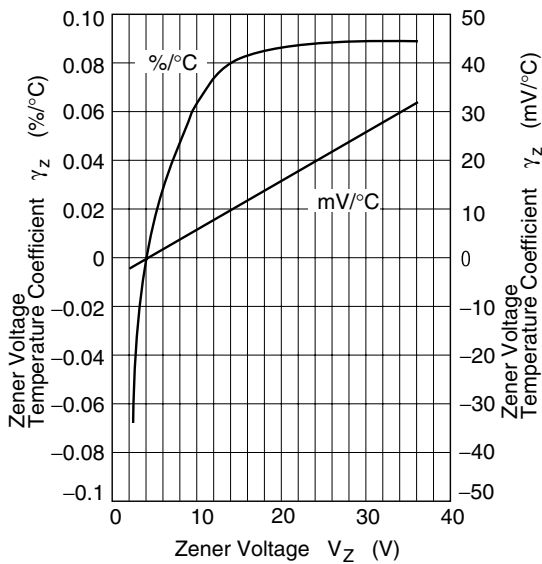


Fig.2 Temperature Coefficient Vs. Zener voltage

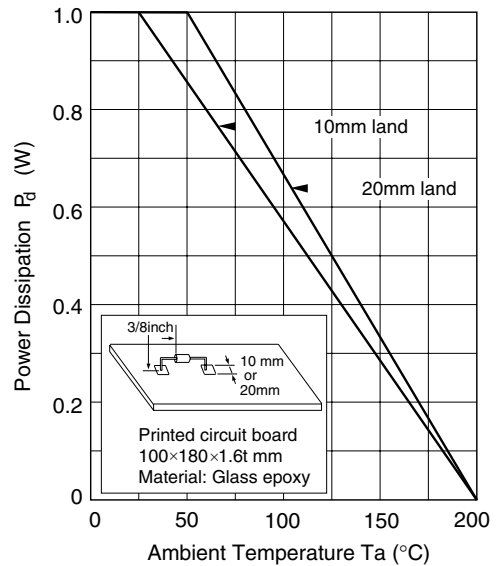


Fig.3 Power Dissipation Vs. Ambient Temperature

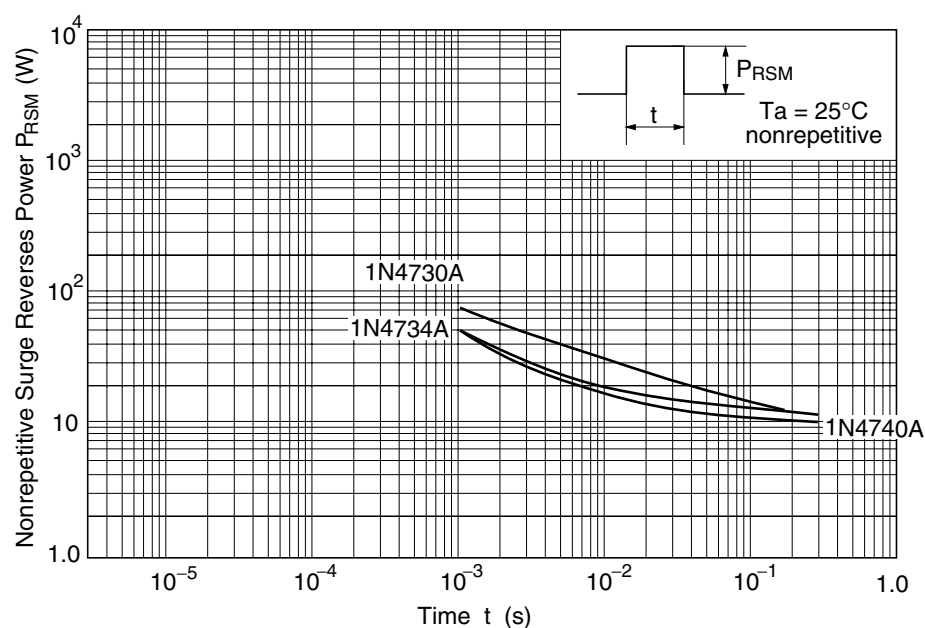


Fig.4 Surge Reverse Power Ratings

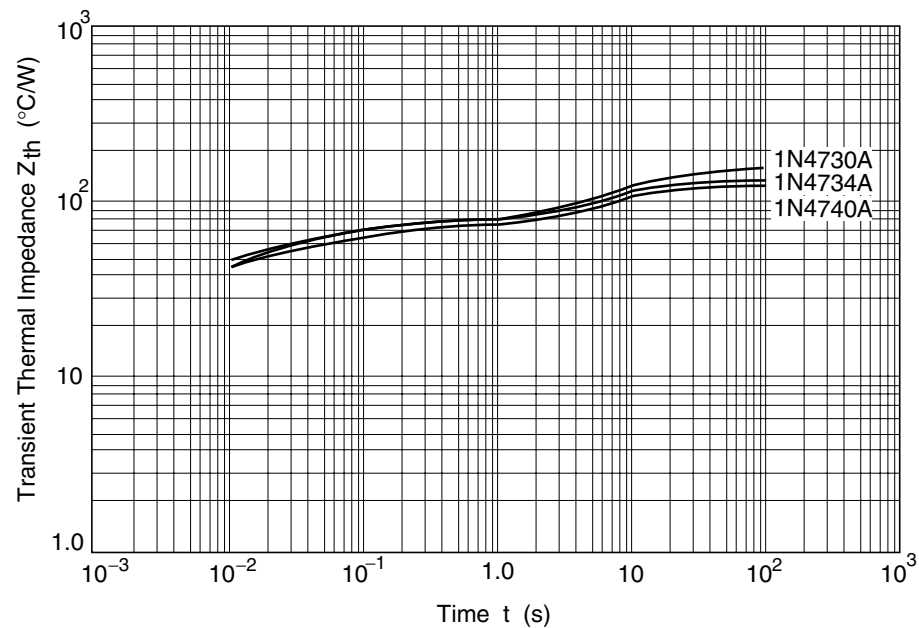
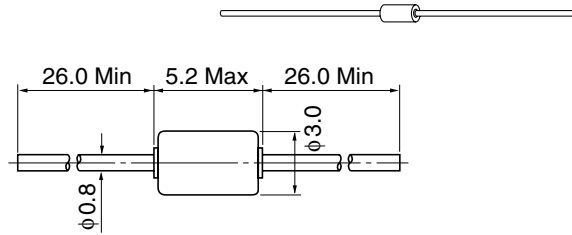


Fig.5 Transient Thermal Impedance

Package Dimensions

Unit: mm



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

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