

To our customers,

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## Old Company Name in Catalogs and Other Documents

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April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

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EOL Product

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# 1N4728A through 1N4753A

Silicon Planar Zener Diodes for Stabilized Power Supply

REJ03G1221-0500  
Rev.5.00  
Nov 13, 2007

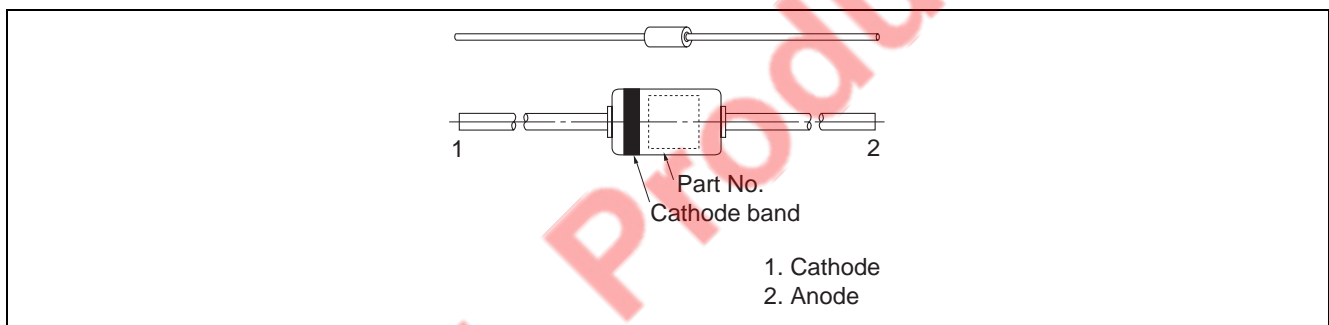
## Features

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

## Ordering Information

Part No.	Cathode Band	Mark	Package Name	Package Code
1N4728A through 1N4753A	Black	Part No.	DO-41	GRZZ0002ZA-A

## Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

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

Note: See Fig.3

## Electrical Characteristics

(Ta = 25°C)

Part No.	Zener Voltage		Reverse Current		Dynamic Resistance				I <sub>RSM</sub> (mA) *2
	V <sub>Z</sub> (V) *1	Test Condition	I <sub>R</sub> (μA)	Test Condition	Z <sub>ZT</sub> (Ω)	Test Condition	Z <sub>ZK</sub> (Ω)	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)	
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 s reverse direction 1pulse

Main Characteristic

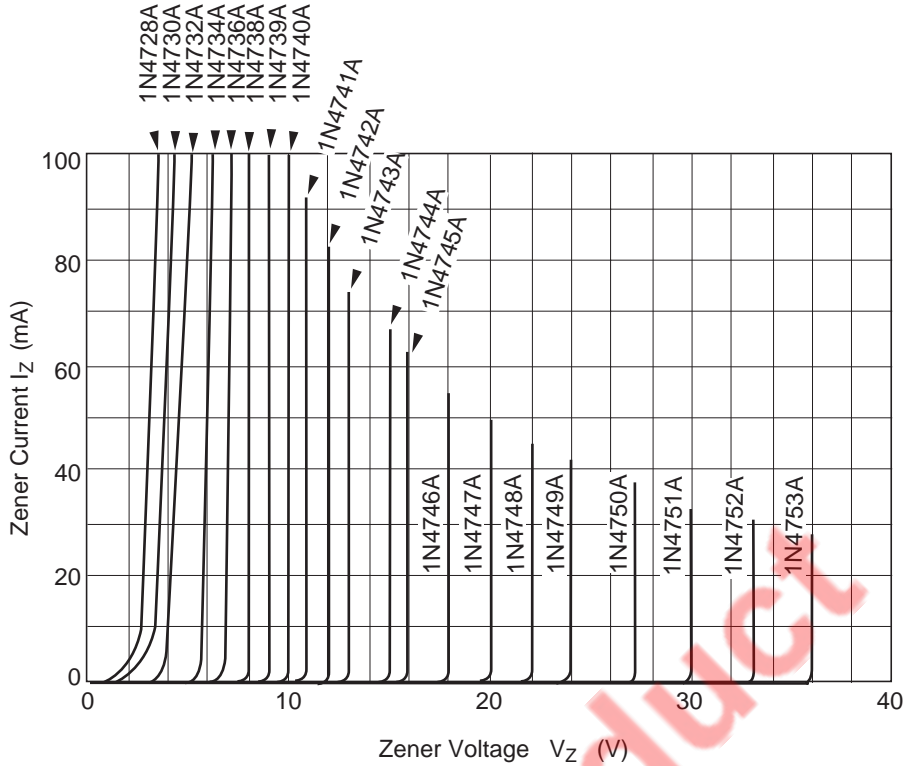


Fig.1 Zener current vs. Zener voltage

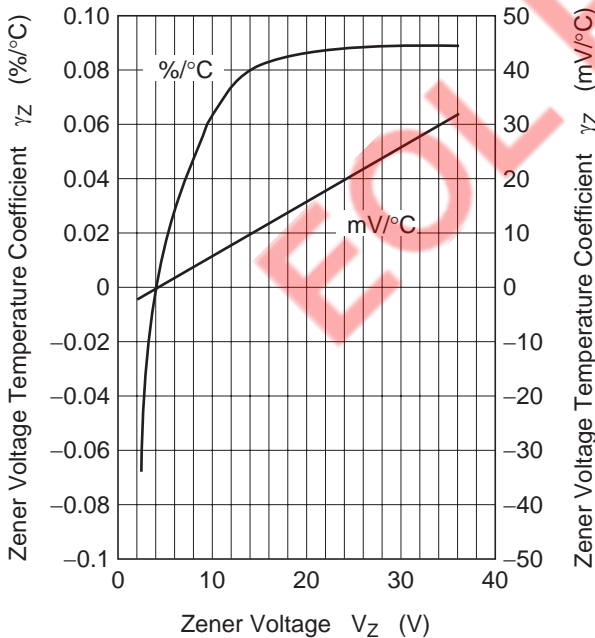


Fig.2 Temperature Coefficient vs. Zener voltage

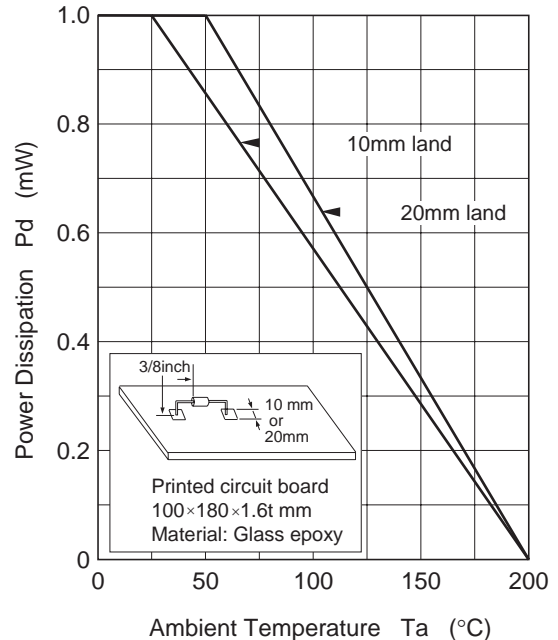


Fig.2 Power Dissipation vs. Ambient Temperature

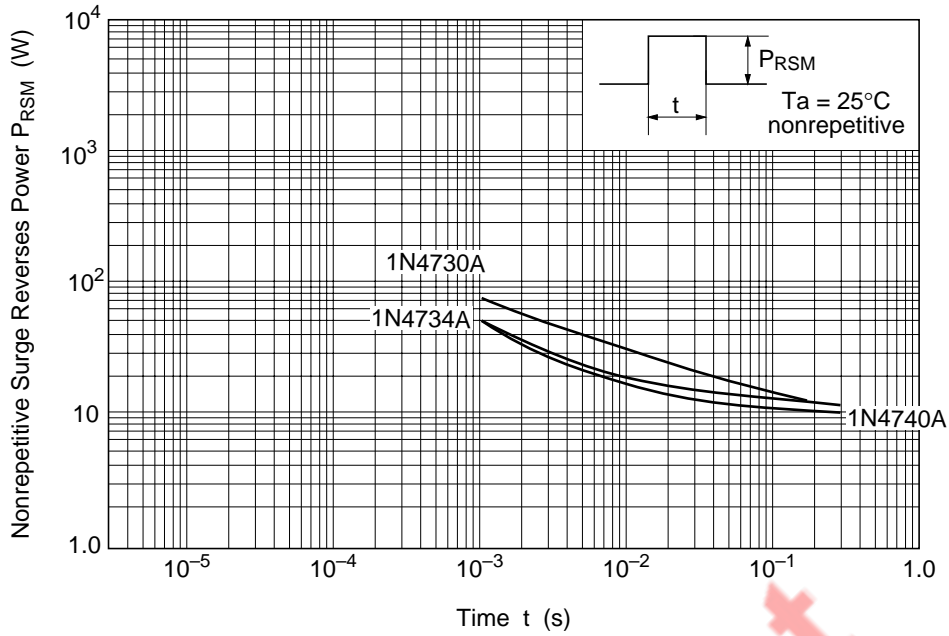


Fig.4 Surge Reverse Power Ratings

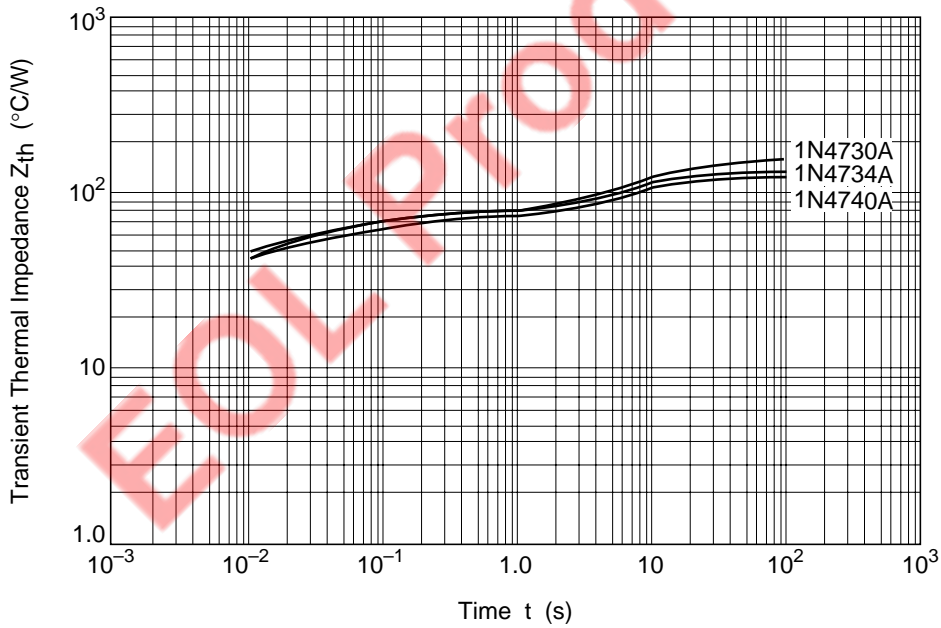
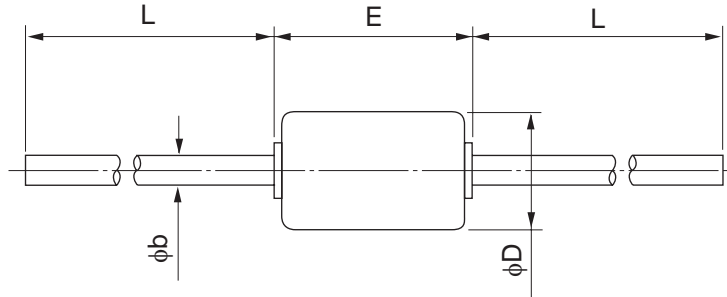


Fig.5 Transient Thermal Impedance

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
DO-41	—	GRZZ0002ZA-A	DO-41 / DO-41V	0.38g



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
$\phi b$	-	0.8	-
$\phi D$	-	3.0	-
E	-	-	5.2
L	26.0	-	-

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