



# HZ-N Series

## Silicon Planar Zener Diode for Stabilized Power Supply

REJ03G1625-0100

Rev.1.00

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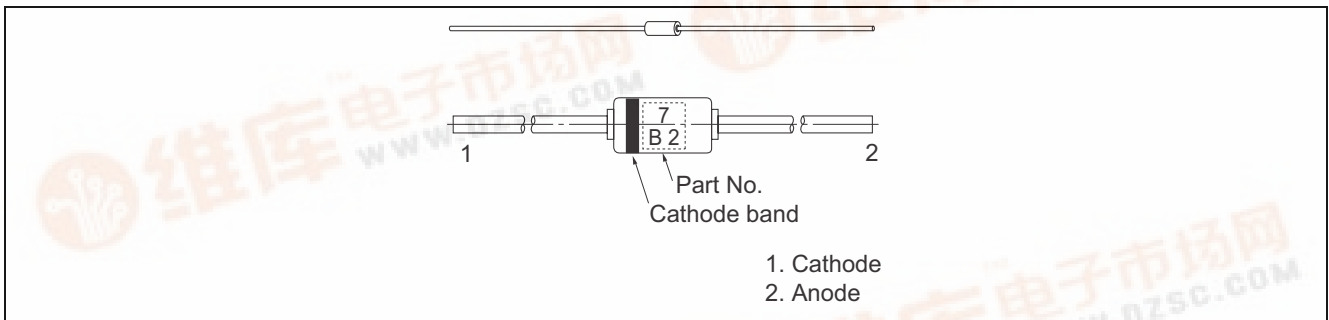
### Features

- Low leakage, low zener impedance and maximum power dissipation of 500 mW are ideally suited for stabilized power supply, etc.
- Wide spectrum from 1.9 V through 38 V of zener voltage provide flexible application.

### Ordering Information

Part No.	Cathode band	Package Name	Package Code
HZ-N Series	Black	DO-35	GRZZ0002ZB-A

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd	500	mW
Junction temperature	Tj	175	°C
Storage temperature	Tstg	-55 to +175	°C

## Electrical Characteristics

(Ta = 25°C)

Type	Grade	Zener Voltage		Reverse Current		Dynamic Resistance		
		V <sub>Z</sub> (V) *1		Test Condition	I <sub>R</sub> (μA)	Test Condition	r <sub>d</sub> (Ω)	Test Condition
		Min	Max	I <sub>Z</sub> (mA)	Max	V <sub>R</sub> (V)	Max	I <sub>Z</sub> (mA)
HZ2	B1-N	1.9	2.1	5	5	0.5	100	5
	B2-N	2.0	2.2					
	B3-N	2.1	2.3					
	C1-N	2.2	2.4					
	C2-N	2.3	2.5					
	C3-N	2.4	2.6					
HZ3	A1-N	2.5	2.7	5	5	0.5	100	5
	A2-N	2.6	2.8					
	A3-N	2.7	2.9					
	B1-N	2.8	3.0					
	B2-N	2.9	3.1					
	B3-N	3.0	3.2					
	C1-N	3.1	3.3					
	C2-N	3.2	3.4					
	C3-N	3.3	3.5					
HZ4	A1-N	3.4	3.6	5	5	1.0	100	5
	A2-N	3.5	3.7					
	A3-N	3.6	3.8					
	B1-N	3.7	3.9					
	B2-N	3.8	4.0					
	B3-N	3.9	4.1					
	C1-N	4.0	4.2					
	C2-N	4.1	4.3					
	C3-N	4.2	4.4					
HZ5	A1-N	4.3	4.5	5	5	1.5	100	5
	A2-N	4.4	4.6					
	A3-N	4.5	4.7					
	B1-N	4.6	4.8					
	B2-N	4.7	4.9					
	B3-N	4.8	5.0					
	C1-N	4.9	5.1	5	5	1.5	100	5
	C2-N	5.0	5.2					
	C3-N	5.1	5.3					

Note: 1. Tested with DC.

**HZ-N Series**

(Ta = 25°C)

Type	Grade	Zener Voltage		Reverse Current		Dynamic Resistance		
		V <sub>Z</sub> (V) *1		Test Condition	I <sub>R</sub> (μA)	Test Condition	r <sub>d</sub> (Ω)	Test Condition
		Min	Max	I <sub>Z</sub> (mA)	Max	V <sub>R</sub> (V)	Max	I <sub>Z</sub> (mA)
HZ6	A1-N	5.2	5.5	5	5	2.0	40	5
	A2-N	5.3	5.6					
	A3-N	5.4	5.7					
	B1-N	5.5	5.8					
	B2-N	5.6	5.9					
	B3-N	5.7	6.0					
	C1-N	5.8	6.1					
	C2-N	6.0	6.3					
	C3-N	6.1	6.4					
HZ7	A1-N	6.3	6.6	5	1	3.5	15	5
	A2-N	6.4	6.7					
	A3-N	6.6	6.9					
	B1-N	6.7	7.0					
	B2-N	6.9	7.2					
	B3-N	7.0	7.3					
	C1-N	7.2	7.6					
	C2-N	7.3	7.7					
	C3-N	7.5	7.9					
HZ9	A1-N	7.7	8.1	5	1	5.0	20	5
	A2-N	7.9	8.3					
	A3-N	8.1	8.5					
	B1-N	8.3	8.7					
	B2-N	8.5	8.9					
	B3-N	8.7	9.1					
	C1-N	8.9	9.3					
	C2-N	9.1	9.5					
	C3-N	9.3	9.7					
HZ11	A1-N	9.5	9.9	5	1	7.5	25	5
	A2-N	9.7	10.1					
	A3-N	9.9	10.3					
	B1-N	10.2	10.6					
	B2-N	10.4	10.8					
	B3-N	10.7	11.1					
	C1-N	10.9	11.3					
	C2-N	11.1	11.6					
	C3-N	11.4	11.9					
HZ12	A1-N	11.6	12.1	5	1	9.5	35	5
	A2-N	11.9	12.4					
	A3-N	12.2	12.7					
	B1-N	12.4	12.9					
	B2-N	12.6	13.1					
	B3-N	12.9	13.4					
	C1-N	13.2	13.7					
	C2-N	13.5	14.0					
	C3-N	13.8	14.3					

Note: 1. Tested with DC.

## HZ-N Series

(Ta = 25°C)

Type	Grade	Zener Voltage		Reverse Current		Dynamic Resistance		
		V <sub>Z</sub> (V) *1		Test Condition	I <sub>R</sub> (μA)	Test Condition	r <sub>d</sub> (Ω)	Test Condition
		Min	Max	I <sub>Z</sub> (mA)	Max	V <sub>R</sub> (V)	Max	I <sub>Z</sub> (mA)
HZ15	-1-N	14.1	14.7	5	1	11	40	5
	-2-N	14.5	15.1					
	-3-N	14.9	15.5					
HZ16	-1-N	15.3	15.9	5	1	12	45	5
	-2-N	15.7	16.5					
	-3-N	16.3	17.1					
HZ18	-1-N	16.9	17.7	5	1	13	55	5
	-2-N	17.5	18.3					
	-3-N	18.1	19.0					
HZ20	-1-N	18.8	19.7	2	1	15	60	2
	-2-N	19.5	20.4					
	-3-N	20.2	21.1					
HZ22	-1-N	20.9	21.9	2	1	17	65	2
	-2-N	21.6	22.6					
	-3-N	22.3	23.3					
HZ24	-1-N	22.9	24.0	2	1	19	70	2
	-2-N	23.6	24.7					
	-3-N	24.3	25.5					
HZ27	-1-N	25.2	26.6	2	1	21	80	2
	-2-N	26.2	27.6					
	-3-N	27.2	28.6					
HZ30	-1-N	28.2	29.6	2	1	23	100	2
	-2-N	29.2	30.6					
	-3-N	30.2	31.6					
HZ33	-1-N	31.2	32.6	2	1	25	120	2
	-2-N	32.2	33.6					
	-3-N	33.2	34.6					
HZ36	-1-N	34.2	35.7	2	1	27	140	2
	-2-N	35.3	36.8					
	-3-N	36.4	38.0					

Notes: 1. Tested with DC.

2. Part No. is as follows; HZ2B1-N, HZ2B2-N, HZ36-3-N.

Main Characteristic

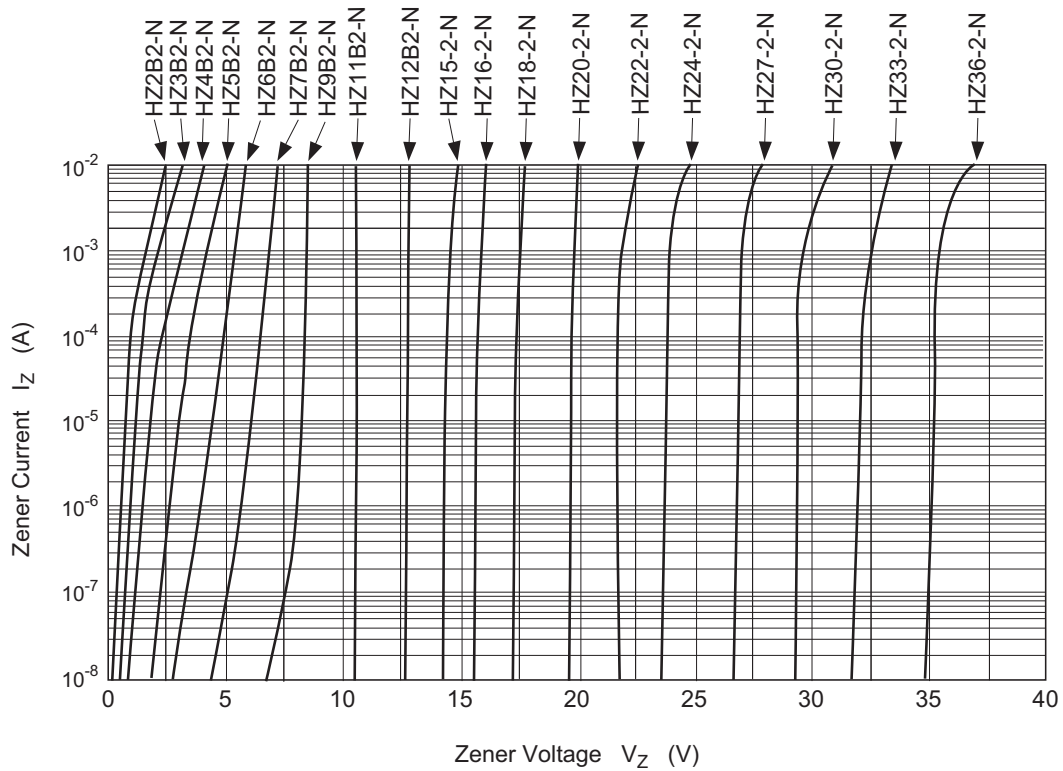


Fig.1 Zener current vs. Zener voltage

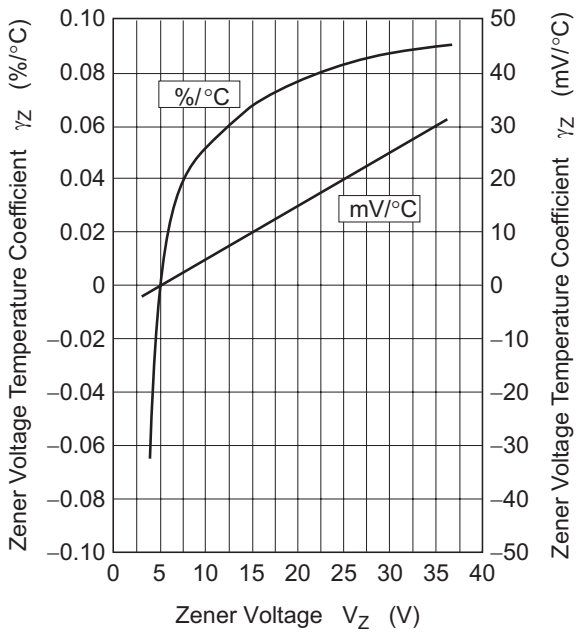


Fig.2 Temperature Coefficient vs. Zener voltage

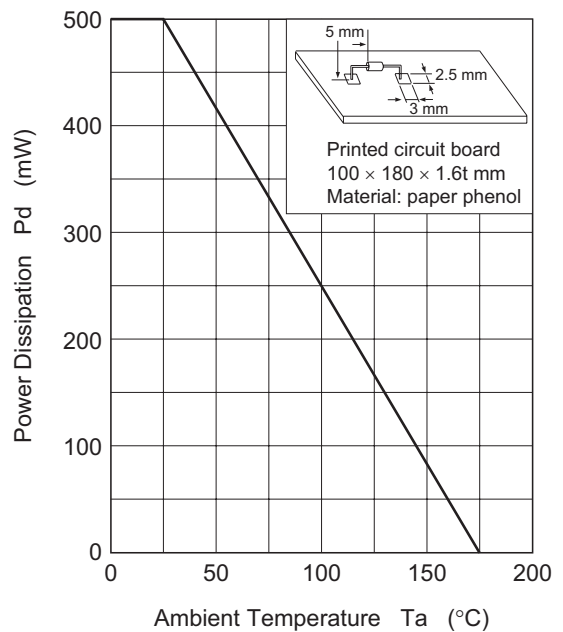
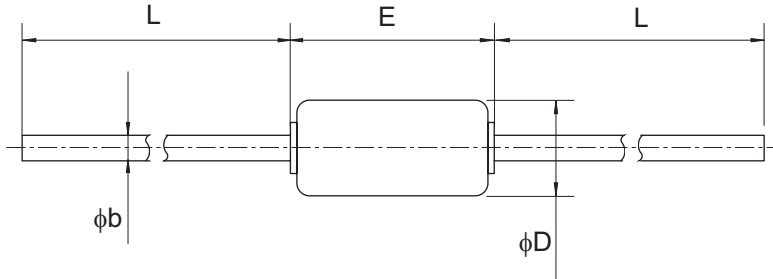


Fig.3 Power Dissipation vs. Ambient Temperature

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
DO-35	SC-40	GRZZ0002ZB-A	DO-35 / DO-35V	0.13g



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
phi b	-	0.5	-
phi D	-	2.0	-
E	-	-	4.2
L	26.0	-	-

Notes:

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**Renesas Technology Taiwan Co., Ltd.**  
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**Renesas Technology Singapore Pte. Ltd.**  
1 Harbour Front Avenue, #06-10, Keppel Bay Tower, Singapore 098632  
Tel: <65> 6213-0200, Fax: <65> 6278-8001

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Kukje Center Bldg, 18th Fl., 191, 2-ka, Hangang-ro, Yongsan-ku, Seoul 140-702, Korea  
Tel: <82> (2) 796-3115, Fax: <82> (2) 796-2145

**Renesas Technology Malaysia Sdn. Bhd**  
Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No.18, Jln Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia  
Tel: <603> 7955-9390, Fax: <603> 7955-9510