To our customers,

Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: http://www.renesas.com

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (http://www.renesas.com)

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HZK-LL Series

Silicon Planar Zener Diode for Hard Knee Low Noise

REJ03G0020-0300
Rev.3.00
Nov 09, 2007

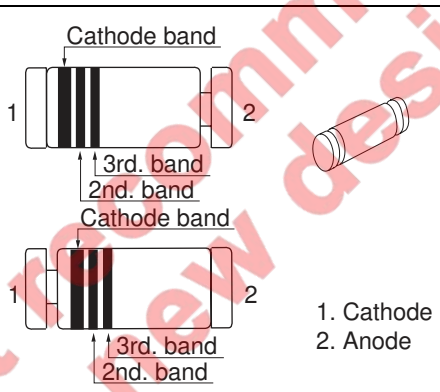
Features

- Low dynamic impedance and low noise in the low current region (approximately 1/10 lower than the current zeners).
- LLD package is suitable for high density surface mounting and high speed assembly.

Ordering Information Ordering Information

Part No.	Mark	Package Name	Package Code
HZK-LL Series	Color Code	LLD	GLZZ0002ZA-A

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd *	250	mW
Junction temperature	Tj	175	°C
Storage temperature	Tstg	–55 to +175	°C

Note: With P.C. Board.

Electrical Characteristics

(Ta = 25°C)

Part No.	Zener Voltage			Reverse Current		Dynamic Resistance				Linearity*3	
	V_Z(V) *1			I_R (nA)		Z_{ZT} (Ω)		Z_{ZK} (Ω)*2		ΔV_{Z1} (V)	ΔV_{Z2}(V)
	Min	Max	I_Z (mA)	Max	V_R (V)	Max	I_{ZT} (mA)	Typ	I_{ZK} (μA)	Max	Max
HZK2ALL	1.6	2.0	0.5	100	0.5	350	0.5	(1.2)	50	0.5	0.6
HZK2BLL	1.9	2.3									
HZK2CLL	2.2	2.6									
HZK3ALL	2.5	2.9	0.5	100	1.0	360	0.5	(1.2)	50	0.5	0.6
HZK3BLL	2.8	3.2									
HZK3CLL	3.1	3.5									
HZK4ALL	3.4	3.8	0.5	100	2.0	370	0.5	(1.5)	50	0.5	0.6
HZK4BLL	3.7	4.1									
HZK4CLL	4.0	4.4									
HZK5ALL	4.3	4.7	0.5	100	3.0	380	0.5	(1.5)	50	0.5	0.6
HZK5BLL	4.6	5.0									
HZK5CLL	4.9	5.3									

Notes: 1. Tested with DC.

2. Reference only.

3. $\Delta V_{Z1} = V_Z$ (I_Z = 0.5 mA) – V_{Z1} (I_z = 0.05 mA) $\Delta V_{Z2} = V_{Z1}$ (IZ = 0.05 mA) – V_{Z2} (I_z = 0.001 mA)

Mark Color Code

Type	Cathode Band	Second Band	Third Band
HZK2ALL	Verdure	Yellow Ocher	Pink
HZK2BLL	Verdure	Yellow Ocher	Blue
HZK2CLL	Verdure	Yellow Ocher	Light Blue
HZK3ALL	Verdure	Pink	Pink
HZK3BLL	Verdure	Pink	Blue
HZK3CLL	Verdure	Pink	Light Blue
HZK4ALL	Verdure	Orange	Pink
HZK4BLL	Verdure	Orange	Blue
HZK4CLL	Verdure	Orange	Light Blue
HZK5ALL	Verdure	Yellow	Pink
HZK5BLL	Verdure	Yellow	Blue
HZK5CLL	Verdure	Yellow	Light Blue

Main Characteristic

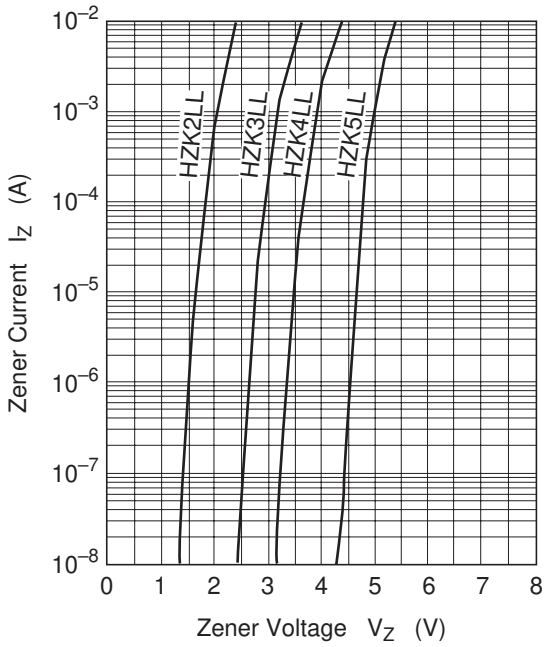


Fig.1 Zener current vs. Zener voltage

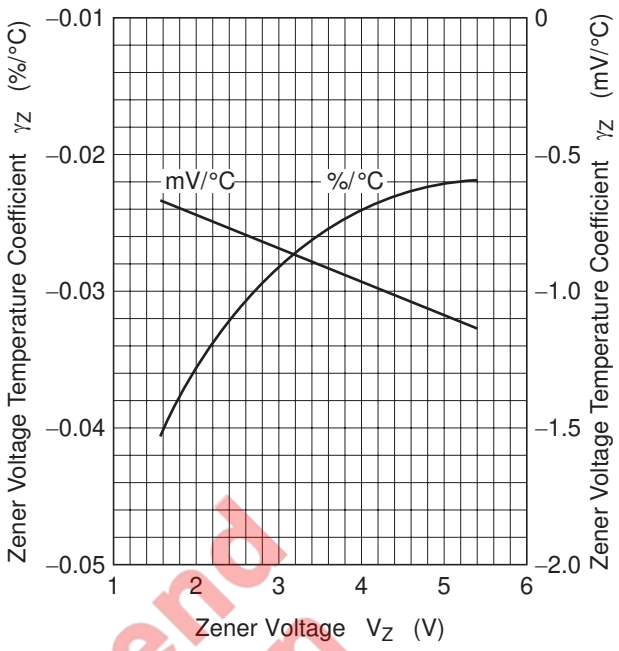


Fig.2 Temperature Coefficient vs. Zener voltage

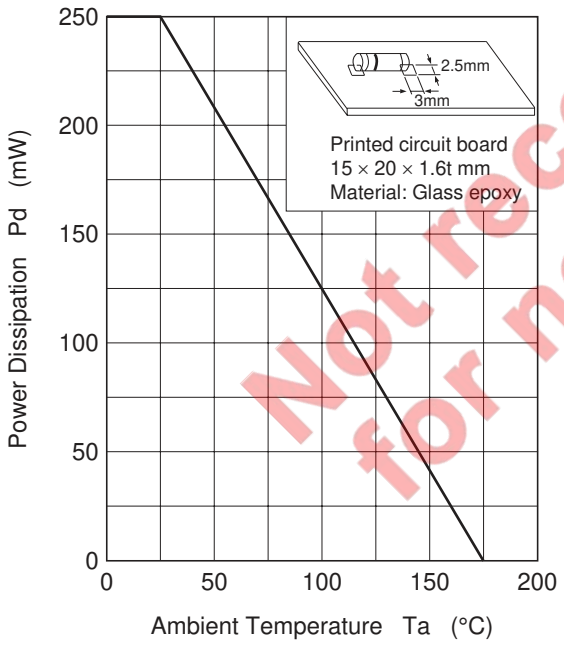
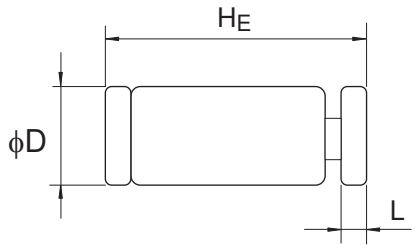


Fig.3 Power Dissipation vs. Ambient Temperature

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
LLD	—	GLZZ0002ZA-A	LLD / LLDV	0.027g



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
ϕD	1.25	1.35	1.45
H_E	3.30	3.50	3.60
L	-	0.35	-

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