
HZU-LL Series

Silicon Epitaxial Planar Zener Diode for Hard Knee Low Noise

HITACHI

ADE-208-236C (Z)

Rev.3
Dec. 2002

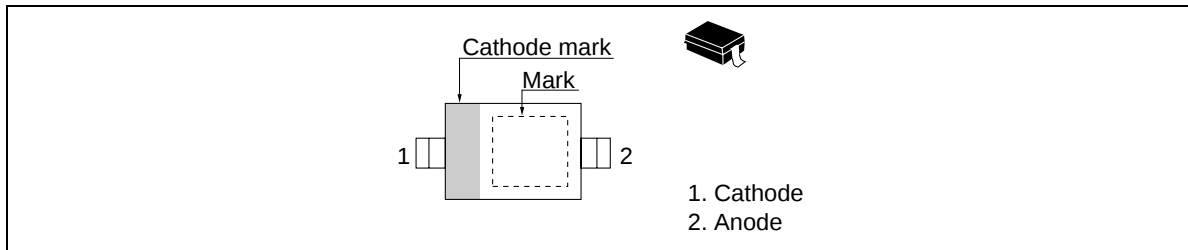
Features

- Low noise voltage (approximately 1/3 to 1/10 lower than the HZU series).
- Temperature coefficient is approximately 1/2 lower than the HZU series.
- Vz-Iz characteristics are semi-logarithmic linear from Iz=1nA to 1mA.
- Ultra small Resin Package(URP) is suitable for surface mount design.

Ordering Information

Type No.	Mark	Package Code
HZU-LL Series	Let to Mark Code	URP

Pin Arrangement



HZU-LL Series

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd * ¹	150	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

Note: 1. See Fig.3.

Electrical Characteristics

(Ta = 25°C)

Type	Grade	Zener Voltage		Reverse Current		Dynamic Resistance		Linearity	
		V _Z (V) * ¹	I _Z (mA)	I _R (nA)	V _R (V)	Z _{zT} (Ω)	Z _{zK} (kΩ) * ²	ΔV _Z (V) * ³	
		Min	Max	Max		Max	Typ	Max	
HZU2LL	A	1.6	2.0	0.5	100	0.5	350	0.5	(1.2) 50 0.5
	B	1.9	2.3						
	C	2.2	2.6						
HZU3LL	A	2.5	2.9	0.5	100	1.0	360	0.5	(1.2) 50 0.5
	B	2.8	3.2						
	C	3.1	3.5						
HZU4LL	A	3.4	3.8	0.5	100	2.0	370	0.5	(1.5) 50 0.5
	B	3.7	4.1						
	C	4.0	4.4						
HZU5LL	A	4.3	4.7	0.5	100	3.0	380	0.5	(1.5) 50 0.5
	B	4.6	5.0						
	C	4.9	5.3						

Notes: 1. Tested with DC.

2. Reference only.

3. $\Delta V_Z = V_Z (I_Z = 0.5 \text{ mA}) - V_Z (I_Z = 0.05 \text{ mA})$

4. Type No. is as follows; HZU2ALL, HZU2BLL, ... HZU5CLL.

Mark Code

Type	Grade	Mark No.	Type	Grade	Mark No.
HZU2LL	A	2A	HZU4LL	A	4A
	B	2B		B	4B
	C	2C		C	4C
HZU3LL	A	3A	HZU5LL	A	5A
	B	3B		B	5B
	C	3C		C	5C

Main Characteristic

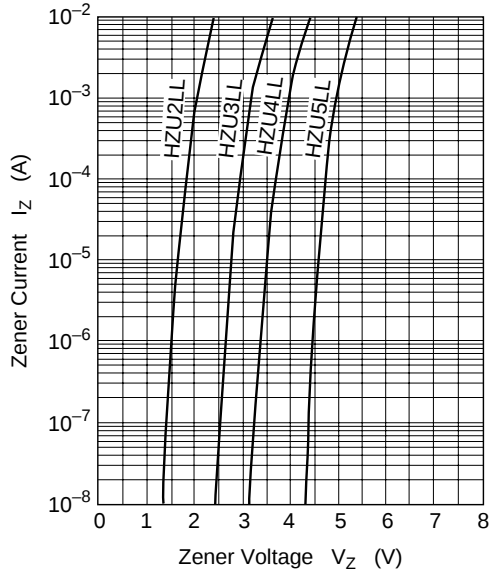


Fig.1 Zener current vs. Zener voltage

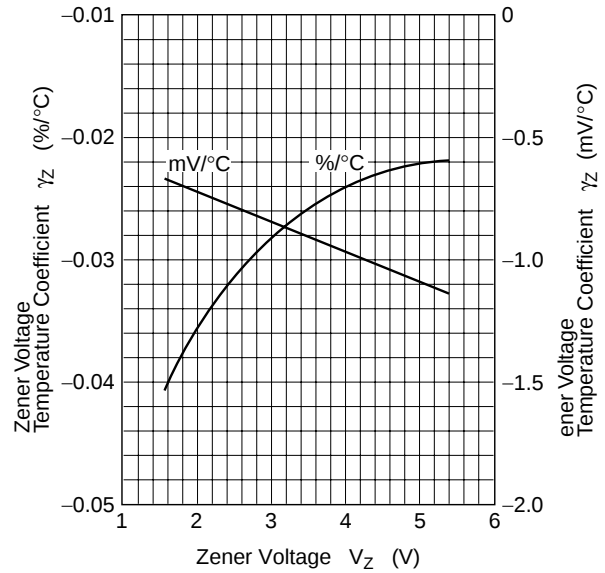


Fig.2 Temperature Coefficient vs. Zener voltage

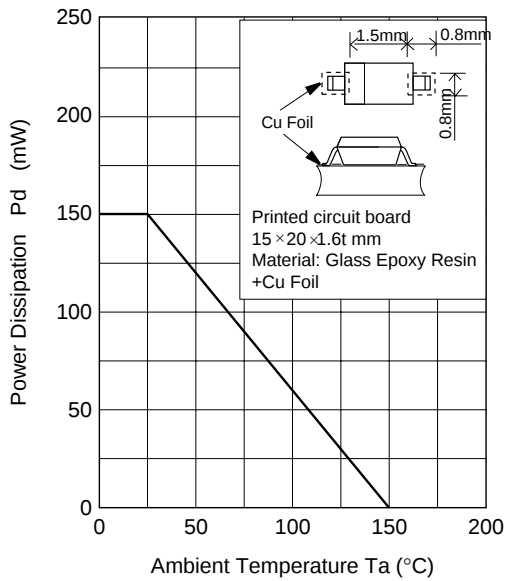
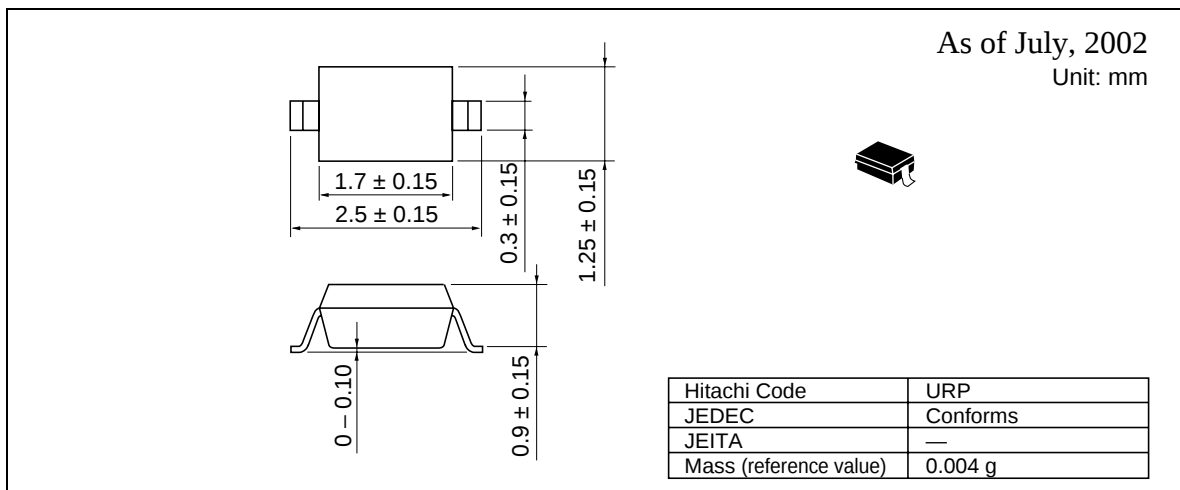


Fig.3 Power Dissipation vs. Ambient Temperature

HZU-LL Series

Package Dimensions



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