
HZU-LL Series

Silicon Epitaxial Planar Zener Diodes for Hard Knee Low Noise

HITACHI

ADE-208-236A (Z)
Rev. 1

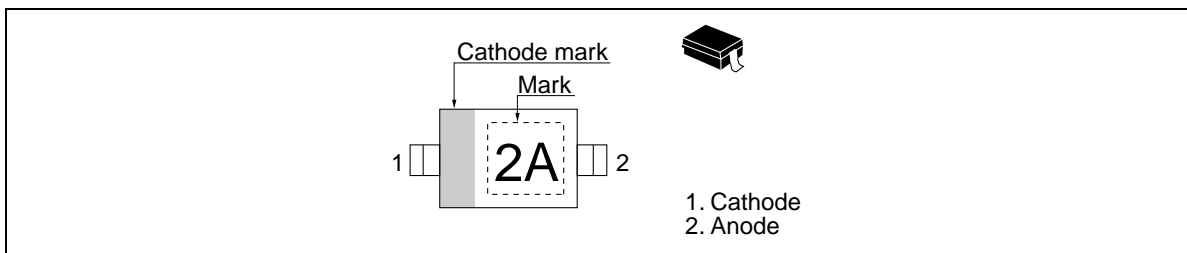
Features

- _ 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.
- _ V_z - I_z characteristics are semi-logarithmic linear from $I_z = 1\text{nA}$ 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

Outline



HZU-LL Series

Absolute Maximum Ratings (Ta = 25°C)

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

Electrical Characteristics (Ta = 25°C)

Type	Grade	V _z (V) ^{*1}		I _z (mA)	I _R (nA)		Z _{ZT} (Ω)		Z _{ZK} ^{*2} (kΩ)		^{*3} ΔV _z (V)
		Min	Max		Max	V _R (V)	Max	I _{ZT} (mA)	Typ	I _{ZK} (μA)	
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. ΔV_z = V_z (I_z = 0.5mA) - V_z (I_z = 0.05mA)
 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

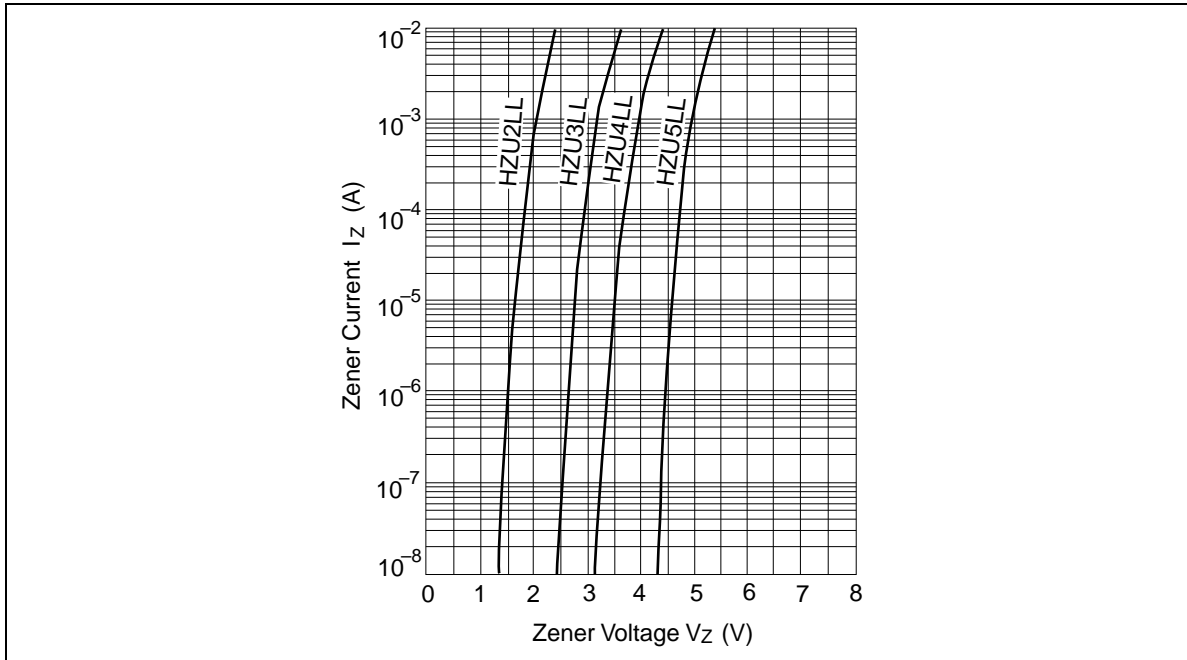


Fig.1 Zener current Vs. Zener voltage

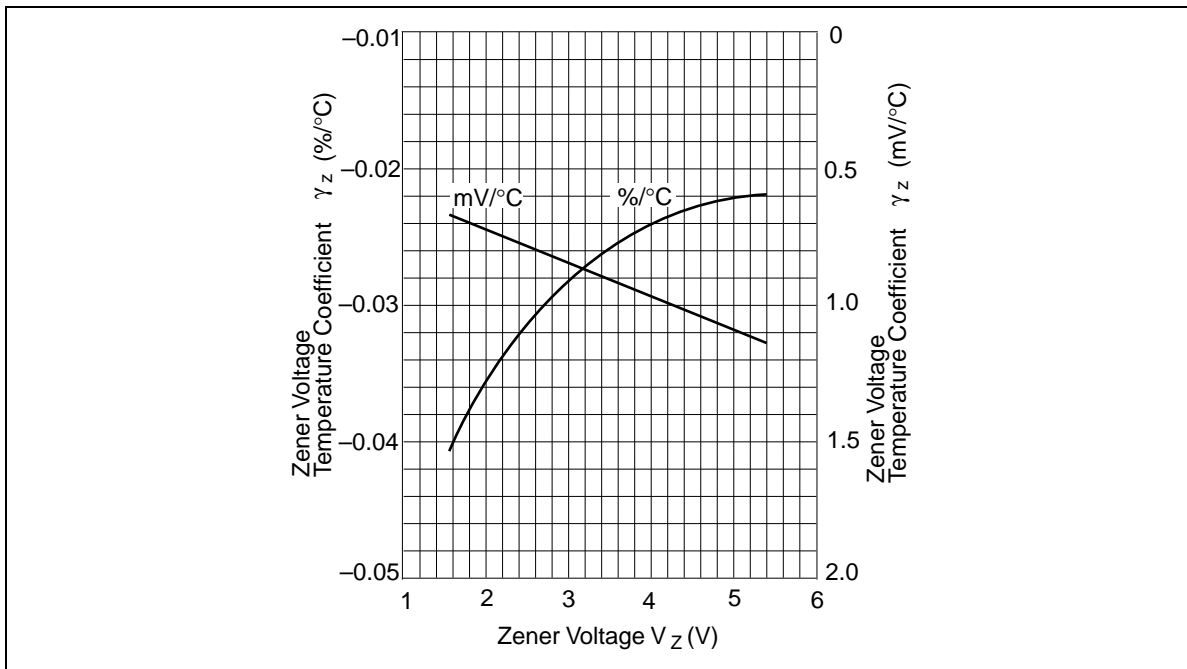


Fig.2 Temperature Coefficient Vs. Zener voltage

HZU-LL Series

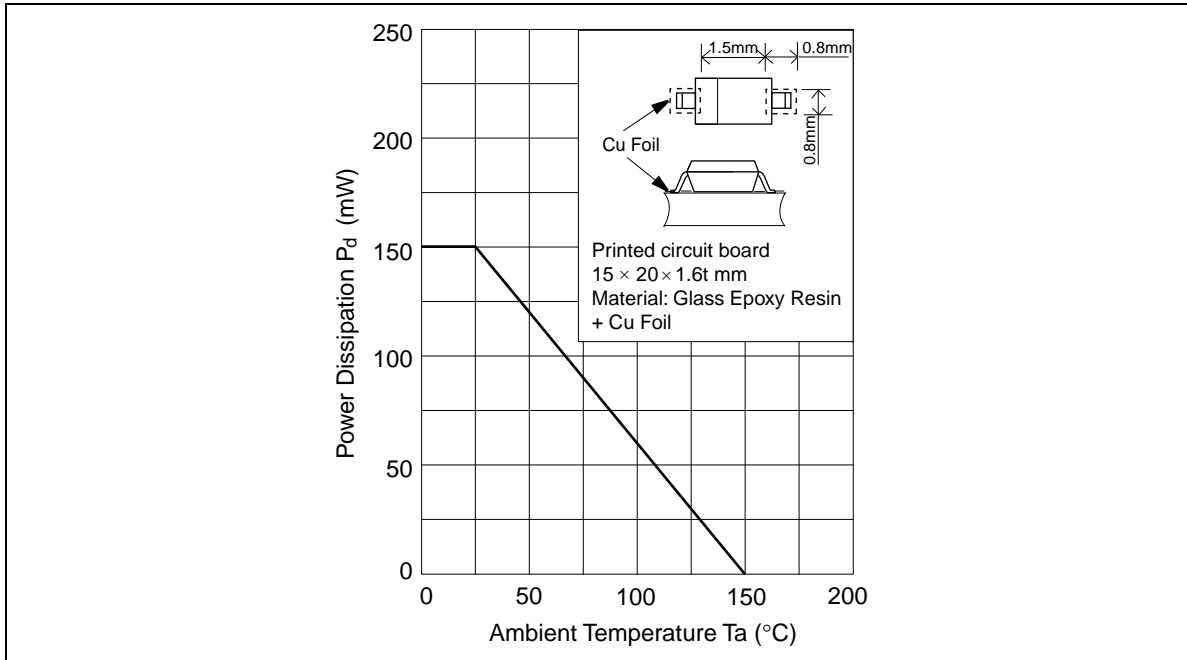


Fig.3 Power Dissipation Vs. Ambient Temperature