HZS-LL Series

Silicon Epitaxial Planar Zener Diode for Hard Knee Low Noise

REJ03G0167-0200Z
(Previous: ADE-208-122A)
Rev.2.00
Jan.06.2004

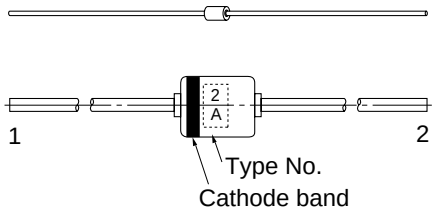
Features

- Vz-Iz characteristics are semilogarithmic linear from I_Z = 1nA to 1mA and have sharper breakdown knees in a low current region, and also lower V_Z temperature coefficients .
- Low dynamic impedance and low noise in the low current region (approximately 1/10 lower than the current zeners).
- Suitable for 5mm-pitch high speed automatic insertion.

Ordering Information

Type No.	Mark	Package Code
HZS-LL Series	Type No.	MHD

Pin Arrangement



1. Cathode
2. Anode

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

Electrical Characteristics

(Ta = 25°C)

		V_Z(V) *1			I_R(nA)		Z_{ZT}(Ω)		Z_{ZK}(kΩ)*2		ΔV_{Z1}(V) *3	ΔV_{Z2}(V) *3
Type	**Grade**	**Min**	**Max**	**I_Z(mA)**	**Max**	**V_R(V)**	**Max**	**I_{ZT}(mA)**	**Typ**	**I_{ZK}(μA)**	**Max**	**Max**
HZS2LL	A	1.6	2.0	0.5	100	0.5	350	0.5	(1.2)	50	0.5	0.6
	B	1.9	2.3									
	C	2.2	2.6									
HZS3LL	A	2.5	2.9	0.5	100	1.0	360	0.5	(1.2)	50	0.5	0.6
	B	2.8	3.2									
	C	3.1	3.5									
HZS4LL	A	3.4	3.8	0.5	100	2.0	370	0.5	(1.5)	50	0.5	0.6
	B	3.7	4.1									
	C	4.0	4.4									
HZS5LL	A	4.3	4.7	0.5	100	3.0	380	0.5	(1.5)	50	0.5	0.6
	B	4.6	5.0									
	C	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)
4. Type No. is as follows; HZS2ALL, HZS2BLL, HZS5CLL.

Main Characteristic

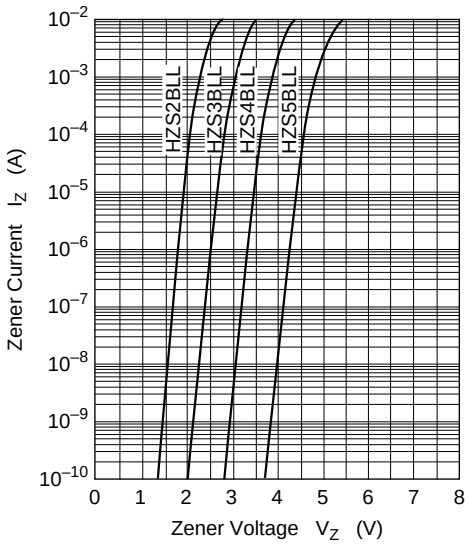


Fig.1 Zener current vs. Zener voltage

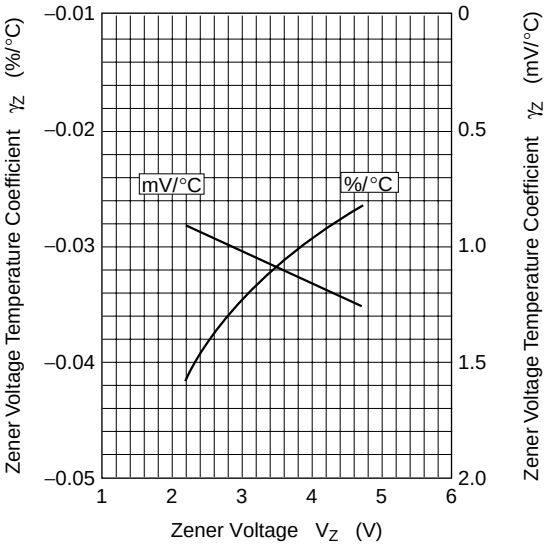


Fig.2 Temperature Coefficient vs. Zener voltage

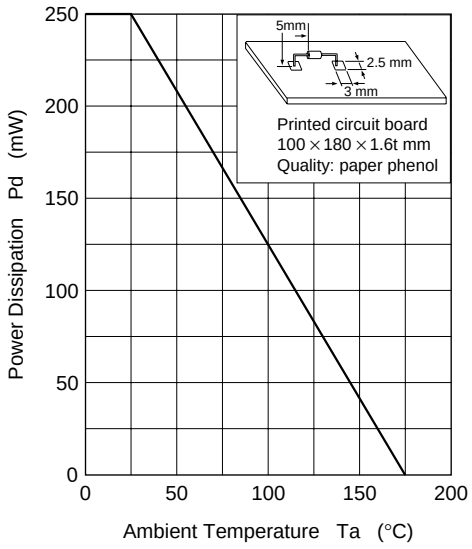
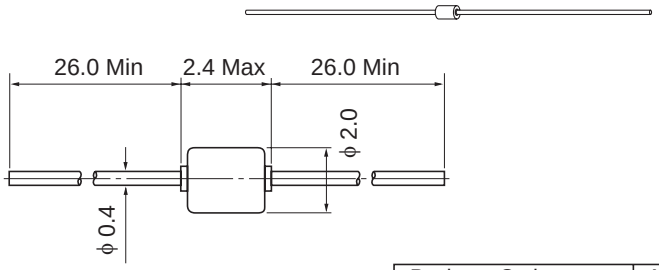


Fig.3 Power Dissipation vs. Ambient Temperature

Package Dimensions

As of January, 2003

Unit: mm



Package Code	MHD
JEDEC	Conforms
JEITA	—
Mass (reference value)	0.084 g

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