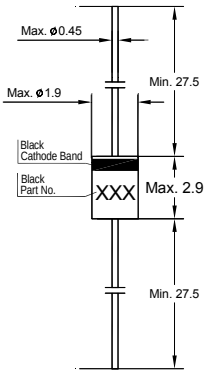
HZS Series

SILICON EPITAXIAL PLANER ZENER DIODES

for Stabilized Power Supply

Features

- Low leakage, low zener impedance and maximum power dissipation of 400 mW are ideally suited for stabilized power supply, etc.
- Wide spectrum from 1.6 V through 38 V of zener voltage provide flexible application.



Glass Case DO-34
Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	400	mW
Junction Temperature	T_j	200	°C
Storage Temperature Range	T_S	- 55 to + 175	°C

Characteristics at T_a = 25 °C

Type	Zener Voltage [1]			Reverse Current		Dynamic Resistance	
	V_Z (V)			I_R (µA)		r_d (Ω)	
	Min.	Max.	I_Z (mA)	Max.	V_R (V)	Max.	I_Z (mA)
HZS2A1	1.6	1.8	5	25	0.5	100	5
HZS2A2	1.7	1.9					
HZS2A3	1.8	2					
HZS2B1	1.9	2.1	5	5	0.5	100	5
HZS2B2	2	2.2					
HZS2B3	2.1	2.3					
HZS2C1	2.2	2.4					
HZS2C2	2.3	2.5					
HZS2C3	2.4	2.6					
HZS3A1	2.5	2.7	5	5	0.5	100	5
HZS3A2	2.6	2.8					
HZS3A3	2.7	2.9					
HZS3B1	2.8	3					
HZS3B2	2.9	3.1					
HZS3B3	3	3.2					
HZS3C1	3.1	3.3					
HZS3C2	3.2	3.4					
HZS3C3	3.3	3.5					

Characteristics at T_a = 25 °C

Type	Zener Voltage [1]			Reverse Current		Dynamic Resistance	
	V_Z (V)			I_R (μA)		r_d (Ω)	
	Min.	Max.	I_Z (mA)	Max.	V_R (V)	Max.	I_Z (mA)
HZS4A1	3.4	3.6	5	5	1	100	5
HZS4A2	3.5	3.7					
HZS4A3	3.6	3.8					
HZS4B1	3.7	3.9					
HZS4B2	3.8	4					
HZS4B3	3.9	4.1					
HZS4C1	4	4.2					
HZS4C2	4.1	4.3					
HZS4C3	4.2	4.4					
HZS5A1	4.3	4.5	5	5	1.5	100	5
HZS5A2	4.4	4.6					
HZS5A3	4.5	4.7					
HZS5B1	4.6	4.8					
HZS5B2	4.7	4.9					
HZS5B3	4.8	5					
HZS5C1	4.9	5.1					
HZS5C2	5	5.2					
HZS5C3	5.1	5.3					
HZS6A1	5.2	5.5	5	5	2	40	5
HZS6A2	5.3	5.6					
HZS6A3	5.4	5.7					
HZS6B1	5.5	5.8					
HZS6B2	5.6	5.9					
HZS6B3	5.7	6					
HZS6C1	5.8	6.1					
HZS6C2	6	6.3					
HZS6C3	6.1	6.4					
HZS7A1	6.3	6.6	5	1	3.5	15	5
HZS7A2	6.4	6.7					
HZS7A3	6.6	6.9					
HZS7B1	6.7	7					
HZS7B2	6.9	7.2					
HZS7B3	7	7.3					
HZS7C1	7.2	7.6					
HZS7C2	7.3	7.7					
HZS7C3	7.5	7.9					
HZS9A1	7.7	8.1	5	1	5	20	5
HZS9A2	7.9	8.3					
HZS9A3	8.1	8.5					
HZS9B1	8.3	8.7					
HZS9B2	8.5	8.9					
HZS9B3	8.7	9.1					
HZS9C1	8.9	9.3					
HZS9C2	9.1	9.5					
HZS9C3	9.3	9.7					

Characteristics at T_a = 25 °C

Type	Zener Voltage [1]			Reverse Current		Dynamic Resistance	
	V_Z (V)			I_R (µA)		r_d (Ω)	
	Min.	Max.	I_Z (mA)	Max.	V_R (V)	Max.	I_Z (mA)
HZS11A1	9.5	9.9	5	1	7.5	25	5
HZS11A2	9.7	10.1					
HZS11A3	9.9	10.3					
HZS11B1	10.2	10.6					
HZS11B2	10.4	10.8					
HZS11B3	10.7	11.1					
HZS11C1	10.9	11.3					
HZS11C2	11.1	11.6					
HZS11C3	11.4	11.9					
HZS12A1	11.6	12.1	5	1	9.5	35	5
HZS12A2	11.9	12.4					
HZS12A3	12.2	12.7					
HZS12B1	12.4	12.9					
HZS12B2	12.6	13.1					
HZS12B3	12.9	13.4					
HZS12C1	13.2	13.7					
HZS12C2	13.5	14					
HZS12C3	13.8	14.3					
HZS151	14.1	14.7	5	1	11	40	5
HZS152	14.5	15.1					
HZS153	14.9	15.5					
HZS161	15.3	15.9	5	1	12	45	5
HZS162	15.7	16.5					
HZS163	16.3	17.1					
HZS181	16.9	17.7	5	1	13	55	5
HZS182	17.5	18.3					
HZS183	18.1	19					
HZS201	18.8	19.7	2	1	15	60	2
HZS202	19.5	20.4					
HZS203	20.2	21.1					
HZS221	20.9	21.9	2	1	17	65	2
HZS222	21.6	22.6					
HZS223	22.3	23.3					
HZS241	22.9	24	2	1	19	70	2
HZS242	23.6	24.7					
HZS243	24.3	25.5					
HZS271	25.2	26.6	2	1	21	80	2
HZS272	26.2	27.6					
HZS273	27.2	28.6					
HZS301	28.2	29.6	2	1	23	100	2
HZS302	29.2	30.6					
HZS303	30.2	31.6					
HZS331	31.2	32.6	2	1	25	120	2
HZS332	32.2	33.6					
HZS333	33.2	34.6					
HZS361	34.2	35.7	2	1	27	140	2
HZS362	35.3	36.8					
HZS363	36.4	38					

[1] Tested with pulses tp = 20 ms.

Fig.1- Zener current versus zener voltage

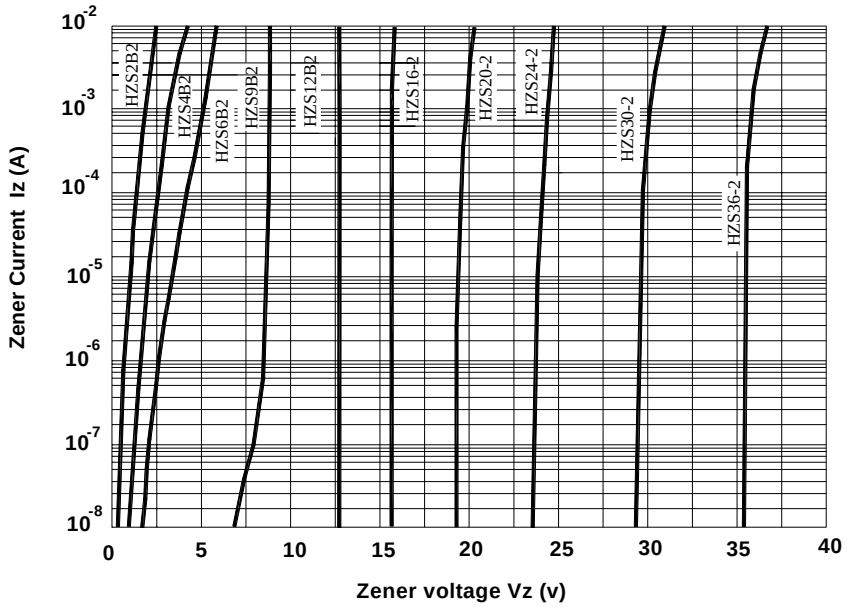


Fig.2 Temperature Coefficient Vs. Zener voltage

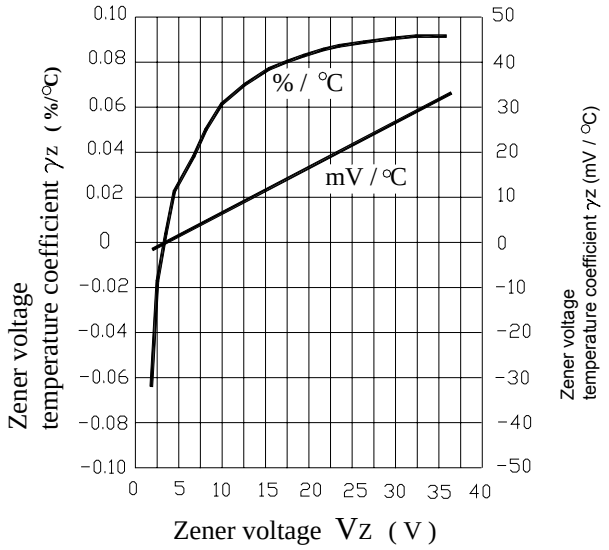


Fig. 3 Power dissipation Vs. Ambient temperature

