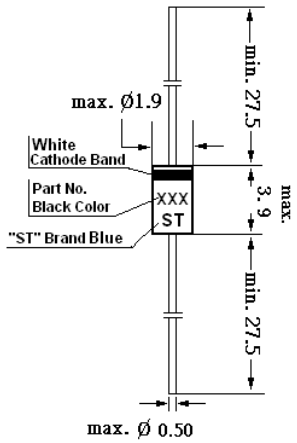
HZ Series

SILICON EPITAXIAL PLANER ZENER DIODES FOR STABILIZED POWER SUPPLY



Glass case JEDEC DO-35
Dimensions in mm

Features

- Low leakage, low zener impedance and maximum power dissipation of 500 mW are ideally suited for stabilized power supply, etc.
- Wide spectrum from 1.6V through 38V of zener voltage provide flexible application.

Absolute Maximum Ratings (Ta=25 ^{o}C)

	Symbol	Value	Unit
Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_j	175	^{O}C
Storage Temperature Range	T_S	-55 to +175	^{O}C

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Electrical Characteristics (Ta = 25°C)

TYPE	Zener Voltage V_Z (V) (1)			Reverse Current I_R (μA)		Dynamic Resistance r_d (Ω)	
	Min.	Max.	I_Z (mA)	Max.	V_R (V)	Max.	I_Z (mA)
HZ2A1	1.6	1.8	5	25	0.5	100	5
HZ2A2	1.7	1.9					
HZ2A3	1.8	2.0					
HZ2B1	1.9	2.1	5	5	0.5	100	5
HZ2B2	2.0	2.2					
HZ2B3	2.1	2.3					
HZ2C1	2.2	2.4					
HZ2C2	2.3	2.5					
HZ2C3	2.4	2.6					
HZ3A1	2.5	2.7	5	5	0.5	100	5
HZ3A2	2.6	2.8					
HZ3A3	2.7	2.9					
HZ3B1	2.8	3.0					
HZ3B2	2.9	3.1					
HZ3B3	3.0	3.2					
HZ3C1	3.1	3.3					
HZ3C2	3.2	3.4					
HZ3C3	3.3	3.5					
HZ4A1	3.4	3.6	5	5	1.0	100	5
HZ4A2	3.5	3.7					
HZ4A3	3.6	3.8					
HZ4B1	3.7	3.9					
HZ4B2	3.8	4.0					
HZ4B3	3.9	4.1					
HZ4C1	4.0	4.2					
HZ4C2	4.1	4.3					
HZ4C3	4.2	4.4					
HZ5A1	4.3	4.5	5	5	1.5	100	5
HZ5A2	4.4	4.6					
HZ5A3	4.5	4.7					
HZ5B1	4.6	4.8					
HZ5B2	4.7	4.9					
HZ5B3	4.8	5.0					
HZ5C1	4.9	5.1					
HZ5C2	5.0	5.2					
HZ5C3	5.1	5.3					
HZ6A1	5.2	5.5	5	5	2.0	40	5
HZ6A2	5.3	5.6					
HZ6A3	5.4	5.7					
HZ6B1	5.5	5.8					
HZ6B2	5.6	5.9					
HZ6B3	5.7	6.0					
HZ6C1	5.8	6.1					
HZ6C2	6.0	6.3					
HZ6C3	6.1	6.4					
HZ7A1	6.3	6.6	5	1	3.5	15	5
HZ7A2	6.4	6.7					
HZ7A3	6.6	6.9					
HZ7B1	6.7	7.0					
HZ7B2	6.9	7.2					
HZ7B3	7.0	7.3					

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Electrical Characteristics (Ta = 25°C)

TYPE	Zener Voltage V_Z (V)(1)			Reverse Current I_R (μA)		Dynamic Resistance r_d (Ω)	
	Min.	Max.	I_Z (mA)	Max.	V_R (V)	Max.	I_Z (mA)
HZ7C1	7.2	7.6	5	1	3.5	15	5
HZ7C2	7.3	7.7					
HZ7C3	7.5	7.9					
HZ9A1	7.7	8.1	5	1	5.0	20	5
HZ9A2	7.9	8.3					
HZ9A3	8.1	8.5					
HZ9B1	8.3	8.7					
HZ9B2	8.5	8.9					
HZ9B3	8.7	9.1					
HZ9C1	8.9	9.3					
HZ9C2	9.1	9.5					
HZ9C3	9.3	9.7					
HZ11A1	9.5	9.9	5	1	7.5	25	5
HZ11A2	9.7	10.1					
HZ11A3	9.9	10.3					
HZ11B1	10.2	10.6					
HZ11B2	10.4	10.8					
HZ11B3	10.7	11.1					
HZ11C1	10.9	11.3					
HZ11C2	11.1	11.6					
HZ11C3	11.4	11.9					
HZ12A1	11.6	12.1	5	1	9.5	35	5
HZ12A2	11.9	12.4					
HZ12A3	12.2	12.7					
HZ12B1	12.4	12.9					
HZ12B2	12.6	13.1					
HZ12B3	12.9	13.4					
HZ12C1	13.2	13.7					
HZ12C2	13.5	14.0					
HZ12C3	13.8	14.3					
HZ15-1	14.1	14.7	5	1	11.0	40	5
HZ15-2	14.5	15.1					
HZ15-3	14.9	15.5					
HZ16-1	15.3	15.9	5	1	12.0	45	5
HZ16-2	15.7	16.5					
HZ16-3	16.3	17.1					
HZ18-1	16.9	17.7	5	1	13.0	55	5
HZ18-2	17.5	18.3					
HZ18-3	18.1	19.0					
HZ20-1	18.8	19.7	2	1	15.0	60	2
HZ20-2	19.5	20.4					
HZ20-3	20.2	21.1					
HZ22-1	20.9	21.9	2	1	17	65	2
HZ22-2	21.6	22.6					
HZ22-3	22.3	23.3					
HZ24-1	22.9	24.0	2	1	19.0	70	2
HZ24-2	23.6	24.7					
HZ24-3	24.3	25.5					

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TYPE	Zener Voltage			Reverse Current		Dynamic Resistance	
	V_Z (V)(1)			I_R (μA)		r_d (Ω)	
	Min.	Max.	I_Z (mA)	Max.	V_R (V)	Max.	I_Z (mA)
HZ27-1	25.2	26.6	2	1	21.0	80	2
HZ27-2	26.2	27.6					
HZ27-3	27.2	28.6					
HZ30-1	28.2	29.6	2	1	23.0	100	2
HZ30-2	29.2	30.6					
HZ30-3	30.2	31.6					
HZ33-1	31.2	32.6	2	1	25.0	120	2
HZ33-2	32.2	33.6					
HZ33-3	33.2	34.6					
HZ36-1	34.2	35.7	2	1	27.0	140	2
HZ36-2	35.3	36.8					
HZ36-3	36.4	38.0					

Note. 1) Tested with DC.

2) Tested with pulses tp = 20 ms.

Fig.1- Zener current versus zener voltage

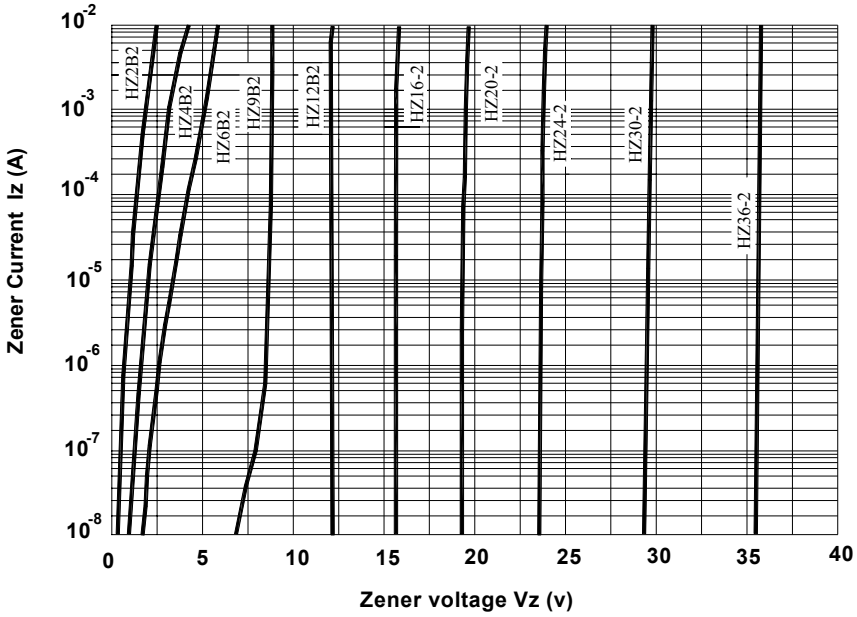

Fig.2 Temperature Coefficient Vs. Zener voltage

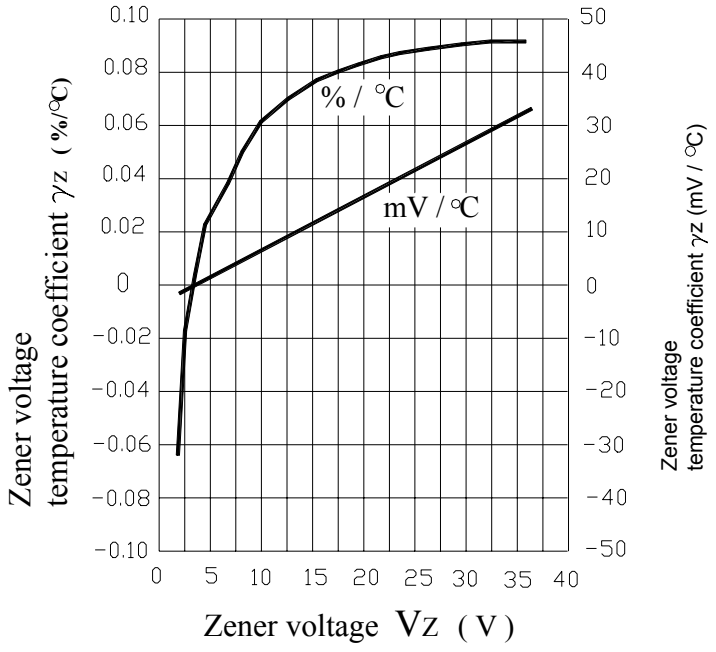

Fig. 3 Power dissipation Vs. Ambient temperature