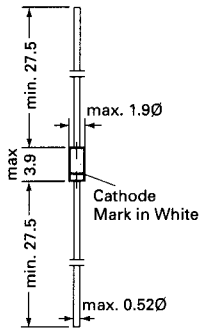
HS Series
SILICON PLANAR ZENER DIODE

Silicon Planar Zener Diodes



Glass case JEDEC DO-35

Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Power Dissipation at T_{amb} = 25 °C	P_{tot}	500[1)]	mW
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_S	-55 to + 175	°C
[1)] Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case			

Characteristics at T_{amb} = 25 °C

	Symbol	Min.	Typ.	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	-	-	0.3[1)]	K/mW
Forward Voltage at I_F = 100 mA	V_F	-	-	1	V
[1)] Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.					

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Characteristics at Tj = 25 °C

TYPE	Zener Voltage			Dynamic Resistance		Reverse Leakage Current (I_R at V_R)	
DO-35	Min. (V)	Max (V)	I_{ZT} (mA)	Ohm at I_{ZT}	I_{ZT} (mA)	I_R (uA) Max.	V_R (V)
2.0 HS	1.88	2.20	5	100	5	120	0.5
2.0 HSA	1.88	2.10					
2.0 HSB	2.02	2.20					
2.2 HS	2.12	2.41	5	100	5	120	0.7
2.2 HSA	2.12	2.30					
2.2 HSB	2.22	2.41					
2.4 HS	2.33	2.63	5	100	5	120	1.0
2.4 HSA	2.33	2.52					
2.4 HSB	2.43	2.63					
2.7 HS	2.54	2.91	5	110	5	100	1.0
2.7 HSA	2.54	2.75					
2.7 HSB	2.69	2.91					
3.0 HS	2.85	3.22	5	120	5	50	1.0
3.0 HSA	2.85	3.07					
3.0 HSB	3.01	3.22					
3.3 HS	3.16	3.53	5	120	5	20	1.0
3.3 HSA	3.16	3.38					
3.3 HSB	3.32	3.53					
3.6 HS	3.47	3.83	5	120	5	10	1.0
3.6 HSA	3.47	3.68					
3.6 HSB	3.62	3.83					
3.9 HS	3.77	4.14	5	120	5	5	1.0
3.9 HSA	3.77	3.98					
3.9 HSB	3.92	4.14					
4.3 HS	4.05	4.53	5	120	5	5	1.0
4.3 HSA	4.05	4.26					
4.3 HSB	4.20	4.40					
4.3 HSC	4.34	4.53					
4.7 HS	4.47	4.91	5	100	5	5	1.0
4.7 HSA	4.47	4.65					
4.7 HSB	4.59	4.77					
4.7 HSC	4.71	4.91					
5.1 HS	4.85	5.35	5	70	5	5	1.5
5.1 HSA	4.85	5.03					
5.1 HSB	4.97	5.18					
5.1 HSC	5.12	5.35					
5.6 HS	5.29	5.88	5	40	5	5	2.5
5.6 HSA	5.29	5.52					
5.6 HSB	5.46	5.70					
5.6 HSC	5.64	5.88					
6.2 HS	5.81	6.40	5	30	5	5	3.0
6.2 HSA	5.81	6.06					
6.2 HSB	5.99	6.24					
6.2 HSC	6.16	6.40					

1) Tested with pulse tp = 40 ms.

2) Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

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TYPE	Zener Voltage			Dynamic Resistance		Reverse Leakage Current (I_R at V_R)	
DO-35	Min. (V)	Max (V)	I_{ZT} (mA)	Ohm at I_{ZT}	I_{ZT} (mA)	I_R (uA) Max.	V_R (V)
6.8 HS	6.32	6.97	5	25	5	2	3.5
6.8 HSA	6.32	6.59					
6.8 HSB	6.52	6.79					
6.8 HSC	6.70	6.97					
7.5 HS	6.88	7.64	5	25	5	0.5	4.0
7.5 HSA	6.88	7.19					
7.5 HSB	7.11	7.41					
7.5 HSC	7.33	7.64					
8.2 HS	7.56	8.41	5	20	5	0.5	5.0
8.2 HSA	7.56	7.90					
8.2 HSB	7.82	8.15					
8.2 HSC	8.07	8.41					
9.1 HS	8.33	9.29	5	20	5	0.5	6.0
9.1 HSA	8.33	8.70					
9.1 HSB	8.61	8.99					
9.1 HSC	8.89	9.29					
10 HS	9.19	10.30	5	20	5	0.2	7.0
10 HSA	9.19	9.59					
10 HSB	9.48	9.90					
10 HSC	9.82	10.30					
11 HS	10.18	11.26	5	20	5	0.2	8.0
11 HSA	10.18	10.63					
11 HSB	10.50	10.95					
11 HSC	10.82	11.26					
12 HS	11.13	12.30	5	25	5	0.2	9.0
12 HSA	11.13	11.63					
12 HSB	11.50	11.92					
12 HSC	11.80	12.30					
13 HS	12.18	13.62	5	25	5	0.2	10
13 HSA	12.18	12.71					
13 HSB	12.59	13.16					
13 HSC	13.03	13.62					
15 HS	13.48	15.02	5	25	5	0.2	11
15 HSA	13.48	14.09					
15 HSB	13.95	14.56					
15 HSC	14.42	15.02					
16 HS	14.87	16.50	5	25	5	0.2	12
16 HSA	14.87	15.50					
16 HSB	15.33	15.96					
16 HSC	15.79	16.50					
18 HS	16.34	18.30	5	30	5	0.2	13
18 HSA	16.34	17.06					
18 HSB	16.90	17.67					
18 HSC	17.51	18.30					

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TYPE	Zener Voltage			Dynamic Resistance		Reverse Leakage Current (I_R at V_R)	
DO-35	Min. (V)	Max (V)	I_{ZT} (mA)	Ohm at I_{ZT}	I_{ZT} (mA)	I_R (uA) Max.	V_R (V)
20 HS	18.14	20.45	5	30	5	0.2	15
20 HSA	18.14	18.96					
20 HSB	18.80	19.68					
20 HSC	19.52	20.45					
22 HS	20.23	22.61	5	30	5	0.2	17
22 HSA	20.23	21.08					
22 HSB	20.76	21.65					
22 HSC	21.22	22.09					
22 HSD	21.68	22.61					
24 HS	22.26	24.81	5	35	5	0.2	19
24 HSA	22.26	23.12					
24 HSB	22.75	23.73					
24 HSC	23.29	24.27					
24 HSD	23.81	24.81					
27 HS	24.26	27.64	5	45	5	0.2	21
27 HSA	24.26	25.52					
27 HSB	24.97	26.26					
27 HSC	25.63	26.95					
27 HSD	26.29	27.64					
30 HS	26.99	30.51	5	55	5	0.2	23
30 HSA	26.99	28.39					
30 HSB	27.70	29.13					
30 HSC	28.36	29.82					
30 HSD	29.02	30.51					
33 HS	29.68	33.11	5	65	5	0.2	25
33 HSA	29.68	31.22					
33 HSB	30.32	31.88					
33 HSC	30.90	32.50					
33 HSD	31.49	33.11					
36 HS	32.14	35.77	5	75	5	0.2	27
36 HSA	32.14	33.79					
36 HSB	32.79	34.49					
36 HSC	33.40	35.13					
36 HSD	34.01	35.77					
39 HS	34.68	38.52	5	85	5	0.2	30
39 HSA	34.68	36.47					
39 HSB	35.36	37.19					
39 HSC	36.00	37.85					
39 HSD	36.63	38.52					

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