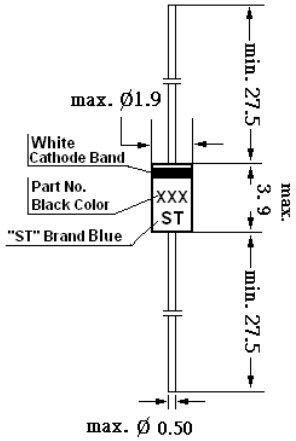
HS Series

SILICON PLANAR ZENER DIODES



Glass case JEDEC DO-35
Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	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

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	0.3 [1)]	K/mW
[1)] Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.			

Characteristics at T_a = 25 °C

Type	Zener Voltage			Dynamic Resistance		Reverse Leakage Current (I_R at V_R)	
	Min. (V)	Max. (V)	I_{ZT} (mA)	Ohm at I_{ZT}	I_{ZT} (mA)	I_R (µA) Max.	V_R (V)
2V0HS	1.88	2.2	5	100	5	120	0.5
2V0HSA	1.88	2.1					
2V0HSB	2.02	2.2					
2V2HS	2.12	2.41	5	100	5	120	0.7
2V2HSA	2.12	2.3					
2V2HSB	2.22	2.41					
2V4HS	2.33	2.63	5	100	5	120	1
2V4HSA	2.33	2.52					
2V4HSB	2.43	2.63					
2V7HS	2.54	2.91	5	110	5	100	1
2V7HSA	2.54	2.75					
2V7HSB	2.69	2.91					
3V0HS	2.85	3.22	5	120	5	50	1
3V0HSA	2.85	3.07					
3V0HSB	3.01	3.22					
3V3HS	3.16	3.53	5	120	5	20	1
3V3HSA	3.16	3.38					
3V3HSB	3.32	3.53					
3V6HS	3.47	3.83	5	120	5	10	1
3V6HSA	3.47	3.68					
3V6HSB	3.62	3.83					
3V9HS	3.77	4.14	5	120	5	5	1
3V9HSA	3.77	3.98					
3V9HSB	3.92	4.14					
4V3HS	4.05	4.53	5	120	5	5	1
4V3HSA	4.05	4.26					
4V3HSB	4.2	4.4					
4V3HSC	4.34	4.53					
4V7HS	4.47	4.91	5	100	5	5	1
4V7HSA	4.47	4.65					
4V7HSB	4.59	4.77					
4V7HSC	4.71	4.91					
5V1HS	4.85	5.35	5	70	5	5	1.5
5V1HSA	4.85	5.03					
5V1HSB	4.97	5.18					
5V1HSC	5.12	5.35					

[1] Tested with pulse tp = 20 ms
[2] Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

Characteristics at T_a = 25 °C

Type	Zener Voltage			Dynamic Resistance		Reverse Leakage Current (I_R at V_R)	
	Min. (V)	Max. (V)	I_{ZT} (mA)	Ohm at I_{ZT}	I_{ZT} (mA)	I_R (µA) Max.	V_R (V)
5V6HS	5.29	5.88	5	40	5	5	2.5
5V6HSA	5.29	5.52					
5V6HSB	5.46	5.7					
5V6HSC	5.64	5.88					
6V2HS	5.81	6.4	5	30	5	5	3
6V2HSA	5.81	6.06					
6V2HSB	5.99	6.24					
6V2HSC	6.16	6.4					
6V8HS	6.32	6.97	5	25	5	2	3.5
6V8HSA	6.32	6.59					
6V8HSB	6.52	6.79					
6V8HSC	6.7	6.97					
7V5HS	6.88	7.64	5	25	5	0.5	4
7V5HSA	6.88	7.19					
7V5HSB	7.11	7.41					
7V5HSC	7.33	7.64					
8V2HS	7.56	8.41	5	20	5	0.5	5
8V2HSA	7.56	7.9					
8V2HSB	7.82	8.15					
8V2HSC	8.07	8.41					
9V1HS	8.33	9.29	5	20	5	0.5	6
9V1HSA	8.33	8.7					
9V1HSB	8.61	8.99					
9V1HSC	8.89	9.29					
10HS	9.19	10.3	5	20	5	0.2	7
10HSA	9.19	9.59					
10HSB	9.48	9.9					
10HSC	9.82	10.3					
11HS	10.18	11.26	5	20	5	0.2	8
11HSA	10.18	10.63					
11HSB	10.5	10.95					
11HSC	10.82	11.26					
12HS	11.13	12.3	5	25	5	0.2	9
12HSA	11.13	11.63					
12HSB	11.5	11.92					
12HSC	11.8	12.3					
13HS	12.18	13.62	5	25	5	0.2	10
13HSA	12.18	12.71					
13HSB	12.59	13.16					
13HSC	13.03	13.62					

[1] Tested with pulse tp = 20 ms

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

Characteristics at T_a = 25 °C

Type	Zener Voltage			Dynamic Resistance		Reverse Leakage Current (I_R at V_R)	
	Min. (V)	Max. (V)	I_{ZT} (mA)	Ohm at I_{ZT}	I_{ZT} (mA)	I_R (µA) Max.	V_R (V)
15HS	13.48	15.02	5	25	5	0.2	11
15HSA	13.48	14.09					
15HSB	13.95	14.56					
15HSC	14.42	15.02					
16HS	14.87	16.5	5	25	5	0.2	12
16HSA	14.87	15.5					
16HSB	15.33	15.96					
16HSC	15.79	16.5					
18HS	16.34	18.30	5	30	5	0.2	13
18HSA	16.34	17.06					
18HSB	16.9	17.67					
18HSC	17.51	18.3					
20HS	18.14	20.45	5	30	5	0.2	15
20HSA	18.14	18.96					
20HSB	18.8	19.68					
20HSC	19.52	20.45					
22HS	20.23	22.61	5	30	5	0.2	17
22HSA	20.23	21.08					
22HSB	20.76	21.65					
22HSC	21.22	22.09					
22HSD	21.68	22.61					
24HS	22.26	24.81	5	35	5	0.2	19
24HSA	22.26	23.12					
24HSB	22.75	23.73					
24HSC	23.29	24.27					
24HSD	23.81	24.81					
27HS	24.26	27.64	5	45	5	0.2	21
27HSA	24.26	25.52					
27HSB	24.97	26.26					
27HSC	25.63	26.95					
27HSD	26.29	27.64					
30HS	26.99	30.51	5	55	5	0.2	23
30HSA	26.99	28.39					
30HSB	27.7	29.13					
30HSC	28.36	29.82					
30HSD	29.02	30.51					

[1] Tested with pulse tp = 20 ms

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

Characteristics at T_a = 25 °C

Type	Zener Voltage			Dynamic Resistance		Reverse Leakage Current (I_R at V_R)	
	Min. (V)	Max. (V)	I_{ZT} (mA)	Ohm at I_{ZT}	I_{ZT} (mA)	I_R (µA) Max.	V_R (V)
33HS	29.68	33.11	5	65	5	0.2	25
33HSA	29.68	31.22					
33HSB	30.32	31.88					
33HSC	30.9	32.5					
33HSD	31.49	33.11					
36HS	32.14	35.77	5	75	5	0.2	27
36HSA	32.14	33.79					
36HSB	32.79	34.49					
36HSC	33.4	35.13					
36HSD	34.01	35.77					
39HS	34.68	38.52	5	85	5	0.2	30
39HSA	34.68	36.47					
39HSB	35.36	37.19					
39HSC	36	37.85					
39HSD	36.63	38.52					

[1] Tested with pulse tp = 20 ms

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

