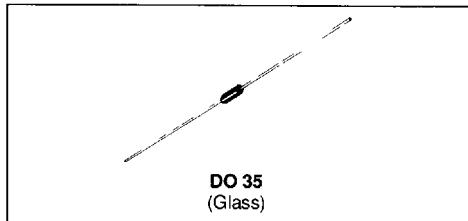




S G S-THOMSON

TEMPERATURE COMPENSATED ZENER DIODES

- SEMICONDUCTOR MATERIAL : SILICON
- TECHNOLOGY : LOCAL EPITAXY + GUARD RING



ABSOLUTE RATINGS (limiting values)

Symbol	Parameter	Value	Unit
P _{tot}	Power Dissipation*	0.5	W
T _{stg} T _J	Storage and Junction Temperature Range	- 65 to 175 - 55 to 175	°C °C
T _L	Maximum Lead Temperature for Soldering during 10s at 4mm from Case	230	°C

THERMAL RESISTANCE

Symbol	Parameter	Value	Unit
R _{th(j, a)}	Junction-ambient*	300	°C/W

ELECTRICAL CHARACTERISTICS (T_{amb} = 25°C unless otherwise specified)

Types	V _{ZT} typ. (V)	R _{ZT} @ I _{ZT} max. (Ω)	(mA)	Test Temperatures			ΔV _Z ** max. (mV)	αV _Z (10 ⁻⁶ /°C)
				(°C)	(°C)	(°C)		
1N 935	9	20	7.5	0	+ 25	+ 75	67	100
1N 936	9	20	7.5	0	+ 25	+ 75	33	50
1N 937	9	20	7.5	0	+ 25	+ 75	13	20
1N 938	9	20	7.5	0	+ 25	+ 75	6	10
1N 939	9	20	7.5	0	+ 25	+ 75	3	5
1N 935 A	9	20	7.5	- 55	0	+ 25	139	100
1N 936 A	9	20	7.5	- 55	0	+ 25	69	50
1N 937 A	9	20	7.5	- 55	0	+ 25	27	20
1N 938 A	9	20	7.5	- 55	0	+ 25	13	10
1N 939 A	9	20	7.5	- 55	0	+ 25	7	5
1N 935 B	9	20	7.5	- 55	0	+ 25	+ 75	184
1N 936 B	9	20	7.5	- 55	0	+ 25	+ 75	92
1N 937 B	9	20	7.5	- 55	0	+ 25	+ 75	37
1N 938 B	9	20	7.5	- 55	0	+ 25	+ 75	18
1N 939 B	9	20	7.5	- 55	0	+ 25	+ 75	5

* On infinite heatsink with d = 4mm

** The voltage reference diodes are characterized by the box method. The maximum allowable voltage change ΔV_Z is guaranteed any two temperature within the range. Tests are performed at the indicated temperatures and the specified current

1N 935,A,B → 1N 939,A,B

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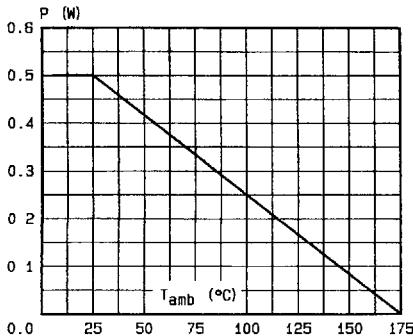


Fig.1 - Power dissipation versus ambient temperature.

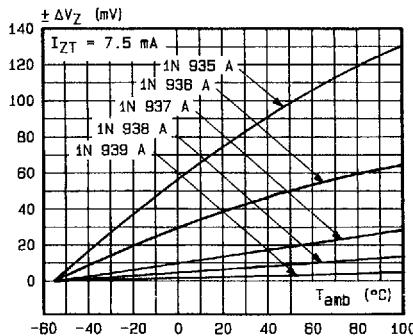


Fig.2b - Regulation voltage variation versus ambient temperature.

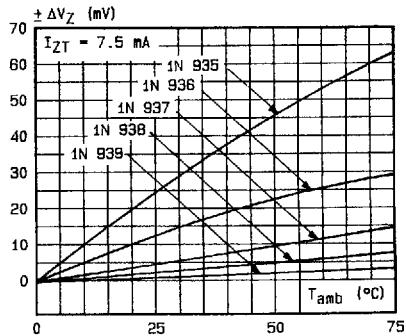


Fig.2a - Regulation voltage variation versus ambient temperature.

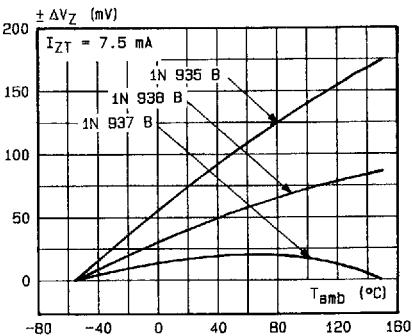
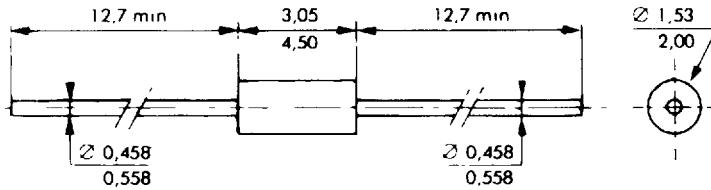


Fig.2c - Regulation voltage variation versus ambient temperature.

PACKAGE MECHANICAL DATA

DO 35 Glass



Cooling method : by convection and conduction

Marking : clear, ring at cathode end.

Weight : 0.15g