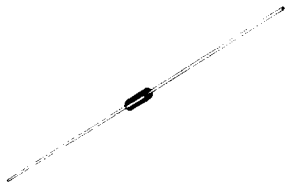
SGS-THOMSON MICROELECTRONICS

1N 4565,A→1N 4584,A

TEMPERATURE COMPENSATED ZENER DIODES

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



DO 35
(Glass)

ABSOLUTE RATINGS (limiting values)

Symbol	Parameter		Value	Unit
P_{tot}	Power Dissipation*	T_{amb} = 50°C	0.4	W
T_{stg} T_j	Storage and Junction Temperature Range		– 65 to 175 – 65 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 (°C)				ΔV_Z** max. (mV)	αV_Z (10^{-6}/°C)
1N 4565	6.4	200	0.5		0	+ 25	+ 75	48	100
1N 4566	6.4	200	0.5		0	+ 25	+ 75	24	50
1N 4567	6.4	200	0.5		0	+ 25	+ 75	10	20
1N 4568	6.4	200	0.5		0	+ 25	+ 75	5	10
1N 4569	6.4	200	0.5		0	+ 25	+ 75	2	5
1N 4565 A	6.4	200	0.5	– 55	0	+ 25	+ 75	+ 100	99	100
1N 4566 A	6.4	200	0.5	– 55	0	+ 25	+ 75	+ 100	50	50
1N 4567 A	6.4	200	0.5	– 55	0	+ 25	+ 75	+ 100	20	20
1N 4568 A	6.4	200	0.5	– 55	0	+ 25	+ 75	+ 100	10	10
1N 4569 A	6.4	200	0.5	– 55	0	+ 25	+ 75	+ 100	5	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.

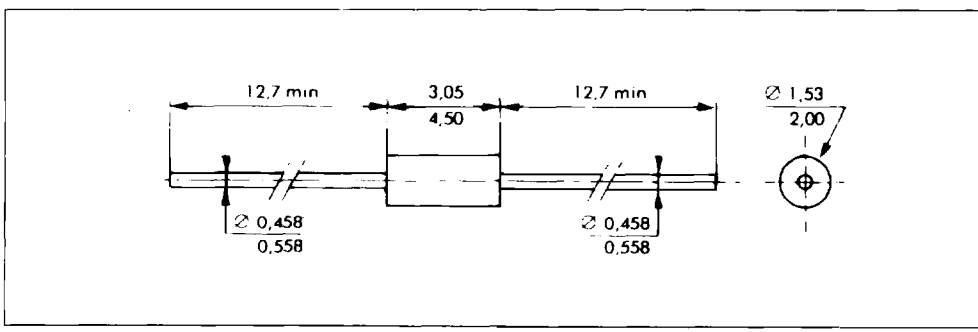
ELECTRICAL CHARACTERISTICS (T_{amb} = 25°C unless otherwise specified) (continued)

Types	V_{ZT} typ. (V)	R_{ZT} @ I_{ZT} max. (Ω)	(mA)	Test Temperatures (°C)					ΔV_Z** max. (mV)	αV_Z (10^{-6}/°C)
1N 4570	6.4	100	1		0	+ 25	+ 75		48	100
1N 4571	6.4	100	1		0	+ 25	+ 75		24	50
1N 4572	6.4	100	1		0	+ 25	+ 75		10	20
1N 4573	6.4	100	1		0	+ 25	+ 75		5	10
1N 4574	6.4	100	1		0	+ 25	+ 75		2	5
1N 4570 A	6.4	100	1	− 55	0	+ 25	+ 75	+ 100	99	100
1N 4571 A	6.4	100	1	− 55	0	+ 25	+ 75	+ 100	50	50
1N 4572 A	6.4	100	1	− 55	0	+ 25	+ 75	+ 100	20	20
1N 4573 A	6.4	100	1	− 55	0	+ 25	+ 75	+ 100	10	10
1N 4574 A	6.4	100	1	− 55	0	+ 25	+ 75	+ 100	5	5
1N 4575	6.4	50	2		0	+ 25	+ 75		48	100
1N 4576	6.4	50	2		0	+ 25	+ 75		24	50
1N 4577	6.4	50	2		0	+ 25	+ 75		10	20
1N 4578	6.4	50	2		0	+ 25	+ 75		5	10
1N 4579	6.4	50	2		0	+ 25	+ 75		2	5
1N 4575 A	6.4	50	2	− 55	0	+ 25	+ 75	+ 100	99	100
1N 4576 A	6.4	50	2	− 55	0	+ 25	+ 75	+ 100	50	50
1N 4577 A	6.4	50	2	− 55	0	+ 25	+ 75	+ 100	20	20
1N 4578 A	6.4	50	2	− 55	0	+ 25	+ 75	+ 100	10	10
1N 4579 A	6.4	50	2	− 55	0	+ 25	+ 75	+ 100	5	5
1N 4580	6.4	25	4		0	+ 25	+ 75		48	100
1N 4581	6.4	25	4		0	+ 25	+ 75		24	50
1N 4582	6.4	25	4		0	+ 25	+ 75		10	20
1N 4583	6.4	25	4		0	+ 25	+ 75		5	10
1N 4584	6.4	25	4		0	+ 25	+ 75		2	5
1N 4580 A	6.4	25	4	− 55	0	+ 25	+ 75	+ 100	99	100
1N 4581 A	6.4	25	4	− 55	0	+ 25	+ 75	+ 100	50	50
1N 4582 A	6.4	25	4	− 55	0	+ 25	+ 75	+ 100	20	20
1N 4583 A	6.4	25	4	− 55	0	+ 25	+ 75	+ 100	10	10
1N 4584 A	6.4	25	4	− 55	0	+ 25	+ 75	+ 100	5	5

** 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.

PACKAGE MECHANICAL DATA

DO 35 Glass



Cooling method : by convection and conduction.
Marking : clear, ring at cathode end.
Weight : 0.15g.

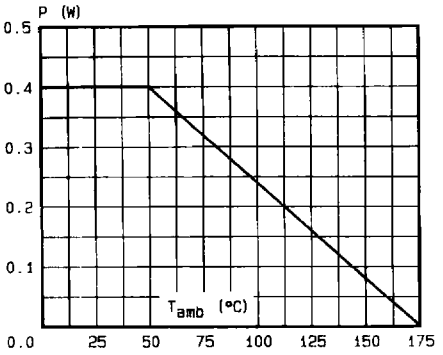


Fig.1 - Power dissipation versus ambient temperature.

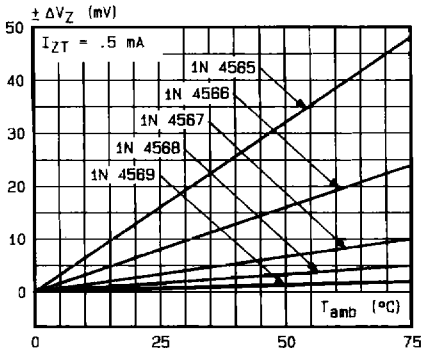


Fig.2a - Regulation voltage variation versus ambient temperature.

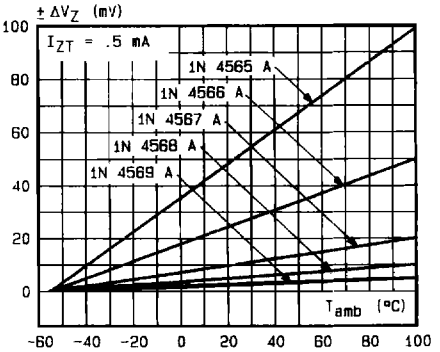


Fig.2b - Regulation voltage variation versus ambient temperature.

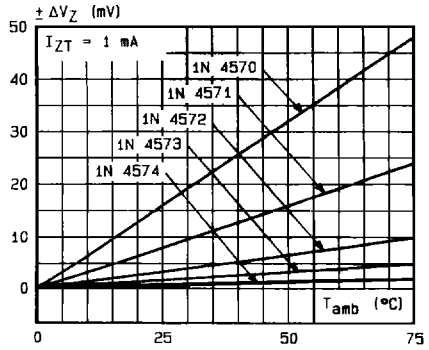


Fig.2c - Regulation voltage variation versus ambient temperature.

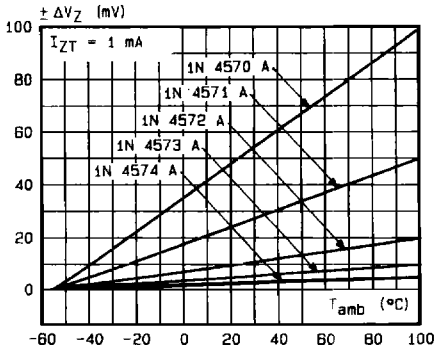


Fig.2d - Regulation voltage variation versus ambient temperature.

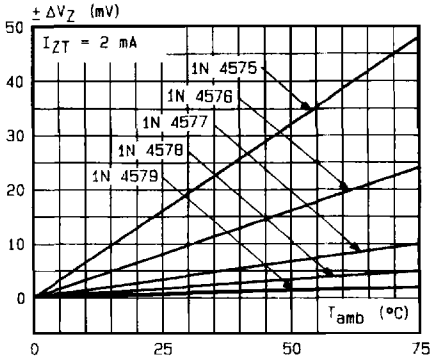


Fig.2e - Regulation voltage variation versus ambient temperature.

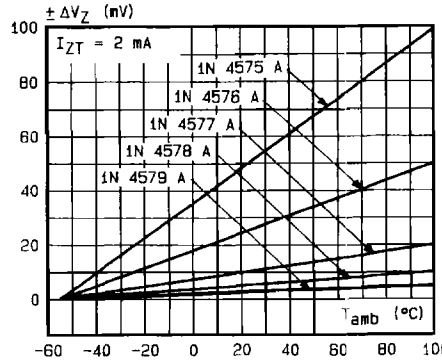


Fig.2f - Regulation voltage variation versus ambient temperature.

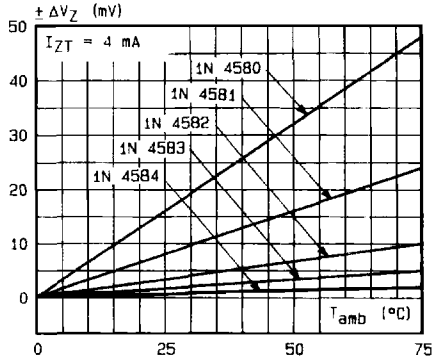


Fig.2g - Regulation voltage variation versus ambient temperature.

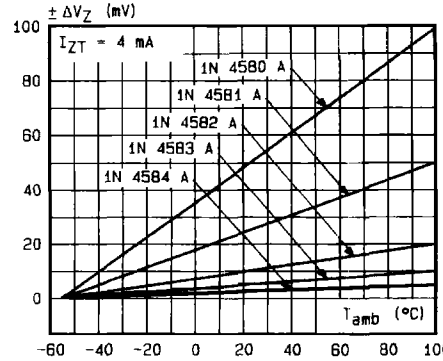


Fig.2h - Regulation voltage variation versus ambient temperature.