SGS-THOMSON MICROELECTRONICS

T-11-13

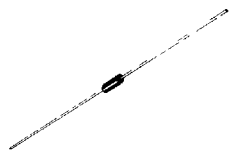
1N 4765,A→1N 4774,A

S G S-THOMSON

TEMPERATURE COMPENSATED ZENER DIODES

NEW SERIE

- 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 4765	9.1	350 0 5		0	+ 25	+ 75		68	100
1N 4766	9 1	350 0.5		0	+ 25	+ 75		34	50
1N 4767	9 1	350 0 5		0	+ 25	+ 75		14	20
1N 4768	9 1	350 0 5		0	+ 25	+ 75		7	10
1N 4769	9.1	350 0.5		0	+ 25	+ 75		3	5
1N 4765 A	9.1	350 0 5	– 55	0	+ 25	+ 75	+ 100	141	100
1N 4766 A	9.1	350 0.5	– 55	0	+ 25	+ 75	+ 100	70	50
1N 4767 A	9.1	350 0 5	– 55	0	+ 25	+ 75	+ 100	28	20
1N 4768 A	9.1	350 0.5	– 55	0	+ 25	+ 75	+ 100	14	10
1N 4769 A	9 1	350 0 5	– 55	0	+ 25	+ 75	+ 100	7	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

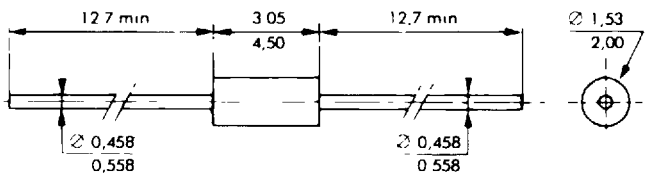
ELECTRICAL CHARACTERISTICS (T_{amb} = 25°C unless otherwise specified) (continued)

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 4770	9 1	350	0 5		0	+ 25	+ 75		68	100
1N 4771	9 1	350	0 5		0	+ 25	+ 75		34	50
1N 4772	9 1	350	0 5		0	+ 25	+ 75		14	20
1N 4773	9 1	350	0 5		0	+ 25	+ 75		7	10
1N 4774	9 1	350	0.5		0	+ 25	+ 75		3	5
1N 4770 A	9 1	350	0.5	− 55	0	+ 25	+ 75	+ 100	141	100
1N 4771 A	9.1	350	0.5	− 55	0	+ 25	+ 75	+ 100	70	50
1N 4772 A	9 1	350	0 5	− 55	0	+ 25	+ 75	+ 100	28	20
1N 4773 A	9 1	350	0.5	− 55	0	+ 25	+ 75	+ 100	14	10
1N 4774 A	9 1	350	0.5	− 55	0	+ 25	+ 75	+ 100	7	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

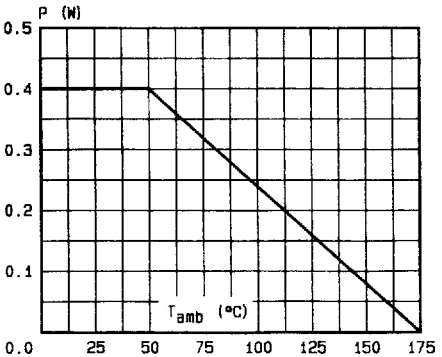


Fig.1 - Power dissipation versus ambient temperature.

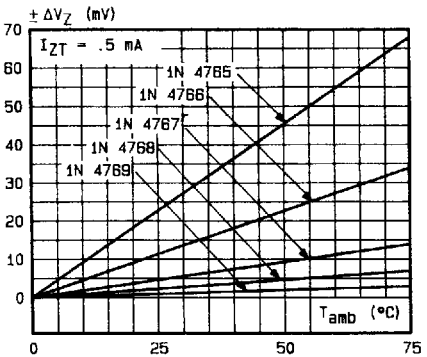


Fig.2a - Regulation voltage variation versus ambient temperature.

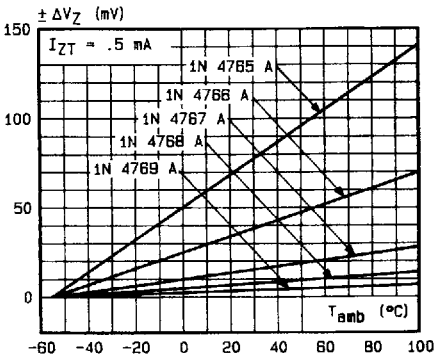


Fig.2b - Regulation voltage variation versus ambient temperature.

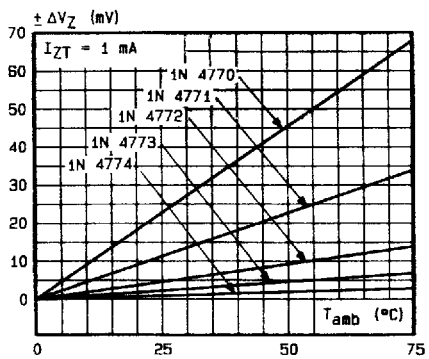


Fig.2c - Regulation voltage variation versus ambient temperature.

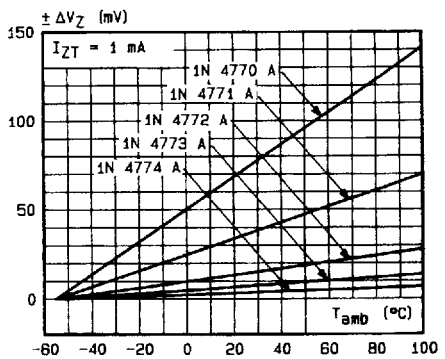


Fig.2d - Regulation voltage variation versus ambient temperature.