1N 4775,A→1N 4784,A

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 to 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 4775	8.5	200	0.5		0	+ 25	+ 75		64	100
1N 4776	8.5	200	0.5		0	+ 25	+ 75		32	50
1N 4777	8.5	200	0.5		0	+ 25	+ 75		13	20
1N 4778	8.5	200	0.5		0	+ 25	+ 75		6	10
1N 4779	8.5	200	0.5		0	+ 25	+ 75		3	5
1N 4775 A	8.5	200	0.5	– 55	0	+ 25	+ 75	+ 100	132	100
1N 4776 A	8.5	200	0.5	– 55	0	+ 25	+ 75	+ 100	66	50
1N 4777 A	8.5	200	0.5	– 55	0	+ 25	+ 75	+ 100	26	20
1N 4778 A	8.5	200	0.5	– 55	0	+ 25	+ 75	+ 100	13	10
1N 4779 A	8.5	200	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.

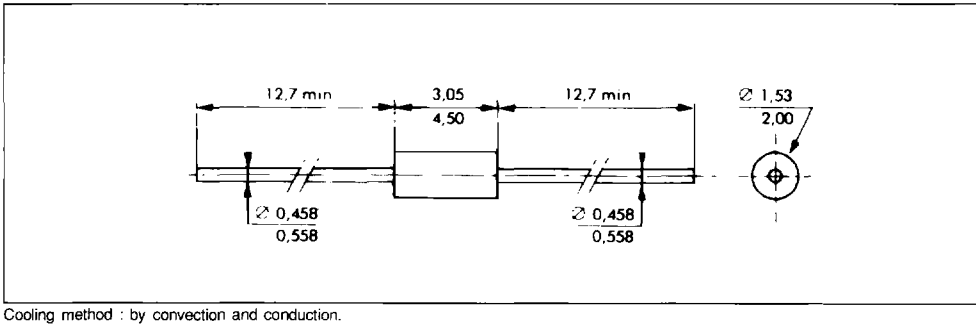
ELECTRICAL CHARACTERISTICS (continued)

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 4780	8.5	100	1		0	+ 25	+ 75		64	100
1N 4781	8.5	100	1		0	+ 25	+ 75		32	50
1N 4782	8.5	100	1		0	+ 25	+ 75		13	20
1N 4783	8.5	100	1		0	+ 25	+ 75		6	10
1N 4784	8.5	100	1		0	+ 25	+ 75		3	5
1N 4780 A	8.5	100	1	− 55	0	+ 25	+ 75	+ 100	132	100
1N 4781 A	8.5	100	1	− 55	0	+ 25	+ 75	+ 100	66	50
1N 4782 A	8.5	100	1	− 55	0	+ 25	+ 75	+ 100	26	20
1N 4783 A	8.5	100	1	− 55	0	+ 25	+ 75	+ 100	13	10
1N 4784 A	8.5	100	1	− 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.

PACKAGE MECHANICAL DATA

DO 35 Glass



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

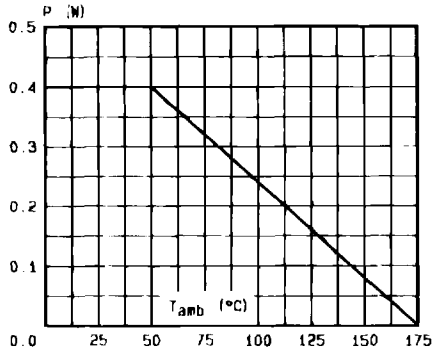


Fig.1 - Power dissipation versus ambient temperature.

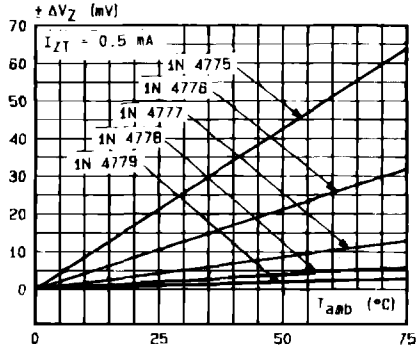


Fig.2a - Regulation voltage variation versus ambient temperature.

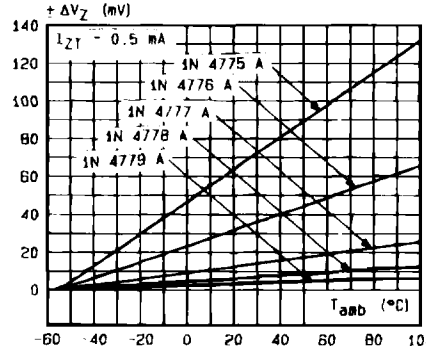


Fig.2b - Regulation voltage variation versus ambient temperature.

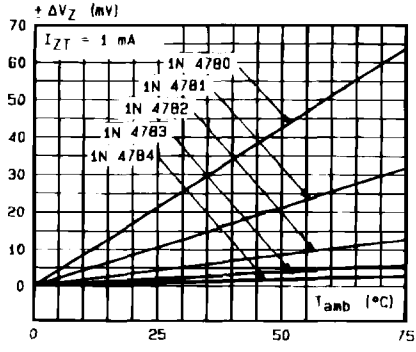


Fig.2c - Regulation voltage variation versus ambient temperature.

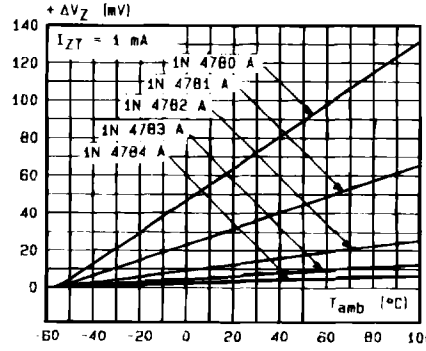


Fig.2d Regulation voltage variation versus ambient temperature.