

# 1N4775 thru 1N4784A

**TEMPERATURE COMPENSATED ZENER REFERENCE DIODES**  
**8.5 VOLT NOMINAL ZENER VOLTAGE +/- 5%**  
**LOW CURRENT RANGE: 0.5 and 1.0 mA**

**MAXIMUM RATINGS \***

Operating Temperature	-55 °C to +200 °C
Storage Temperature	-55 °C to +200 °C
DC Power Dissipation	500 mW at 50 °C
Power Derating	3.33 mW/°C above 50 °C

**\* ELECTRICAL CHARACTERISTICS @ 25 °C, unless otherwise specified**

JEDEC TYPE NUMBERS	ZENER VOLTAGE Vz @ Iz1	ZENER TEST CURRENT Iz1	MAXIMUM ZENER IMPEDANCE (Note 1) Zz1	VOLTAGE TEMPERATURE STABILITY (Note 2) ΔVz1 MAXIMUM	TEMPERATURE RANGE	EFFECTIVE TEMPERATURE COEFFICIENT
	Volts	mA	Ohms	mV	°C	%/°C
1N4775	8.5	0.5	200	84	0 to +75	.01
1N4775A	8.5	0.5	200	132	-55 to +100	.01
1N4776	8.5	0.5	200	32	0 to +75	.008
1N4776A	8.5	0.5	200	68	-55 to +100	.008
1N4777	8.5	0.5	200	13	0 to +75	.002
1N4777A	8.5	0.5	200	26	-55 to +100	.002
1N4778	8.5	0.5	200	6.4	0 to +75	.001
1N4778A	8.5	0.5	200	13	-55 to +100	.001
1N4779	8.5	0.5	200	3.2	0 to +75	.0005
1N4779A	8.5	0.5	200	6.6	-55 to +100	.0005
1N4780	8.5	1.0	100	84	0 to +75	.01
1N4780A	8.5	1.0	100	132	-55 to +100	.01
1N4781	8.5	1.0	100	32	0 to +75	.008
1N4781A	8.5	1.0	100	68	-55 to +100	.008
1N4782	8.5	1.0	100	13	0 to +75	.002
1N4782A	8.5	1.0	100	26	-55 to +100	.002
1N4783	8.5	1.0	100	6.4	0 to +75	.001
1N4783A	8.5	1.0	100	13	-55 to +100	.001
1N4784	8.5	1.0	100	3.2	0 to +75	.0005
1N4784A	8.5	1.0	100	6.6	-55 to +100	.0005

\* JEDEC Registered Data.

**NOTE 1** Zener impedance is derived by superimposing on Iz1 a 60 Hz rms a.c. current equal to 10% of Iz1.

**NOTE 2** The maximum allowable change observed over the entire temperature range (i.e., the diode voltage will not exceed the specified mV at any discrete temperature between the established limits.

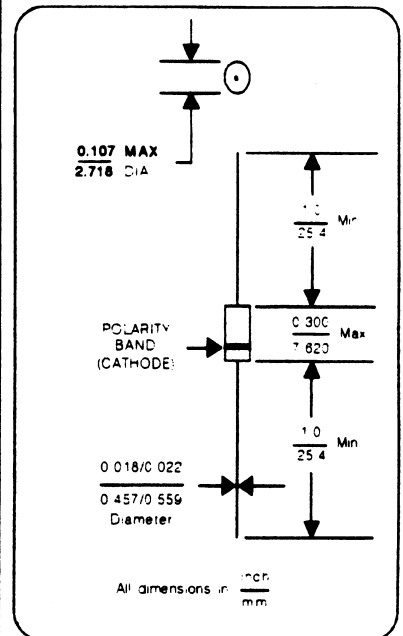


FIGURE 1

**DESIGN DATA**

**CASE:** Hermetically sealed glass case. DO-7 Outline.

**LEAD MATERIAL:** Copper Clad Steel.

**LEAD FINISH:** Tin Plate

**THERMAL RESISTANCE:**  
250 °C/w (Typical)  
junction to ambient.

**POLARITY:** Diode to be operated with the banded (cathode) end positive with respect to the opposite end

**WEIGHT:** 0.2 Grams

**MOUNTING POSITION:** Any

