imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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- 8.5 VOLT NOMINAL ZENER VOLTAGE ± 5%
- TEMPERATURE COMPENSATED ZENER REFERENCE DIODES
- LOW CURRENT RANGE: 0.5 AND 1.0 mA
- METALLURGICALLY BONDED
- DOUBLE PLUG CONSTRUCTION

MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C Storage Temperature: -65°C to +175°C DC Power Dissipation: 500mW @ +50°C Power Derating: 4 mW / °C above +50°C

REVERSE LEAKAGE CURRENT

 $I_{B} = 10 \ \mu A @ 25^{\circ}C \& V_{B} = 6 \ Vdc$

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise speci1/2ed.

JEDEC TYPE NUMBER	ZENER VOLTAGE ^V z ^{@ I} ZT (Note 3)	ZENER TEST CURRENT ^I ZT	MAXIMUM DYNAMIC IMPEDANCE Z _{ZT} (Note 1)	VOLTAGE TEMPERATURE STABILITY ^{3V} ZT (Note 2)	TEMPERATURE RANGE	EFFECTIVE TEMPERATURE COEFFICIENT
	VOLTS	mA	OHMS	mV	°C	% / °C
1N4775	8.5	0.5	200	64	0 to + 75	0.01
1N4775A	8.5	0.5	200	132	-55 to +100	0.01
1N4776	8.5	0.5	200	32	0 to + 75	0.005
1N4776A	8.5	0.5	200	66	-55 to +100	0.005
1N4777	8.5	0.5	200	13	0 to + 75	0.002
1N4777A	8.5	0.5	200	26	-55 to +100	0.002
1N4778	8.5	0.5	200	6.4	0 to + 75	0.001
1N4778A	8.5	0.5	200	13	-55 to +100	0.001
1N4779	8.5	0.5	200	3.2	0 to + 75	0.0005
1N4779A	8.5	0.5	200	6.6	-55 to +100	0.0005
1N4780	8.5	1.0	100	64	0 to + 75	0.01
1N4780A	8.5	1.0	100	132	-55 to +100	0.01
1N4781 1N4781A 1N4782 1N4782A	8.5 8.5 8.5 8.5 8.5	1.0 1.0 1.0 1.0	100 100 100 100	32 66 13 26	0 to + 75 -55 to +100 0 to + 75 -55 to +100	0.005 0.005 0.002 0.002
1N4783	8.5	1.0	100	6.4	0 to + 75	0.001
1N4783A	8.5	1.0	100	13	-55 to +100	0.001
1N4784	8.5	1.0	100	3.2	0 to + 75	0.0005
1N4784A	8.5	1.0	100	6.6	-55 to +100	0.0005

NOTE 1 Zener impedance is derived by superimposing on I_{7T} A 60Hz rms a.c. current equal to 10% of IZT.

- The maximum allowable change observed over the entire temperature range i.e., NOTE 2 the diode voltage will not exceed the speci¹/₂ed mV at any discrete temperature between the established limits, per JEDEC standard No.5.
- **NOTE 3** Zener voltage range equals 8.5 volts \pm 5%.



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1N4775 thru 1N4784A



FIGURE 1

DESIGN DATA

CASE: Hermetically sealed glass case. DO - 35 outline.

LEAD MATERIAL: Copper clad steel.

LEAD FINISH: Tin / Lead

POLARITY: Diode to be operated with the banded (cathode) end positive.

MOUNTING POSITION: ANY.

1N4775 thru 1N4784A





TYPICAL CHANGE OF TEMPERATURE COEFFICIENT WITH CHANGE IN OPERATING CURRENT