



# ADR1000 Data Sheet Limit Revision

# Data Sheet Specification Comparison

## REV B

## REV C

Data Sheet

ADR1000

Data Sheet

ADR1000

### SPECIFICATIONS

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#### ELECTRICAL CHARACTERISTICS

T<sub>A</sub> = 25°C, unless otherwise noted.

*Table 2.*

Parameter	Symbol	Test Conditions/Comments	Min	Typ	Max	Unit	
ZENER REFERENCE VOLTAGE (V <sub>BZ1</sub> + V <sub>BEQ1</sub> ) <sup>1</sup>	V <sub>REF</sub>	Zener current (I <sub>BZ1</sub> ) = 5 mA, CQ1 current (I <sub>CQ1</sub> ) = 100 μA	6.57	6.62	6.67	V	
		I <sub>BZ1</sub> = 1 mA, I <sub>CQ1</sub> = 100 μA	6.54	6.59	6.64	V	
ZENER LEAKAGE CURRENT	I <sub>Z</sub>	Zener voltage (V <sub>Z</sub> ) = 5 V		1	1.5	μA	
ZENER REFERENCE NOISE (V <sub>Z</sub> + V <sub>BEQ1</sub> )	e <sub>N p-p</sub>	I <sub>BZ1</sub> = 5 mA, I <sub>CQ1</sub> = 100 μA, 0.1 Hz < f < 10 Hz		0.14		ppm p-p	
					0.9		μV p-p
					300		nV/√Hz
					30		nV/√Hz
	e <sub>N</sub>	I <sub>BZ1</sub> = 5 mA, I <sub>CQ1</sub> = 100 μA					
		f = 0.1 Hz				nV/√Hz	
		f = 10 Hz				nV/√Hz	
		f = 1 kHz				nV/√Hz	
HEATER RESISTANCE	R <sub>HTR</sub>	Heater current (I <sub>HEATER</sub> ) = 1 mA	230	242	255	Ω	
BREAKDOWN VOLTAGE	BV <sub>HTR</sub>	I <sub>HEATER</sub> < 10 μA to Pin 4 (I <sub>ZSET</sub> )	70	80		V	
			BV <sub>CEO</sub>	I <sub>CQ1</sub> < 10 μA	15	18	V
			BV <sub>CEO</sub>	CQ2 current (I <sub>CQ2</sub> ) < 10 μA	28	39	V
CURRENT GAIN	h <sub>FE_Q1</sub>	I <sub>CQ1</sub> = 100 μA, V <sub>CE</sub> = 600 mV	280	400	520	A/A	
			h <sub>FE_Q2</sub>	I <sub>CQ1</sub> = 100 μA, V <sub>CE</sub> = 600 mV	190	300	410
TEMPERATURE COEFFICIENT	TCV <sub>REF</sub>	Using the circuit shown in Figure 9 with the recommended layout		<0.2		ppm/°C	

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CURRENT GAIN	h <sub>FE_Q1</sub>	I <sub>CQ1</sub> = 100 μA, V <sub>CE</sub> = 600 mV	280	400	620	A/A	
			h <sub>FE_Q2</sub>	I <sub>CQ1</sub> = 100 μA, V <sub>CE</sub> = 600 mV	190	300	410
TEMPERATURE COEFFICIENT	TCV <sub>REF</sub>	Using the circuit shown in Figure 9 with the recommended layout		<0.2		ppm/°C	