

PERFORMANCE SPECIFICATIONS

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply voltage	V _{DD}		-0.3		+3.6	V
Storage temperature	T _S		-20		+85	°C
Overpressure	P _{max}			6		bar
Maximum Soldering Temperature	T _{max}	40 sec max			250	°C
ESD rating		Human Body Model	-2		+2	kV
Latch up		JEDEC standard No 78	-100		+100	mA

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Operating Supply voltage	V _{DD}		1.5	3.0	3.6	V
Operating Temperature	T		-40	+25	+85	°C
Supply current (1 sample per sec.)	I _{DD}	OSR	8192	20.09		μA
			4096	10.05		
			2048	5.02		
			1024	2.51		
			512	1.26		
		256	0.63			
Peak supply current		during conversion		1.25		mA
Standby supply current		at 25°C (V _{DD} = 3.0 V)		0.01	0.1	μA
VDD Capacitor		from VDD to GND	100	470		nF

ANALOG DIGITAL CONVERTER (ADC)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Output Word				24		bit
Conversion time	t _c	OSR	8192	16.44		ms
			4096	8.22		
			2048	4.13		
			1024	2.08		
			512	1.06		
		256	0.54			

PERFORMANCE SPECIFICATIONS (CONTINUED)

PRESSURE OUTPUT CHARACTERISTICS ($V_{DD} = 3.0\text{ V}$, $T = 25\text{ }^{\circ}\text{C}$ UNLESS OTHERWISE NOTED)

Parameter	Conditions		Min.	Typ.	Max.	Unit
Operating Pressure Range	P_{range}		300		1200	mbar
Extended Pressure Range	P_{ext}	Linear Range of ADC	10		2000	mbar
Relative Accuracy, autozero at one pressure point (1)	700...1000 mbar at 25°C			±0.1		mbar
Absolute Accuracy, no autozero	300..1200 mbar at 25°C 300..1200mbar, -20..85°C		-2 -4		+2 +4	mbar
Resolution RMS	OSR	8192		0.016		mbar
		4096		0.021		
		2048		0.028		
		1024		0.039		
		512		0.062		
		256		0.11		
Maximum error with supply voltage	$V_{DD} = 1.5\text{ V} \dots 3.6\text{ V}$			±0.5		mbar
Long-term stability				±1		mbar/yr
Reflow soldering impact	IPC/JEDEC J-STD-020C (See application note AN808 on http://meas-spec.com)			-1		mbar
Recovering time after reflow (2)				3		days

(1) Characterized value performed on qualification devices

(2) Recovering time at least 66% of the reflow impact

TEMPERATURE OUTPUT CHARACTERISTICS ($V_{DD} = 3\text{ V}$, $T = 25\text{ }^{\circ}\text{C}$ UNLESS OTHERWISE NOTED)

Parameter	Conditions		Min.	Typ.	Max.	Unit
Absolute Accuracy	at 25°C -20..85°C		-1 -2		+1 +2	°C
Maximum error with supply voltage	$V_{DD} = 1.5\text{ V} \dots 3.6\text{ V}$			±0.3		°C
Resolution RMS	OSR	8192		0.002		°C
		4096		0.003		
		2048		0.004		
		1024		0.006		
		512		0.009		
		256		0.012		