

**PERFORMANCE SPECIFICATIONS**

**ABSOLUTE MAXIMUM RATINGS**

Parameter	Symbol	Conditions	Min.	Typ.	Max	Unit
Supply voltage	V <sub>DD</sub>		-0.3		+4.0	V
Storage temperature	T <sub>S</sub>		-40		+125	°C
Overpressure	P <sub>max</sub>				6	bar
Maximum Soldering Temperature	T <sub>max</sub>	40 sec max			250	°C
ESD rating		Human Body Model	-4		+4	kV
Latch up		JEDEC standard No 78	-100		+100	mA

**ELECTRICAL CHARACTERISTICS**

Parameter	Symbol	Conditions	Min.	Typ.	Max	Unit
Operating Supply voltage	V <sub>DD</sub>		1.8	3.0	3.6	V
Operating Temperature	T		-40	+25	+85	°C
Supply current (1 sample per sec.)	I <sub>DD</sub>	OSR 4096		12.5		µA
		2048		6.3		
		1024		3.2		
		512		1.7		
		256		0.9		
Peak supply current		during conversion		1.4		mA
Standby supply current		at 25°C		0.02	0.14	µA
VDD Capacitor		From VDD to GND	100			nF

**ANALOG DIGITAL CONVERTER (ADC)**

Parameter	Symbol	Conditions	Min.	Typ.	Max	Unit
Output Word				24		bit
Conversion time	t <sub>c</sub>	OSR 4096	7.40	8.22	9.04	ms
		2048	3.72	4.13	4.54	
		1024	1.88	2.08	2.28	
		512	0.95	1.06	1.17	
		256	0.48	0.54	0.60	

## PERFORMANCE SPECIFICATIONS (CONTINUED)

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

Parameter	Conditions		Min.	Typ.	Max	Unit
Operating Pressure Range	$P_{\text{range}}$	Full Accuracy	300		1100	mbar
Extended Pressure Range	$P_{\text{ext}}$	Linear Range of ADC	10		1200	mbar
Total Error band, no autozero	at $25^\circ\text{C}$ , 700..1100 mbar		-1.5		+1.5	mbar
	at $0..50^\circ\text{C}$ , 300..1100 mbar		-2.0		+2.0	
	at $-20..85^\circ\text{C}$ , 300..1100 mbar		-3.5		+3.5	
Total Error band, autozero at one pressure point	at $25^\circ\text{C}$ , 700..1100 mbar		-0.5		+0.5	mbar
	at $0..50^\circ\text{C}$ , 300..1100 mbar		-1.0		+1.0	
	at $-20..85^\circ\text{C}$ , 300..1100 mbar		-2.5		+2.5	
Maximum error with supply voltage	$V_{DD} = 1.8\text{ V} \dots 3.6\text{ V}$		-2.5		+2.5	mbar
Resolution RMS	OSR	4096		0.024		mbar
		2048		0.036		
		1024		0.054		
		512		0.084		
		256		0.130		
Long-term stability				$\pm 1$		mbar/yr
Reflow soldering impact	IPC/JEDEC J-STD-020C (See application note AN808)			+0.4		mbar
Recovering time after reflow (1)				7		days

(1) Time to recovering at least 66% of the reflow impact

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

Parameter	Conditions		Min.	Typ.	Max	Unit
Absolute Accuracy	at $25^\circ\text{C}$		-0.8		+0.8	$^\circ\text{C}$
	$-20..85^\circ\text{C}$		-2.0		+2.0	
	$-40..85^\circ\text{C}$		-4.0		+4.0	
Maximum error with supply voltage	$V_{DD} = 1.8\text{ V} \dots 3.6\text{ V}$		-0.5		+0.5	$^\circ\text{C}$
Resolution RMS	OSR	4096		0.002		$^\circ\text{C}$
		2048		0.003		
		1024		0.005		
		512		0.008		
		256		0.012		