

**ELECTRICAL CHARACTERISTICS
AT 25°C:**

	Symbol	Condition	Min.	Typ.	Max	Unit
Peripheral voltage	V _{IO}	I ² C Bus Active	1.8		5.5	V
Supply voltage	V _{OUT}	Time keeping	0.7		5.5	V
Power current during access	I _{RTC}	f _{scl} =400 kHz, 5V		20		μA
		f _{scl} =100 kHz, 3V		7		μA
Current consumption Time keeping mode	I _{RTCO}	V _{BAT} 3 V, ECO off		270	380	nA
		V _{BAT} 3 V, ECO on		210	320	nA
CLKOUT frequency	F _{CLKOUT}		32768			Hz
Frequency tolerance	ΔF/F	32768Hz@ 25°C	±20 ¹⁾			ppm
Aging first year max.	ΔF/F	@ 25°C	± 3			ppm
Frequency vs. temp.	ΔF/F ₀	20 ≤ T ₀ ≤ 30	-0.035 ppm/°C · (T - T ₀) ² ±10%			ppm

1) Tighter and wider frequency tolerances on request.

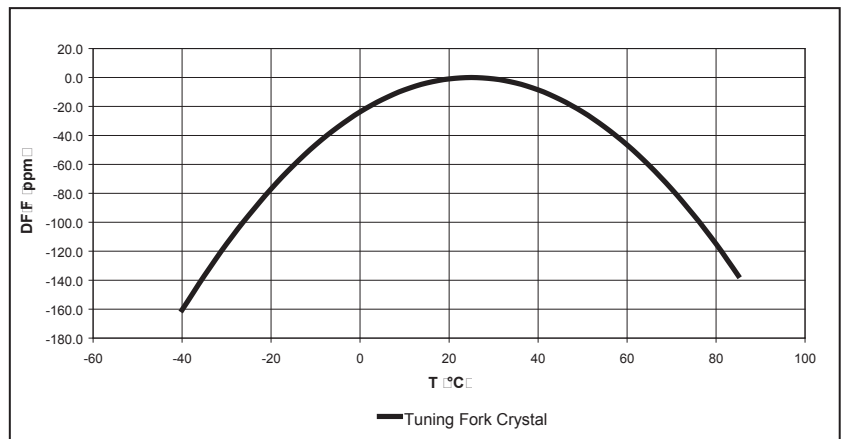
ENVIRONMENTAL CHARACTERISTICS:

		Conditions	Max. Dev.
Storage temp. range		-55 to +125°C	
TA Operating temperature range		-40 to +85°C	
Shock resistance	ΔF/F	5000 g, 0.3 ms, ½ sine	+/-5 ppm
Vibration resistance	ΔF/F	20 g / 10–2000 Hz	+/-5 ppm

TERMINATIONS AND PROCESSING:

Package-Type	Termination	Processing
SON 12-pin	For SMD mounting Au plated pads	Reflow soldering 260°C / 20 s max.

FREQUENCY TEMPERATURE CHARACTERISTICS:



PIN CONNECTIONS TOP VIEW:

Production Date Code

M530A1
2251

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Part Designation

Pin	Connection
1	V _{IO} Monitoring Output
2	INT Interrupt Output
3	SDA Serial Data
4	ECO Oscillator Mode Select
5	V _{IO} Peripheral Supply
6	SCL Serial Clock Input
7	V _{SS} Ground
8	CLKOUT 32.768 kHz Clock Output
9	V _{BAT} Backup Power Supply
10	V _{REG} Voltage Regulator Output
11	V _{OUT} Internal Supply
12	V _{DD} Main Power Supply

All specifications subject to change without notice.



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