



## ELECTRICAL CHARACTERISTICS AT 25°C

More detailed information can be found in the Application Manual.

	Symbol	Condition	Min.	Typ.	Max	Unit
Peripheral voltage	$V_{IO}$	I <sup>2</sup> C-bus active	1.8		5.5	V
Supply voltage	$V_{OUT}$	Time keeping	0.9		5.5	V
Current consumption Time keeping mode	$I_{RTCO}$	I <sup>2</sup> C-bus inactive, $V_{BAT}$ 3 V, ECO on		210	320	nA
CLKOUT frequency	$F_{CLKOUT}$			32768		Hz
Frequency tolerance	$\Delta F/F$	@ 25°C		$\pm 20$ <sup>1)</sup>		ppm
Aging first year max.	$\Delta F/F$	@ 25°C		$\pm 3$		ppm

1) Tighter frequency tolerances on request.

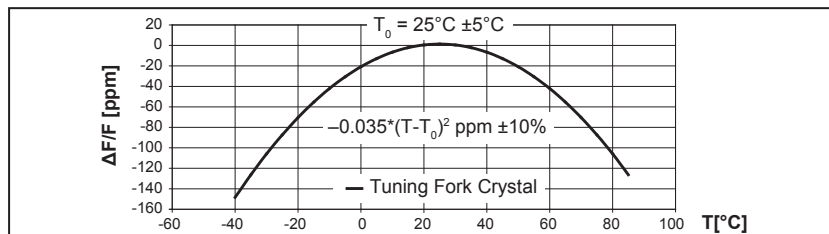
## ENVIRONMENTAL CHARACTERISTICS

	Conditions	Max. Dev.
Storage temp. range	-55 to +125°C	
TA Operating temperature range	-40 to +85°C	
Shock resistance	$\Delta F/F$ 5000 g, 0.3 ms, 1/2 sine	$\pm 5$ ppm
Vibration resistance	$\Delta F/F$ 20 g / 10–2000 Hz	$\pm 5$ ppm

## TERMINATIONS AND PROCESSING

Package	Termination	Processing
SON-12	Au flashed pads	IPC/JEDEC J-STD-020C 260°C / 20 - 40 s

## FREQUENCY TEMPERATURE CHARACTERISTICS



## PIN CONNECTIONS TOP VIEW

Pin	Connection
1	$\overline{V_{IOL}}$ $V_{IO}$ Monitoring Output
2	$\overline{INT}$ Interrupt Output
3	$\overline{SDA}$ Serial Data
4	$\overline{ECO}$ 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

Product Date Code: #11, #7  
Part Designation: M825A1, 2251  
Pin 1 Index: #1, #5, #6, #12

## ORDERING INFORMATION

RV - 2251 - C3 TA QC
RTC module
Product type
Package size
C3 = 3.7 x 2.5 x 0.9 mm
Qualification
QC = Commercial Grade (Standard)
QA = Automotive Grade AEC-Q200
Temperature range
TA = -40 to +85°C (Standard)

A unique part number will be generated for each product specification, i.e.:

20xxxx-MG01	1'000 pcs (in 12 mm tape on 7" reel)
20xxxx-MG03	3'000 pcs (in 12 mm tape on 7" reel)

All specifications subject to change without notice.



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