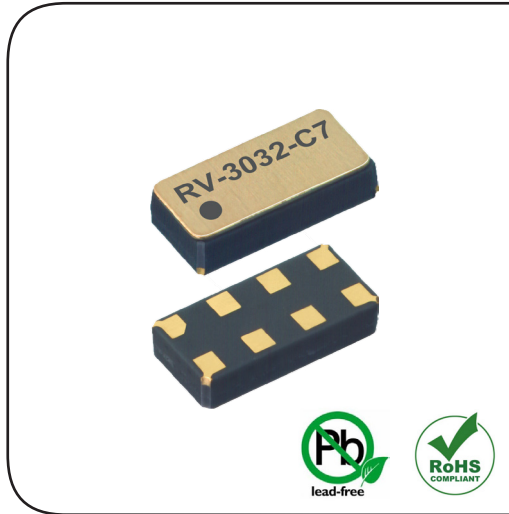
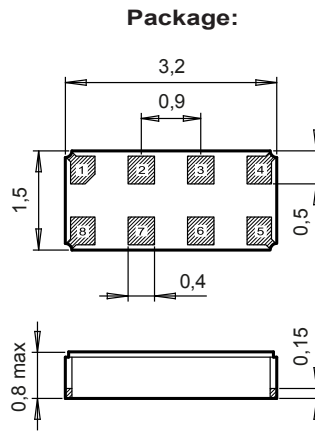


# RV-3032-C7

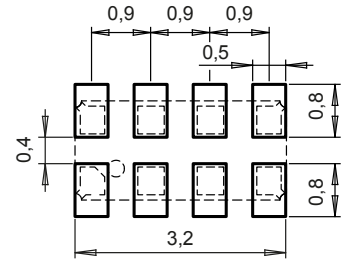
Real-Time Clock Module with I<sup>2</sup>C-Bus



## DIMENSIONS



## Recommended Solder Pad:



Metal lid is connected to V<sub>SS</sub> (pin #5)

All dimensions in mm typical

## APPLICATIONS

IoT  
 Metering  
 Industrial  
 Automotive  
 Health Care  
 Wearables, Portables

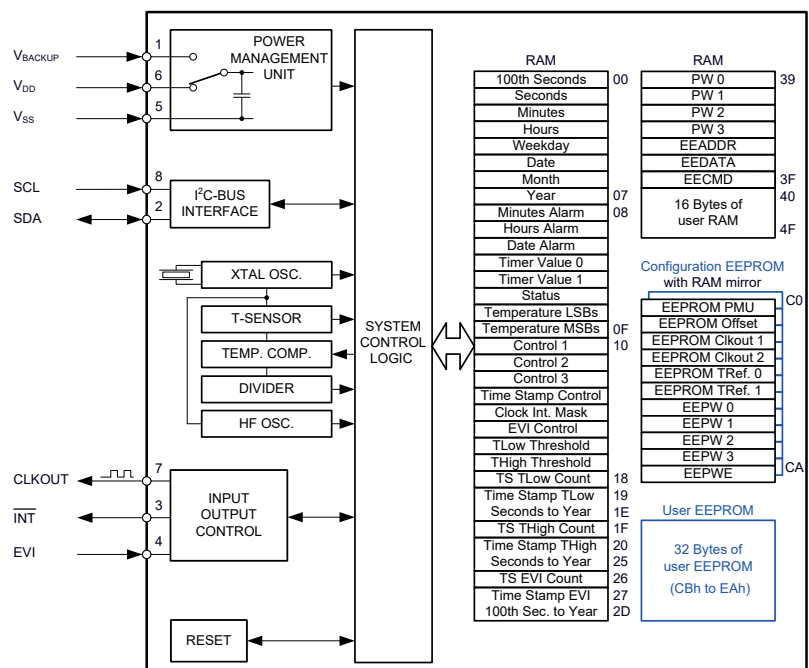
## DESCRIPTION

The RV-3032-C7 is a SMD Real-Time Clock Module that incorporates an integrated CMOS circuit together with an XTAL. It operates under vacuum in a hermetically sealed ceramic package with metal lid.

## FEATURES

- Ultra low power consumption: 160 nA @ 3 V
- Wide operating voltage range: 1.2 V to 5.5 V
- Time accuracy: -40°C to +85°C, ±3 ppm
- 12-bit Temperature Sensor with interrupt function
- User programmable password for write protection
- Automatic Backup Switchover
- Trickle Charger with Charge Pump
- Timer, Alarm and External event functions
- Clock output frequencies: 1 Hz to 52 MHz
- 32 bytes user EEPROM, 16 bytes user RAM
- I<sup>2</sup>C-bus interface: 400 kHz
- 100% Pb-free, RoHS-compliant
- Automotive qualification according to AEC-Q200 available

## BLOCK DIAGRAM



## ELECTRICAL CHARACTERISTICS AT 25°C

More detailed information can be found in the Application Manual.

	Symbol	Condition	Min.	Typ.	Max	Unit
Supply voltage	V <sub>DD</sub>	Temp. comp.	1.2		5.5	V
Supply voltage	V <sub>DD</sub>	I <sup>2</sup> C-bus active	1.4		5.5	V
Current consumption Time keeping mode	I <sub>DDO</sub>	I <sup>2</sup> C-bus inactive, V <sub>DD</sub> = 3 V		160	210	nA
CLKOUT frequency	F <sub>CLKOUT</sub>	Programmable	1 Hz to 52 MHz			
Time accuracy	ΔF/F	-40 to +85°C	±3			ppm
Aging first year max.	ΔF/F	@ 25°C	±3			ppm

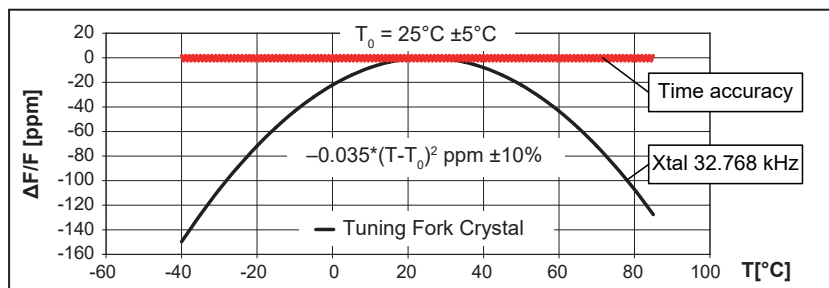
## ENVIRONMENTAL CHARACTERISTICS

	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

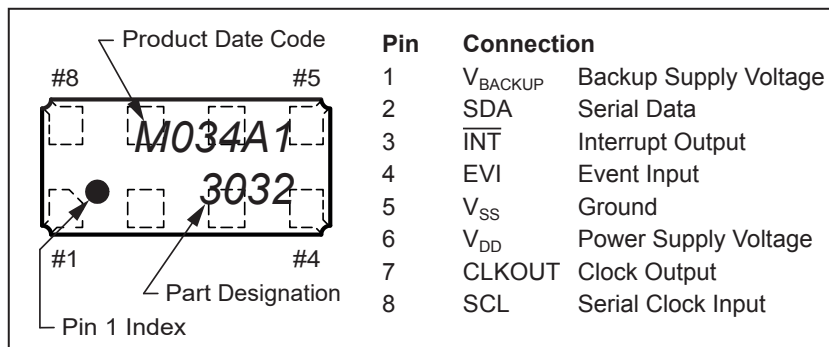
## TERMINATIONS AND PROCESSING

Package	Termination	Processing
SON-8	Au flashed pads	IPC/JEDEC J-STD-020C 260°C / 20 - 40 s

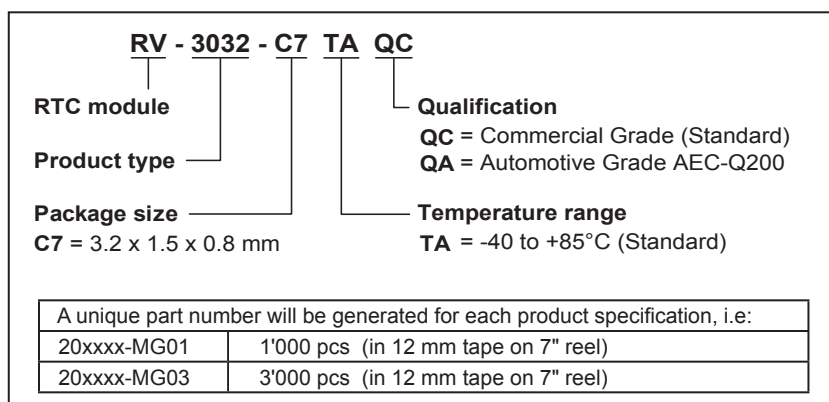
## FREQUENCY TEMPERATURE CHARACTERISTICS



## PIN CONNECTIONS TOP VIEW



## ORDERING INFORMATION



All specifications subject to change without notice.



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