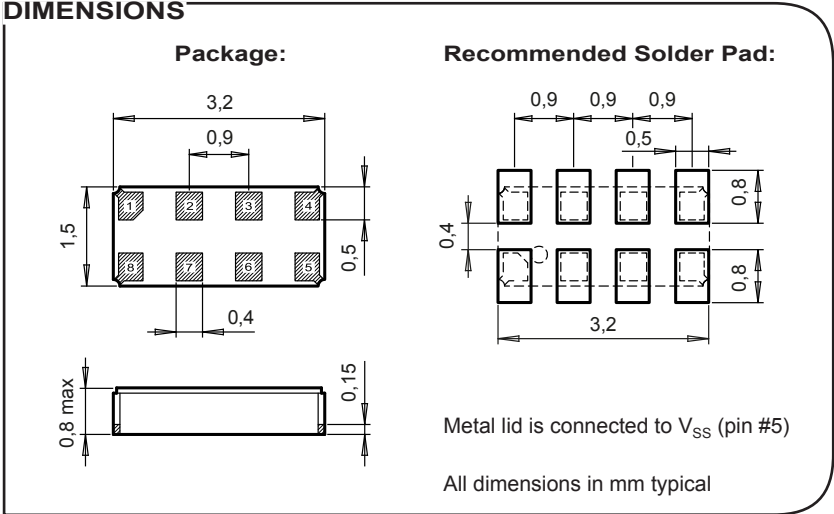
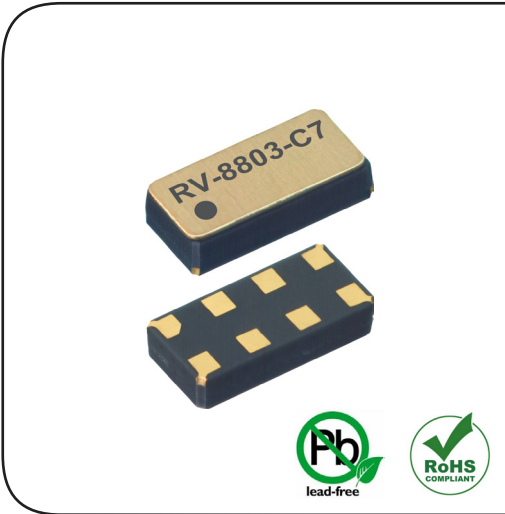


RV-8803-C7

Real-Time Clock Module with I²C-Bus



APPLICATIONS

- IoT
- Metering
- Industrial
- Automotive
- Health Care
- Wearables, Portables

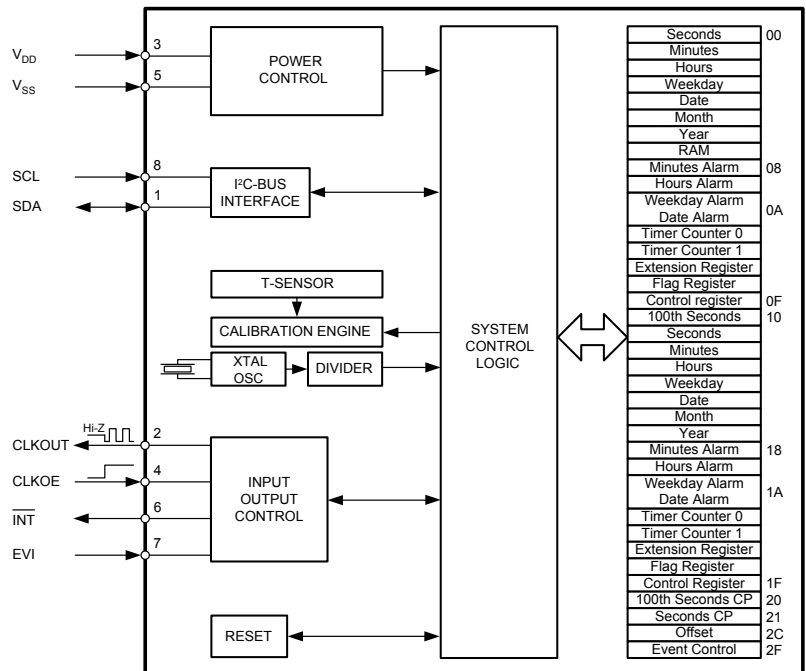
DESCRIPTION

The RV-8803-C7 is a SMT 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

- Low power consumption: 240 nA @ 3 V.
- Wide operating voltage range: 1.5 V to 5.5 V.
- Time accuracy, temperature compensated: -40°C to +85°C, ±3 ppm.
- +85°C to +105°C, ±7 ppm.
- User programmable offset value.
- Provides year, month, date, weekday, hours, minutes, seconds and 100th seconds.
- Automatic leap year correction: 2000 to 2099.
- Timer, alarm and external event input with time stamp.
- Clock output frequencies: 32.768 kHz, 1024 Hz, 1 Hz.
- I²C-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 _{DD} | Temp. comp. | 1.5 | | 5.5 | V |
| Current consumption Time keeping mode | I _{DDO} | I ² C-bus inactive, V _{DD} = 3 V | | 240 | 350 | nA |
| Time accuracy | ΔF/F | -40 to +85°C | ±3 | | | ppm |
| | | +85 to +105°C | ±7 | | | |
| Aging first year max. | ΔF/F | @ 25°C | ±3 | | | ppm |

ENVIRONMENTAL CHARACTERISTICS

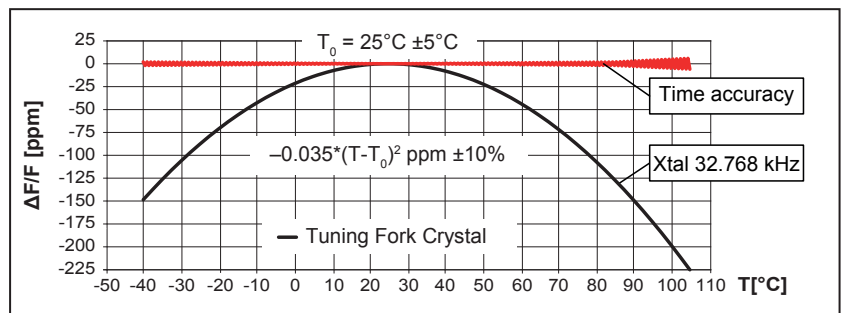
| | | Conditions | Max. Dev. |
|--------------------------------|------|----------------------------|-----------|
| Storage temperature range | | -55 to +125°C | |
| TA Operating temperature range | | -40 to +85°C ¹⁾ | |
| Shock resistance | ΔF/F | 5000 g, 0.3 ms, ½ sine | ±5 ppm |
| Vibration resistance | ΔF/F | 20 g / 10–2000 Hz | ±5 ppm |

1) Supports extended range from +85°C to +105°C with limitations.

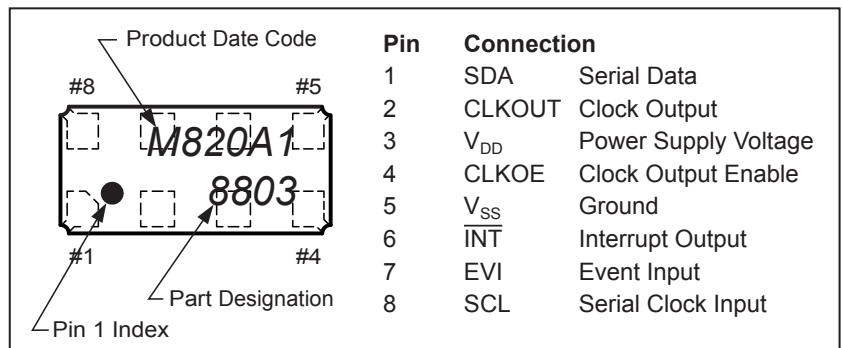
TERMINATIONS AND PROCESSING

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

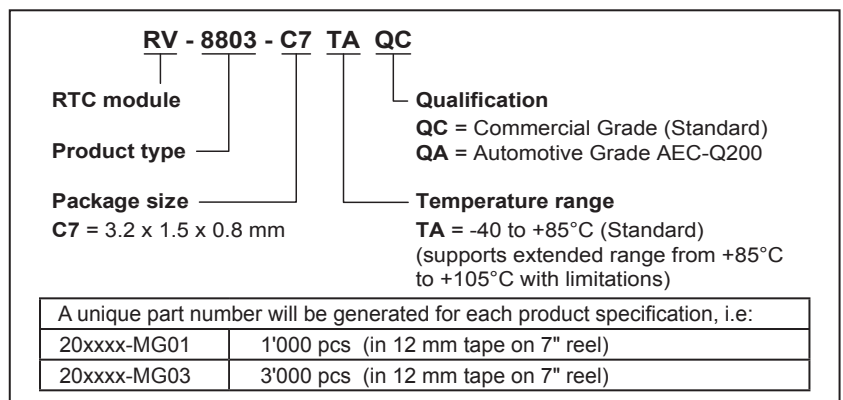
FREQUENCY TEMPERATURE CHARACTERISTICS



PIN CONNECTIONS TOP VIEW



ORDERING INFORMATION



All specifications subject to change without notice.



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