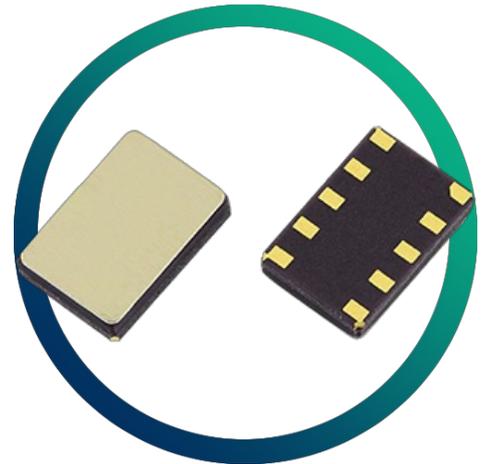


# RV-8523-C3

## RTC I<sup>2</sup>C bus Low Power

- Ultra low power consumption (130nA)
- AEC-Q200 compliant option
- Compliant with I<sup>2</sup>C-Bus interface (400kHz)
- Backup battery input, alarm, timer and interrupt
- Previously named RV8523C3

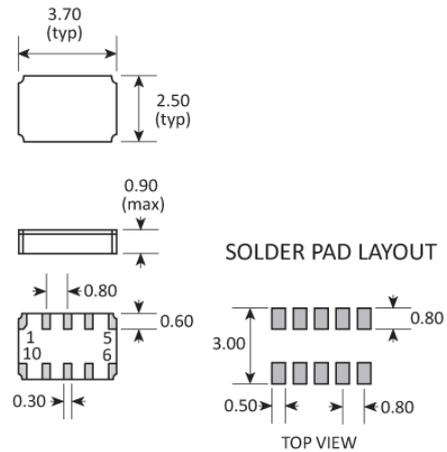


### CONFIGURABLE OPTIONS

Parameter	Option Code
<b>Frequency tolerance</b>	
Any	
±10ppm	A
±20ppm	B
<b>Qualification</b>	
Any	
Commercial	
AEC-Q200 (Automotive)	A

**SPECIFICATIONS**

Frequencies (programmable)	32.768kHz ~ 1Hz
Dimensions	3.7 x 2.5 x 0.9mm
Turnover temperature ( $T_0$ )	+25°C ±5°C
Frequency / temp coefficient	-0.035ppm/°C <sup>2</sup> ±10%
Operating temperature range	-40 to +85°C
Storage temperature range	-55 to +125°C
Supply voltage ( $V_{DD}$ )	I <sup>2</sup> C bus active 1.6 ~ 5.5V Power management 1.8 ~ 5.5V Time-keeping mode 1.2 ~ 5.5V
Supply current (during access)	100/200µA typ/max (f <sub>scl</sub> =1MHz)
Supply current (time-keeping)	50/100µA typ/max (f <sub>scl</sub> =100kHz)
Supply current (time-keeping)	130/180nA typ/max (f <sub>scl</sub> =0Hz, $V_{DD}$ =3V)
Supply current (time-keeping)	110/160nA typ/max (f <sub>scl</sub> =0Hz, $V_{DD}$ =2V)
Ageing	±3ppm max first year
Shock and vibration resistance	±5ppm, 5,000g, 0.3ms, ½ sine ±5ppm, 20g, 10.0 ~ 2,000Hz
Soldering condition	Reflow, 260°C, 20 sec max

**PACKAGE DRAWING**


PAD	CONNECTION	PAD	CONNECTION
1	Supply (VDD)	6	Interrupt 2 output (INT <sup>2</sup> )
2	Interrupt 1 output (INT <sup>1</sup> )	7	Ground (VSS)
3	Serial clock input (SCL)	8	Backup supply voltage
4	Serial data (SDA)	9	Not connected
5	Clock output (CLKOUT)	10	Not connected

Dimensions in mm

## ORDERING INFORMATION

To request a quotation for the RV-8523-C3 please use the configurable options form to choose the options you require and then submit your configured product to our team. Our expert advisers are always happy to help with your requirements and can be contacted on +44 1460 256 100 or at [sales@golledge.com](mailto:sales@golledge.com).

Following product selection you will be issued with a seven character Golledge part number. Your Golledge part number is the internationally accepted Golledge manufacturing part number (MPN) that should be used for all project documentation, including bills of materials (BoMs) and purchase orders.

If you have any queries regarding any of our documentation our dedicated sales team will be happy to help.

## APPLICATIONS

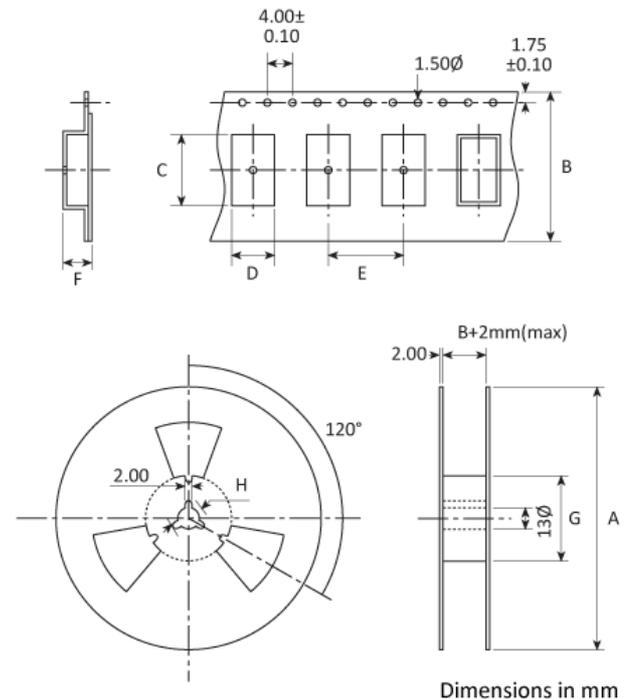
The RV-8523-C3 real time clock is a versatile component suitable for a wide range of applications and uses including:

- Automotive
- Health Care
- IoT
- Industrial
- Metering
- Portable Devices
- Wearables

## TECHNICAL RESOURCES

[RV-8523-C3\\_App-Manual.pdf](#)

## TAPE & REEL SPECIFICATION



A: 178\* B: 12 C: 4 D: 2.7 E: 4 F: 1 G: 80 H: 21

\*Larger reel size available. Please ask for details

**HANDLING & STORAGE**



Human Body Model (HBM) 1A (250V to <500V)



Moisture Sensitivity Level (MSL): 1 (or not applicable)

**COMPLIANCE**



Lead-free (< 0.1% by weight)



RoHS compliant with no exemptions. [See our declaration](#)



REACH compliant. [See our statement](#)



Free of conflict minerals. [See our declaration](#)



Free of Halogens. [See our declaration](#)



Free of Ozone-depleting substances. [See our declaration](#)

**OTHER INFORMATION**

An evaluation/development board for the RV-8523-C3 is also available on request. Please contact our expert advisers at [sales@golledge.com](mailto:sales@golledge.com) for more information.

**CONSTRUCTION**

Ceramic package

**SUPPLY PARTNER**



The RV-8523-C3 is manufactured by Micro Crystal and stocked and supplied by Golledge.

**BLOCK DIAGRAM**

