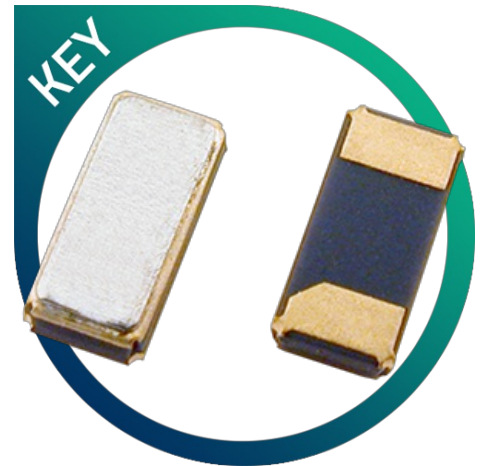


# GSX-315

## Miniature SM 32.768kHz Watch Crystal

- Miniature ceramic package with metal lid
- Vacuum seal for excellent long-term stability
- Low cost for volume applications
- Low power consumption



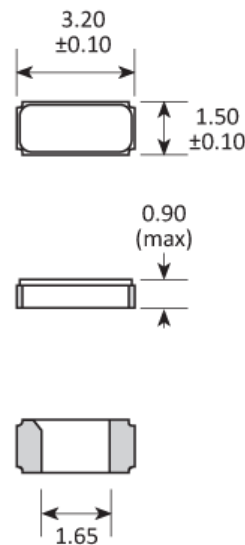
### CONFIGURABLE OPTIONS

Parameter	Option Code
Calibration tolerance	
±20ppm	
Circuit condition	
Any	
6pF	
7pF	
9pF	
12.5pF	

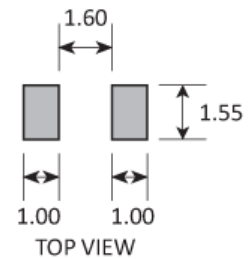
## SPECIFICATIONS

Frequency	32.768kHz
Dimensions	3.2 x 1.5 x 0.9mm
Operating temperature range	-40 to +85 °C
Storage temperature range	-55 to +125 °C
Static capacitance (C <sub>0</sub> )	2.0pF max
Motional capacitance (C <sub>1</sub> )	3.0fF min
Equivalent series resistance	50kΩ typ, 70kΩ max @ 25 °C
Ageing	±3ppm max first year
Drive level	0.1μW typ, 0.5μW max
Turnover temperature (T <sub>0</sub> )	+25 °C ±5 °C
Frequency / temp coefficient	-0.04ppm/°C <sup>2</sup> max
Shock resistance	3,000g, 0.3ms, ½ sine
Vibration resistance	20g, 55.0 ~ 2,000Hz
Soldering condition	Reflow, 260 °C, 20 sec max

## PACKAGE DRAWING



## SOLDER PAD LAYOUT



Dimensions in mm

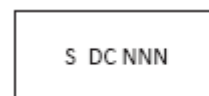
## ORDERING INFORMATION

To request a quotation for the GSX-315 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.

## MARKING

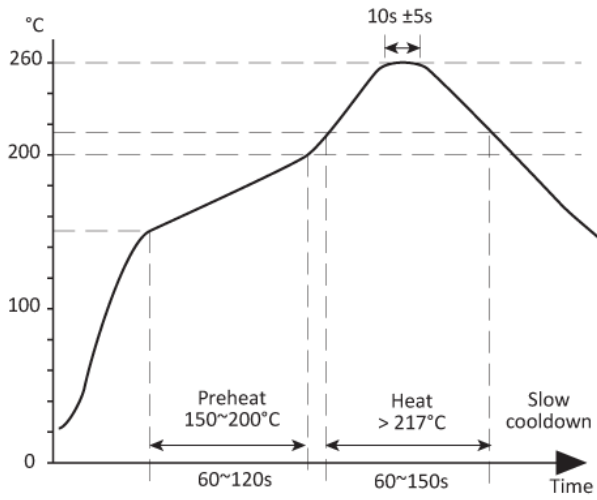


Marking type: Laser  
DC = Date code  
NNN = Lot number

DC = Date Code in YM, eg. "GF" = Jun 2017

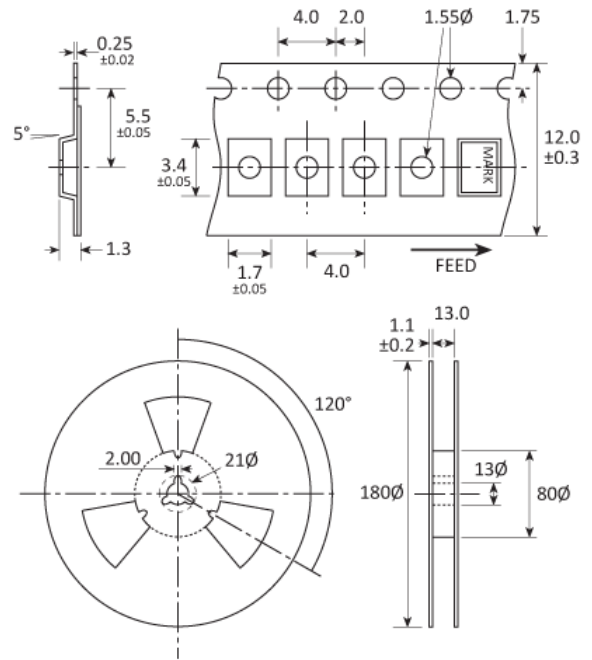
	A	B	C	D	E	F	G	H	J	K	L	M
Y	1	2	3	4	5	6	7	8	9	0		
M	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

**SOLDERING PROFILE**



Lead free solderability limits: 260°C ± 5°C x 10s ± 5s x 2.

**TAPE & REEL SPECIFICATION**



Dimensions in mm

**HANDLING & STORAGE**



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



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

**CONSTRUCTION**

Ceramic body with gold-plated pads  
Metal lid, seam sealed

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**MATERIAL COMPOSITION**

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Lead-free (&lt; 0.1% by weight)

RoHS 2 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](#)

Nominal Net Mass: 12mg

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**COMPOSITION**

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MCDFamily GSX-315.pdf

## OTHER INFORMATION

### About Golledge

We are the UK's leading supplier of frequency control products and are proud to serve the global electronics industry. Our philosophy is a focus firmly on your requirements by striving to meet and exceed your needs. We do this by ensuring the utmost quality and consistency in our products and services. If you have any queries about the Golledge service or any of our products please get in touch, we'd love to hear from you.

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Our customer feedback is testament to our quality; "Never had such good service as this from anyone in 35 years of being in the industry, this is impressive and has really helped us out of a corner to keep the design flowing" Andy (Senior Design Engineer), "As always your support is state of the art" Nicoleta (Material Management), "Legendary work - as usual it has to be said" John (Operations).

To take advantage of our highly praised service get in touch with us today.