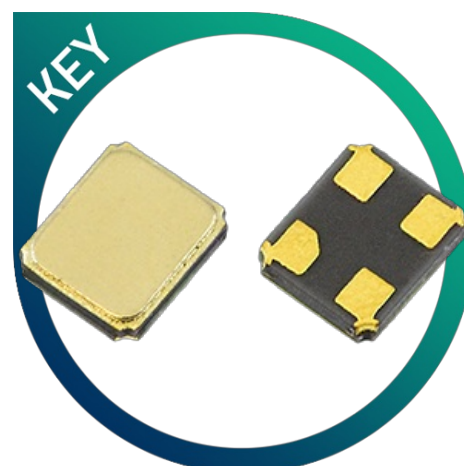


GSX-113

Ultra miniature low profile SM Crystal

- Fundamental mode up to 80.0MHz
- Ultra-miniature for maximum space saving
- Low profile and light weight for smart cards
- Seam sealed for excellent long-term stability
- Compatible with latest ASIC designs



CONFIGURABLE OPTIONS

Parameter	Option Code
Frequency	
Calibration tolerance	
Any	
±5ppm	L
±10ppm	1
±20ppm	2
±30ppm	3
Temperature stability	
Any	
±10ppm	1
±15ppm	P
±20ppm	2
±30ppm	3
Operating temperature range	
Any	
-20 to +70 °C	2
-30 to +80 °C	3
-40 to +85 °C	4
Circuit condition	
Any	
5pF	R
6pF	T
8pF	M
10pF	A
12pF	B
Oscillation mode	
Fundamental	F

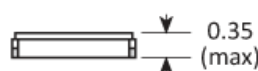
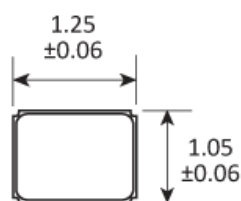
* ±5ppm calibration tolerance may not be available at certain frequencies. Check with our sales office before ordering



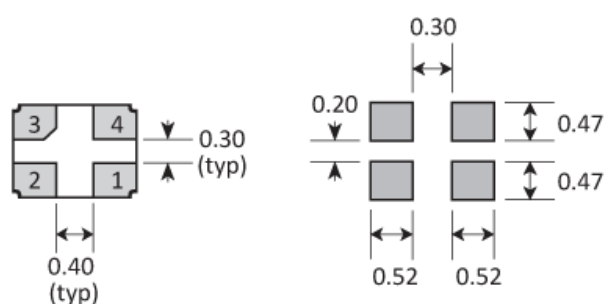
SPECIFICATIONS

Frequency range	32.0 ~ 80.0MHz
Dimensions	1.25 x 1.05 x 0.35mm
Storage temperature range	-40 to +125 °C
Equivalent series resistance	120Ω max @ 32.0MHz 100Ω max @ 40.0MHz 60Ω max @ 48.0MHz 40Ω max @ 76.8MHz
Ageing	±1ppm max first year
Test drive level	10μW
Soldering condition	260 °C, 10 sec x2 max
Net mass	1.69mg

PACKAGE DRAWING



SOLDER PAD LAYOUT



PAD	CONNECTION
1	Crystal
2	Not connected
3	Crystal
4	Ground & lid

Dimensions in mm



ORDERING INFORMATION

To request a quotation for the GSX-113 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.

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.

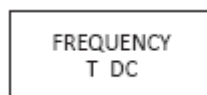
APPLICATIONS

Our crystals and oscillators are regularly supplied for use with industry-leading ICs, from world-leading manufacturers including:

Analogue Devices
Atmel (Microchip Technology Inc.)
Broadcom
Dialog Semiconductor PLC
Intel
Nordic Semiconductor
NXP Semiconductors
Qualcomm (and CSR)
Silicon Labs
STMicroelectronics
Texas Instruments (TI)
Xilinx
and more...

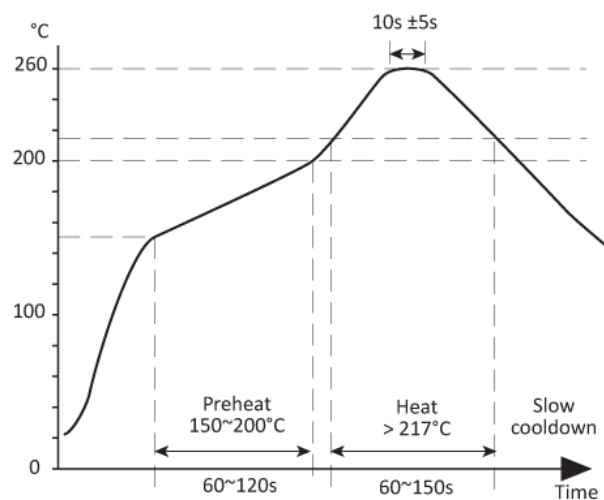
If you'd like more information about chipset compatibility please [get in touch with our team here](#).

MARKING



Marking type: Laser
DC = Date code

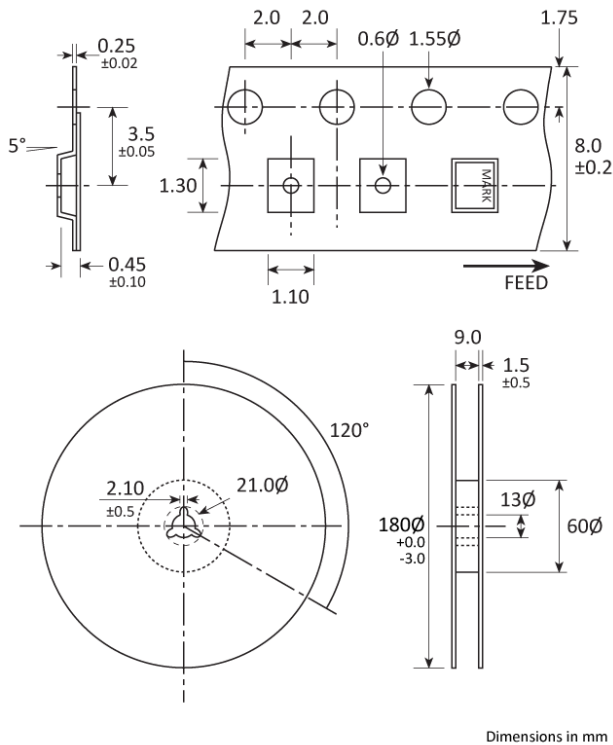
SOLDERING PROFILE



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



TAPE & REEL SPECIFICATION



CONSTRUCTION

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

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](#)

