

# GSX-228

## SM Crystal High Frequency Fundamental

- Fundamental mode up to 315MHz
- Plasma etched inverted mesa process
- Wide pulling range (fundamental mode)
- Small & medium volumes also available
- Custom frequencies available on short leadtimes



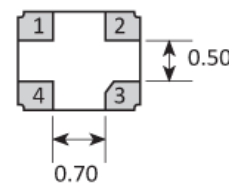
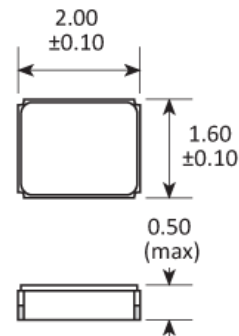
### CONFIGURABLE OPTIONS

Parameter	Option Code
Frequency	
Calibration tolerance	
Any	
±10ppm	1
±20ppm	2
±30ppm	3
Temperature stability	
Any	
±10ppm	1
±20ppm	2
±30ppm	3
±50ppm	5
Operating temperature range	
Any	
-20 to +70°C	2
-40 to +85°C	4
Circuit condition	
Any	
8pF	M
9pF	N
12pF	B
16pF	D
20pF	F
Series resonant	S
Oscillation mode	
Fundamental	F

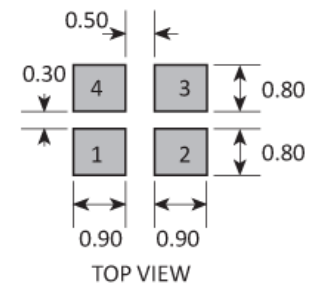
## SPECIFICATIONS

Frequency range	20.0 ~ 315MHz
Storage temperature range	-40 to +90°C
Equivalent series resistance (max)	100Ω (20.0 ~ 35.9MHz) 80Ω (36.0 ~ 69.9MHz) 60Ω (70.0 ~ 315MHz, fund)
Ageing	±3ppm max first year
Test drive level	10μW typ, 100μW max (<70.0MHz) 2.0μW max (70.0MHz+)
Soldering condition	260°C, 10sec x2 max

## PACKAGE DRAWING



### SOLDER PAD LAYOUT



PAD	CONNECTION
1	Crystal
2	Ground & lid
3	Crystal
4	Ground & lid

Dimensions in mm

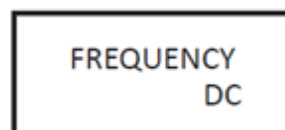
## ORDERING INFORMATION

To request a quotation for the GSX-228 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

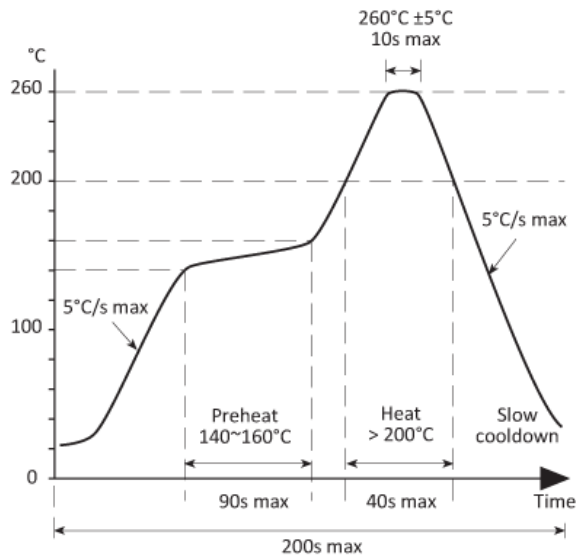


Marking type: Laser

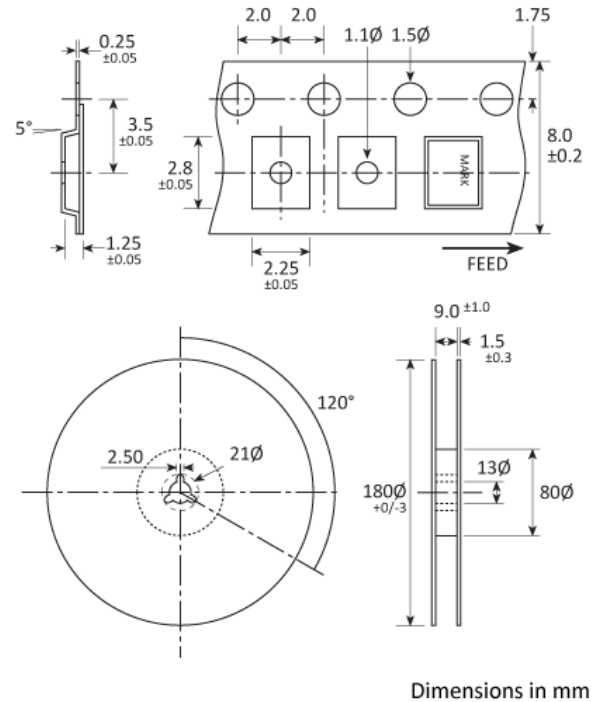
DC = Date Code in YM, eg. "GF" = Jun 2017

	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



## TAPE & REEL SPECIFICATION



## HANDLING & STORAGE



Human Body Model (HBM) 1A (250V to &lt; 500V)



Moisture Sensitivity Level (MSL): 1

## COMPLIANCE



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



RoHS compliant with no exemptions.

## CONSTRUCTION

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