

Product Description

Description:	104.0MHz GSX-331/X SM Crystal
Product family:	GSX-331
Category:	SM Quartz Crystal
Order code:	MP05322

Features

- ▶ Metal lid can be grounded to minimise EMI
- ▶ Seam seal for excellent long-term stability
- ▶ Ultra-miniature for maximum space saving

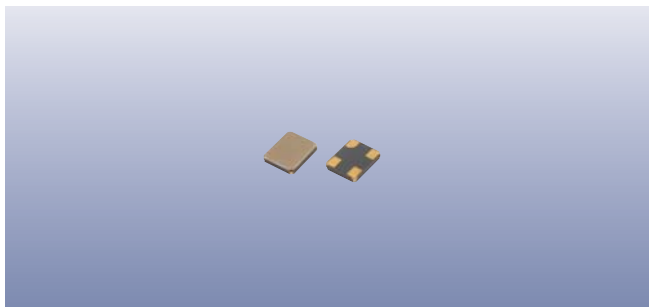
Additional Information

For further information regarding packaging, construction, material composition, soldering profile and environment, please refer to **GSX-331 Product Information sheet**

For dimensions, refer to package drawing: **D0240-A**

Electrical Specifications

Parameter	Value	Notes
Nominal frequency:	104.0MHz	
Calibration tolerance:	±10ppm max	At 25°C ±3°C
Temperature stability:	±80ppm max	Referred to frequency at 25°C
Operating temperature range:	0 to +125°C	
Storage temperature range:	-40 to +125°C	
Circuit condition:	12pF	
Static capacitance (C_0):	1.35pF ±20%	
Motional capacitance (C_1):	0.34fF ±15%	
Ageing:	±2ppm max	First year
Oscillation mode:	3rd overtone	
Equivalent series resistance:	100Ω max	
Drive level:	100μW max	



Packaging & Handling

Production quantities supplied on T&R, 3k pcs per reel.
Small quantities may be supplied on tape (no reel), or in bulk.

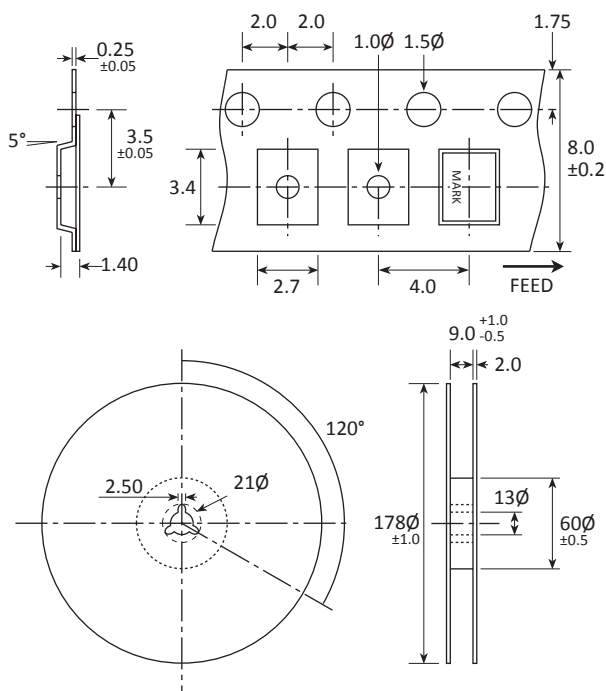
Marking

FREQUENCY
S DC

Marking type: Laser
DC = Date code in YM, as shown below
Example: "GJ" = Sep 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

Tape & Reel Specification



Not to scale. Dimensional tolerances $\pm 0.1\text{mm}$ unless otherwise stated.

Construction

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

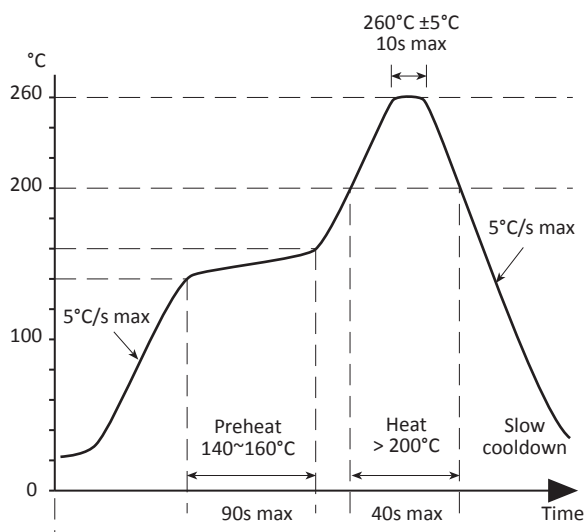
Composition



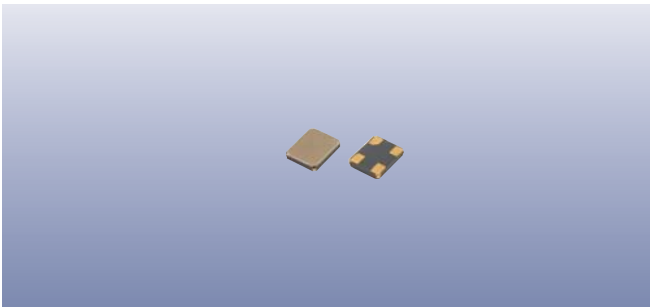
This product is lead-free, and is fully compliant with current RoHS directives





Soldering Profile

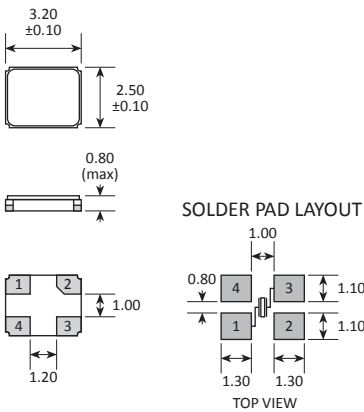


Maximum solder resistance: 260°C x 10 secs x 2.



Product Family
GSX-331, GRX-330
Construction
 Ceramic body with gold-plated pads
 Metal lid, seam sealed

Dimensions (mm)



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