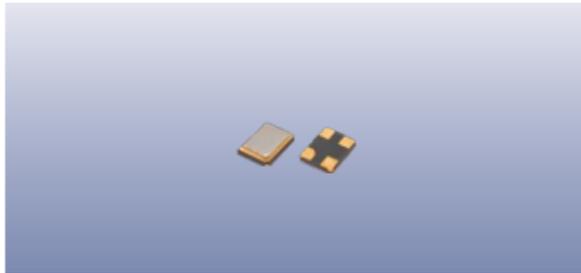




## Specification

## Part No: MP05808



### Product Description

Description:	12.2880MHz GSX-333/P21PF SM Crystal
Product family:	GSX-333
Category:	SM Quartz Crystal
Order code:	MP05808

### Features

- ➡ Metal lid can be grounded to minimise EMI
- ➡ Seam sealed 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-333 Product Information sheet](#)

For dimensions, refer to package drawing: [D0262-A](#)

### Electrical Specifications

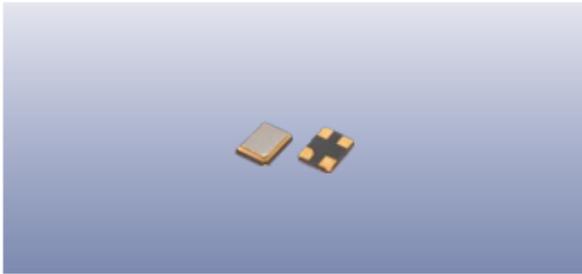
Parameter	Value	Notes
Nominal frequency:	12.2880MHz	
Calibration tolerance:	±15ppm max	At 25°C ±3°C
Temperature stability:	±20ppm max	Referred to frequency at 25°C
Operating temperature range:	-10 to +60°C	
Storage temperature range:	-40 to +85°C	
Circuit condition:	15pF	
Static capacitance (C <sub>0</sub> ):	3.0pF max	
Oscillation mode:	Fundamental	
Equivalent series resistance:	100Ω max	
Aging:	±1ppm/year max	
Test drive level:	10μW typ	100μW max





## Product Information

## GSX-333



### Construction

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

### Composition



This product is lead-free, and is fully compliant with the RoHS directive 2002/95/EC



### 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

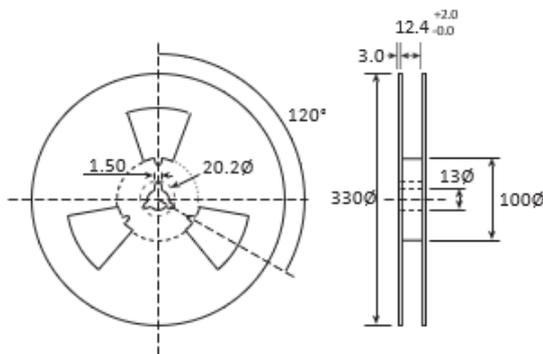
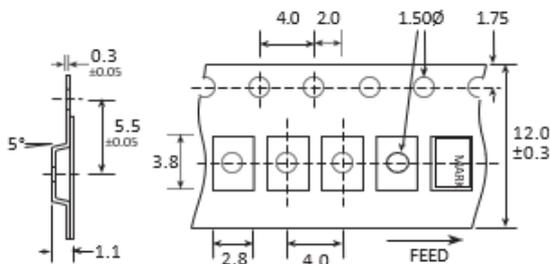
FREQUENCY	T zDC

Marking type: Laser  
DC = Date code in YW, as shown below  
Example: "zd" = 2012 week 30

Year	2009	2010	2011	2012
	2013	2014	2015	2016
Code	Z	z	Z	z

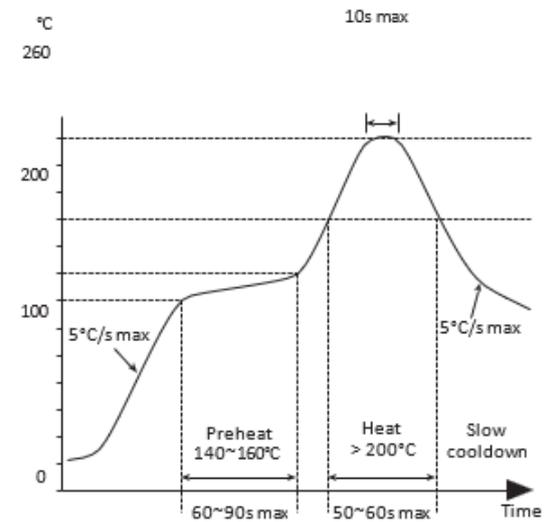
Week codes:  
A ~ Z: weeks 1 to 26  
a ~ z: weeks 27 to 52

### Tape & Reel Specification



Not to scale. Dimensional tolerances ±0.1mm unless otherwise stated.

### Soldering Profile



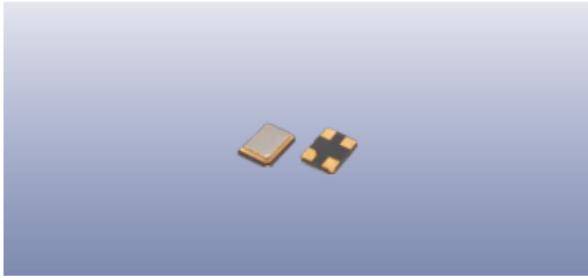
Maximum solder resistance: 260°C x 10 secs x 2.





## Product Information

## GSX-333



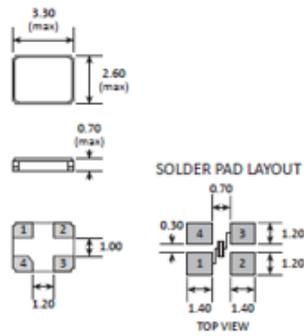
### Product Family

GSX-333

### 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

NOTE: Chamfer normally on pad 4, but may alternatively be supplied on pad 1.

