Product Description

Description:	16.0MHz GSX-333/133DF SM Crystal
Product family:	GSX-333
Category:	SM Quartz Crystal
Order code:	MA06977

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:	16.0MHz	
Calibration tolerance:	±10ppm	
Temperature stability:	±30ppm	
Operating temperature range:	-30 to +80°C	
Storage temperature range:	-40 to +85°C	
Circuit condition (C_L):	16pF	
Oscillation mode:	Fundamental	
Equivalent series resistance:	60Ω max	
Frequency perturbation:	±1ppm max	
Test drive level:	10µW	
Ageing:	±1ppm max	First year
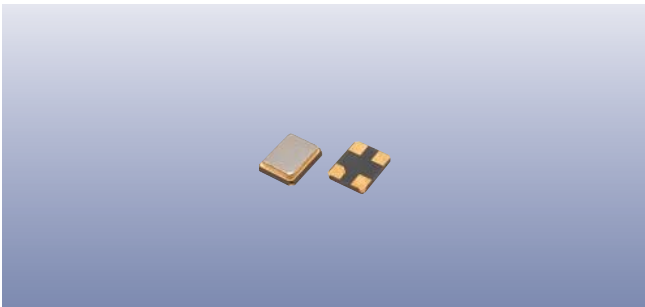
Construction

➠ **Ceramic body with gold-plated pads**

➠ **Metal lid, seam sealed**

Composition

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

Pb LeadFree
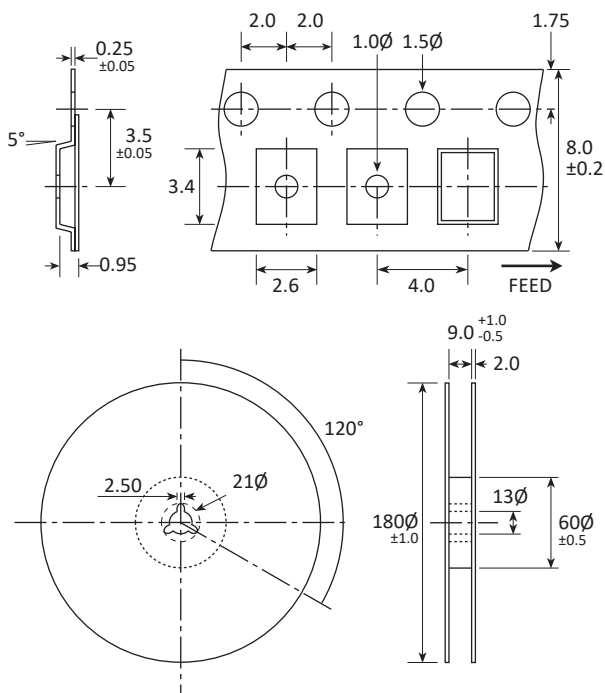
Packaging & Handling

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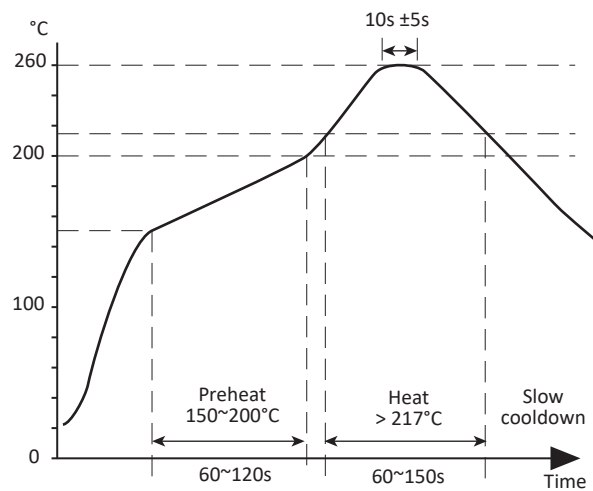Small quantities may be supplied on tape (no reel), or in bulk.

Marking

FREQUENCY
DC

Marking type: Laser
DC = Date code

Soldering Profile
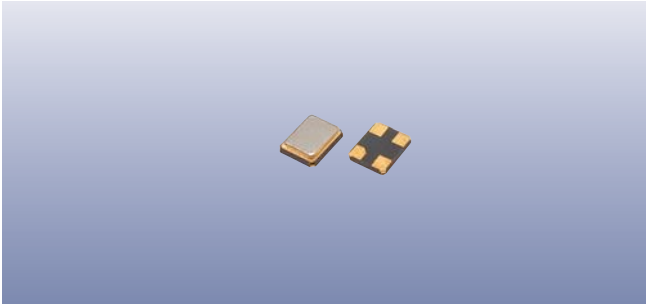

Lead free solderability limits 260°C ±5°C x 10s ±5s x 2.

Tape & Reel Specification

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

Product Family

GSX-333

Construction

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

Dimensions (mm)

3.30 (max)

2.60 (max)

0.80 (max)

SOLDER PAD LAYOUT

0.70

0.30

| 4 | 3 | 1.20
| 1 | 2 | 1.20

1.40   1.40

TOP VIEW

1.00

1.20

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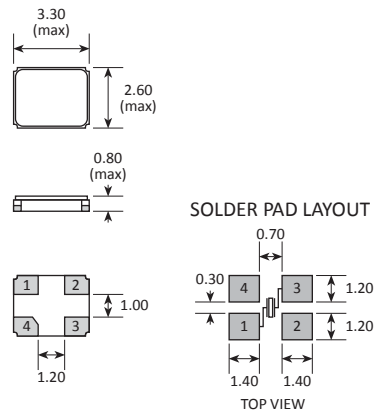
PAD	CONNECTION
1	Crystal
2	Ground & lid
3	Crystal
4	Ground & lid

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