

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

## Features

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

## Specifications

Parameters	Product	Option Codes
	GSX-531	
Frequency range:	8.0 ~ 100MHz	■
Calibration tolerance:	±5ppm ±10ppm ±20ppm ±30ppm Other values	□ ■ □ □ □ specify
Temperature stability:	±5ppm ±10ppm ±15ppm ±20ppm ±30ppm Other values	□ ■ □ □ □ □ specify
Operating temperature range:	0 to +50°C -10 to +60°C -20 to +70°C -30 to +80°C -40 to +85°C Other values	□ ■ □ □ □ □ specify
Storage temperature range:	-40 to +90°C	■
Circuit condition:	9pF 12pF 16pF 20pF 30pF Other values	□ □ ■ □ □ □ specify
Oscillation mode:	Fundamental (8.0 ~ 54.0MHz) 3rd overtone (40.0 ~ 100MHz)	■ □ F 3
Static capacitance (C <sub>0</sub> ):	7pF max	■
Equivalent series resistance:	60Ω (8.0 ~ 10.9MHz) 50Ω (11.0 ~ 11.9MHz) 40Ω (12.0 ~ 24.9MHz) 30Ω (25.0 ~ 54.0MHz, fund) 120Ω (40.0 ~ 59.9MHz, 3rd OT) 80Ω (60.0 ~ 100MHz, 3rd OT)	■ ■ ■ ■ ■ ■
Ageing:	±3ppm max first year ±1ppm max first year	■ □ specify
Test drive level:	10μW typ, 100μW max	■
Soldering condition:	260°C, 10 sec x2 max	■

■ Standard. □ Optional - Please specify required code(s) when ordering

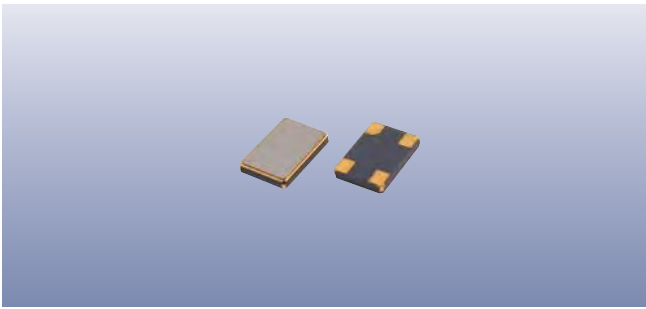
## Ordering Information

Product name + option codes + frequency

eg: **GSX-531/111DF 12.80MHz** 10/10/10/16-F

**GSX-531/LP2JF 24.5760MHz** 05/15/20/30-F

Option code X (eg GSX-531/X) denotes a custom specification.



## Packaging & Handling

Production quantities supplied on T&R, 1k pcs per reel.  
Small quantities may be supplied on tape (no reel), or in bulk.

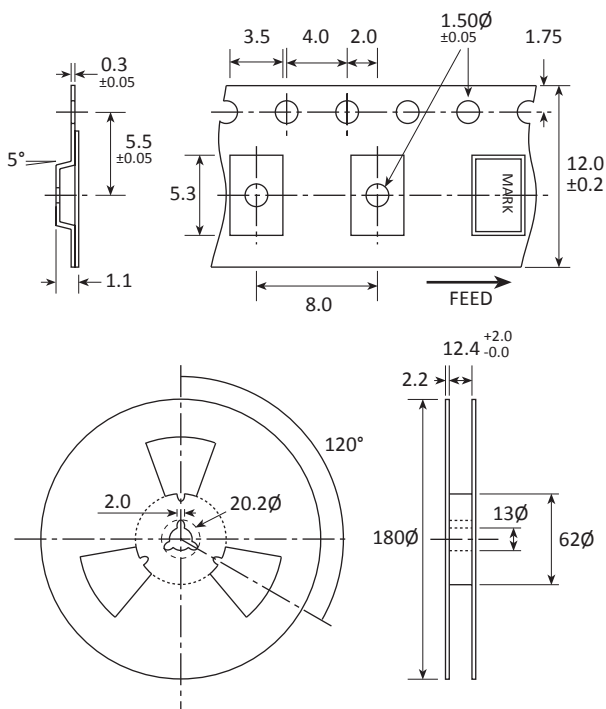
## Marking

FREQUENCY  
S DC

Marking type: Laser  
DC = Date code in YM, eg "EB" = Feb 2015

	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 ±0.1mm unless otherwise stated.

## Construction

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

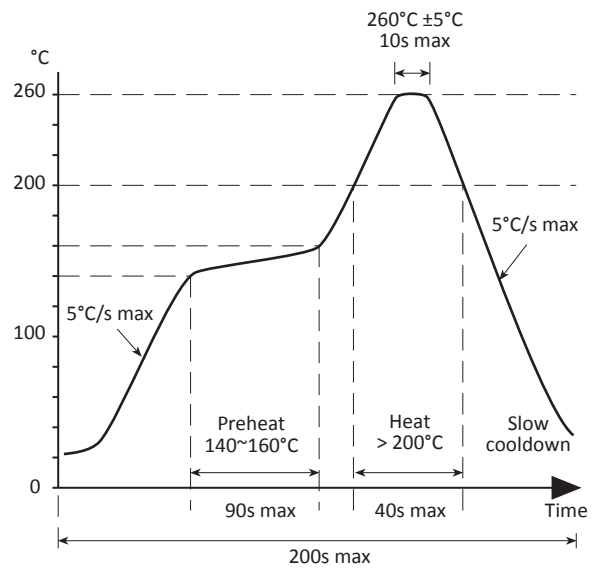
## Composition



This product is lead-free, and is fully compliant with the RoHS directive 2011/65/EC



## Soldering Profile



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