

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 GSX-531	Option Codes
Frequency range:	8.0 ~ 100MHz	■
Calibration tolerance:	±5ppm □ ±10ppm ■ ±20ppm □ ±30ppm □ Other values □	L 1 2 3 specify
Temperature stability:	±5ppm □ ±10ppm ■ ±15ppm □ ±20ppm □ ±30ppm □ Other values □	L 1 P 2 3 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 □	0 1 2 3 4 specify
Storage temperature range:	-40 to +90°C	■
Circuit condition:	9pF □ 12pF □ 16pF ■ 20pF □ 30pF □ Other values □	N B D F J 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

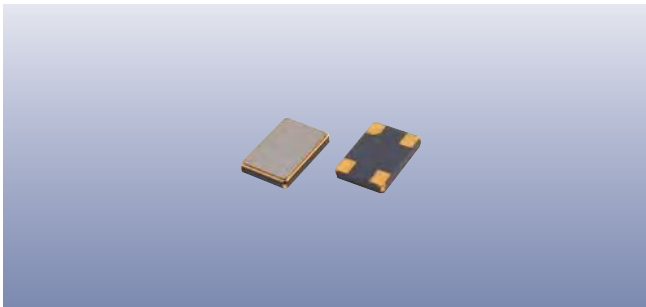
## Ordering Information

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.

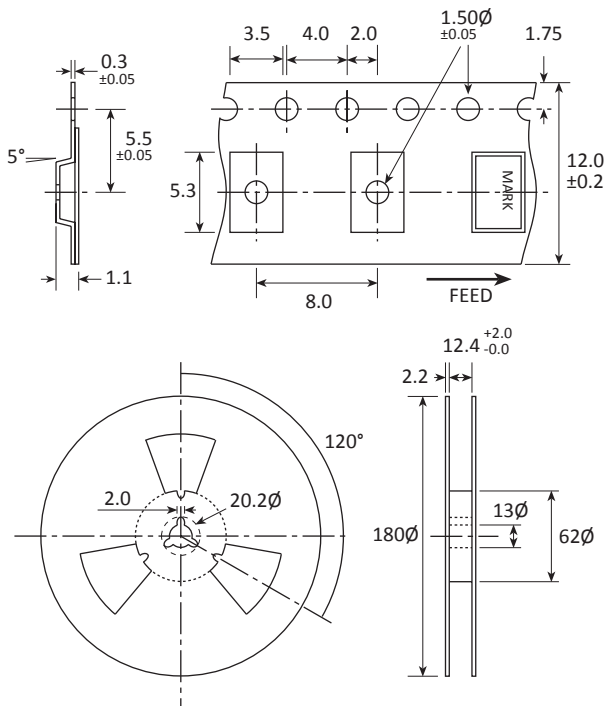
## Marking

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  $\pm 0.1\text{mm}$  unless otherwise stated.

## Construction

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

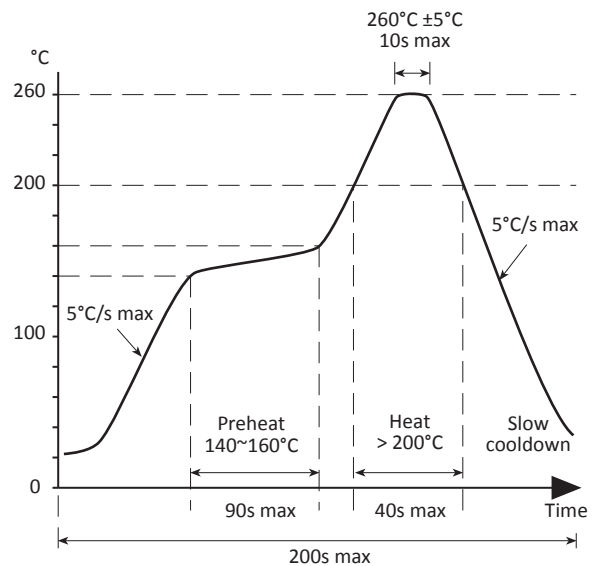
## Composition



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



## Soldering Profile



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