

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

Features

- ▶ Ultra-miniature for maximum space saving
- ▶ Ideal for Bluetooth / Wireless applications
- ▶ High reliability & tight stability
- ▶ Metal lid can be grounded to minimise EMI
- ▶ Seam sealed for excellent long-term stability

Specifications

Parameters	Product	Option Codes
	GSX-221	
Frequency range: 16.0 ~ 56.0MHz	■	
Calibration tolerance: ±10ppm ±15ppm ±20ppm Other values (±7.5 ~ ±100ppm)	■ □ □ □	1 P 2 specify
Temperature stability: ±10ppm ±15ppm ±20ppm ±30ppm Other values (±7.5 ~ ±100ppm)	■ □ □ □ □	1 P 2 3 specify
Operating temperature range: -10 to +60°C -20 to +70°C -30 to +80°C Other values	■ □ □ □	1 2 3 specify
Storage temperature range: -40 to +90°C	■	
Circuit condition: 8pF 9pF 12pF Other values	□ ■ □ □	M N B specify
Oscillation mode: Fundamental	■	F
Equivalent series resistance (max): 150Ω (16.0 ~ 19.9MHz) 100Ω (20.0 ~ 29.9MHz) 80Ω (30.0 ~ 35.9MHz) 60Ω (36.0 ~ 56.0MHz)	■ ■ ■ ■	
Ageing: ±3ppm max first year	■	
Static capacitance (C0): 5pF max	■	
Test drive level: 10μW typ	■	
Soldering condition: 260°C, 10 sec x2 max	■	

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

Ordering Information

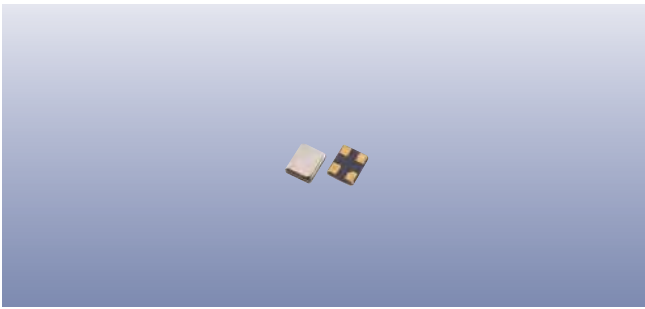
Part No, or product name + option codes + frequency

eg: **GSX-221/111NF 26.0MHz** 10/10/10/9-F

GSX-221/1P3BF 26.0MHz 10/15/30/12-F

Option code X (eg GSX-221/X) denotes a custom specification.

♦ ±10ppm temperature stability may not be available over -30+80°C. Check with our sales office before ordering.



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/EU



Packaging & Handling

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

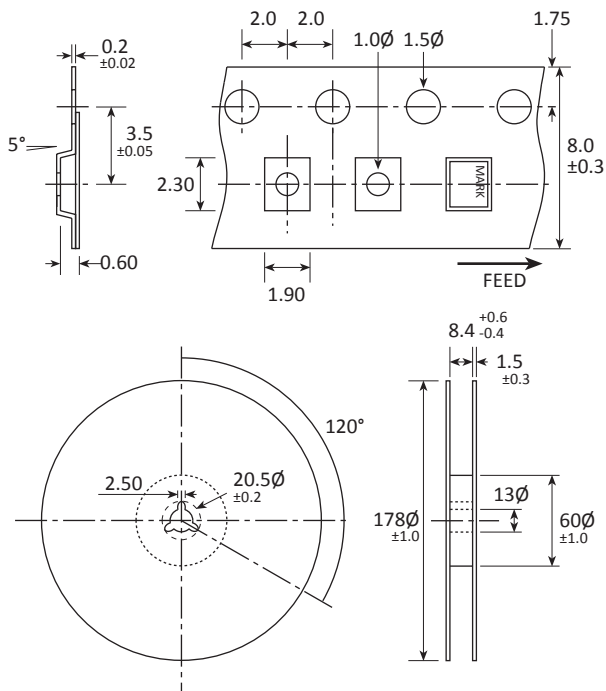
Marking

FREQUENCY
S DC

Marking type: Laser
DC = Date code in YM, eg "CE" = May 2013

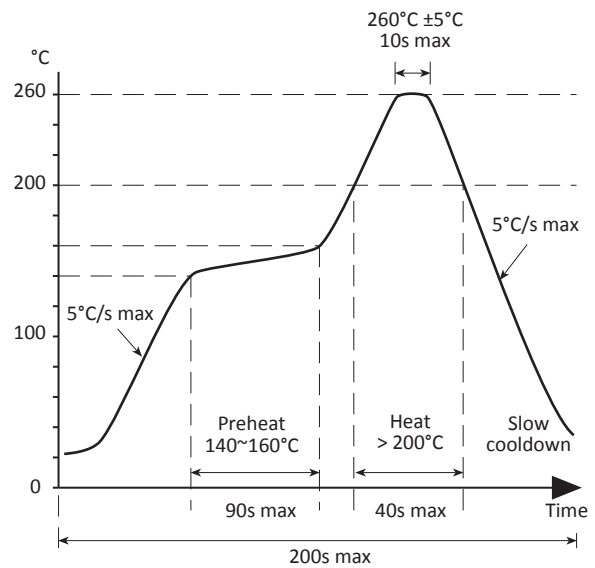
	A	B	C	D	E	F	G	H	J	K	L	M
Y	1	2	3	4	5	6	7	8	9	0		
M	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Tape & Reel Specification



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

Soldering Profile



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