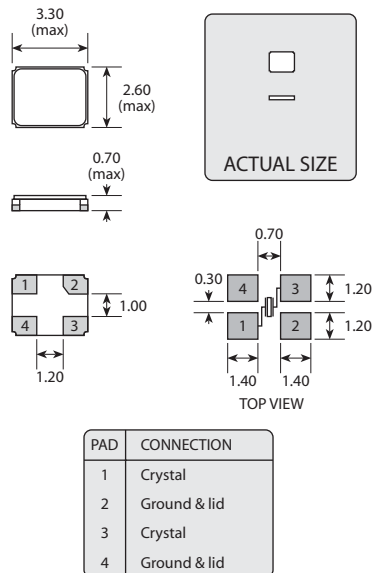
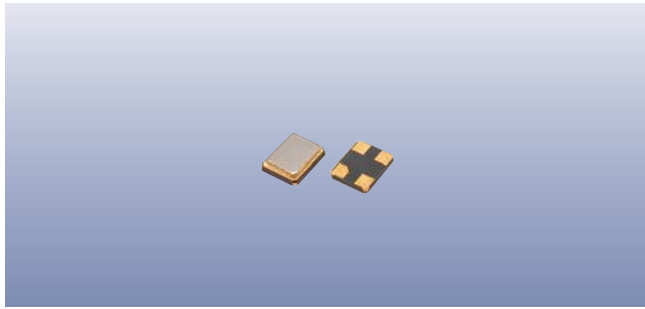




Scale 3:1

Features

- Good frequency perturbation
- Metal lid can be grounded to minimise EMI
- Seam sealed for excellent long-term stability
- Ultra-miniature for maximum space saving
- Ideal for Bluetooth / Wireless applications

Bluetooth Applications

Frequency	Specification	IC	Part No
12.0MHz	8pF, 10.5ppm/pF typ pullability	CSR	MA07080*
16.0MHz	9pF, 9ppm/pF typ pullability	CSR	MA06152*
26.0MHz	9pF, 16.5ppm/pF typ pullability	CSR	MA05768*

* Qualified for use with CSR chipset solutions. Golledge is a global supply partner for CSR

GPS / Mobile Applications

Frequency	Specification	IC / Appln	Part No
20.0MHz	16pF		MA06153

Specifications

Parameters	Product GSX-333	Option Codes
Frequency range: 12.0 ~ 48.0MHz	■	
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 +85°C	■	
Circuit condition: 8pF 9pF 12pF 16pF Series resonant Other values	□ □ □ ■ □ □	M N B D S specify
Oscillation mode: Fundamental	■	F
Equivalent series resistance: 60Ω max	■	
Frequency perturbation: ±1ppm max	■	
Ageing: ±1ppm max first year	■	
Test drive level: 10μW	■	
Soldering condition: 260°C, 10 sec x2 max	■	

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

Ordering Information

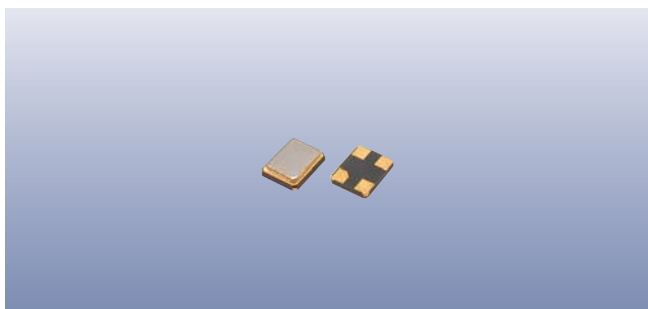
Product name + option codes + frequency

eg: **GSX-333/111NF 16.0MHz** 10/10/10/9-F

GSX-333/1P3AF 26.0MHz 10/15/30/10-F

Option code X (eg GSX-333/X) denotes a custom specification.

- ±10ppm temperature stability may not be available over -30+80°C. Check with our sales office before ordering.
- Available on T&R - 1k or 3k pcs per reel.



Packaging & Handling

Production quantities supplied on T & R, 1k or 3k pcs per reel.
Small quantities may be supplied on tape (no reel), or in bulk.

Marking

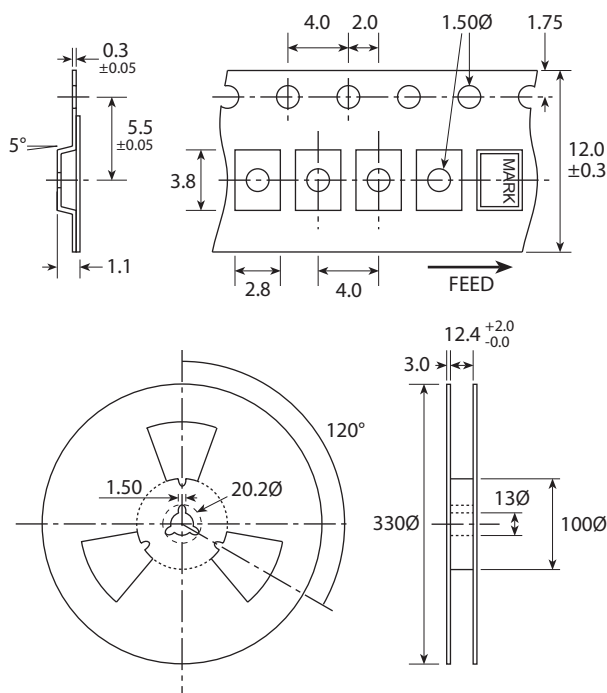
FREQUENCY
T DC

Marking type: Laser
DC = Date code in YW, as shown below
Example: "zd" = 2004 week 30

Year	2001	2002	2003	2004
	2005	2006	2007	2008
Code	Z	z	<u>Z</u>	<u>z</u>

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

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

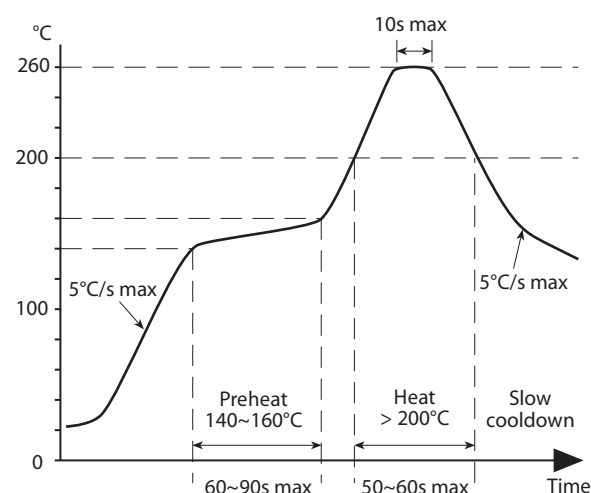
Composition



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



Soldering Profile



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