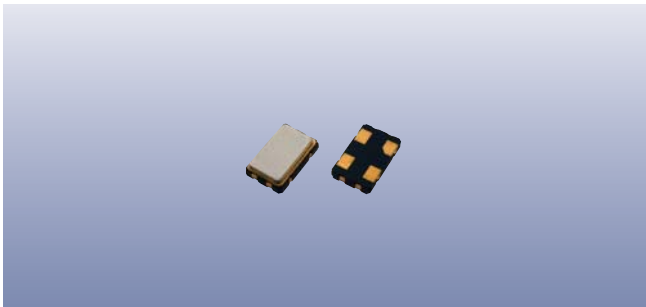




## Product Description

|                 |                                |
|-----------------|--------------------------------|
| Description:    | 24.5760MHz GVXO-523/SC SM VCXO |
| Product family: | GVXO-523                       |
| Category:       | VCXO                           |
| Order code:     | MP04163                        |

## Features

- Miniature SM package
- 3.3V supply
- Fundamental mode

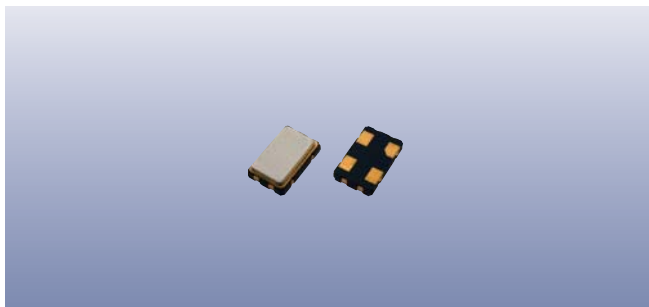
## Additional Information

For further information regarding packaging, construction, material composition, soldering profile and environment, please refer to **GVXO-523 Product Information sheet**

For dimensions, refer to package drawing: **D0266-A**

## Electrical Specifications

| Parameter                    | Value                                                        | Notes                  |
|------------------------------|--------------------------------------------------------------|------------------------|
| Nominal frequency:           | 24.5760MHz                                                   |                        |
| Frequency stability:         | ±25ppm max                                                   |                        |
| Frequency pullability:       | ±100ppm min                                                  |                        |
| Control voltage range:       | +1.65V                                                       | ±1.50V, 10% linearity. |
| Operating temperature range: | -20 to +70°C                                                 |                        |
| Storage temperature range:   | -40 to +85°C                                                 |                        |
| Supply voltage ( $V_{DD}$ ): | +3.3V                                                        | ±10%                   |
| Supply current:              | 15mA max                                                     |                        |
| Driving ability:             | 15pF CMOS                                                    |                        |
| Logic levels:                | '0' level = 10% $V_{DD}$ max<br>'1' level = 90% $V_{DD}$ min |                        |
| Waveform symmetry:           | 45:55 max                                                    | @50% $V_{DD}$          |
| Rise/fall times:             | 6ns max                                                      | 10% ~ 90% $V_{DD}$     |
| Start up time:               | 10ms max                                                     |                        |
| Period jitter RMS:           | 6ps max                                                      |                        |
| Phase jitter RMS:            | 1ps max                                                      | 12kHz ~ 20MHz          |
| Phase noise:                 | -130dBc/Hz typ @1kHz                                         |                        |
| Ageing:                      | ±5ppm max                                                    | First year             |



## Packaging & Handling

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



♦ Static sensitive product. Observe proper handling precautions

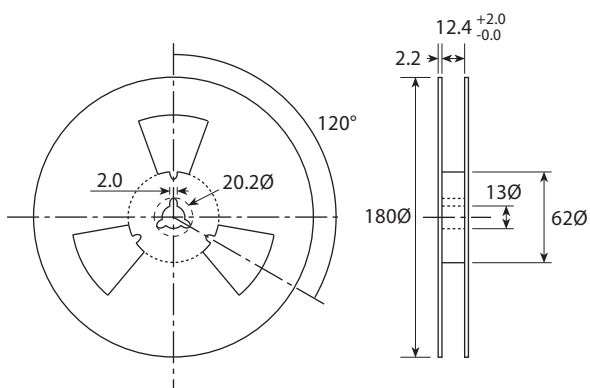
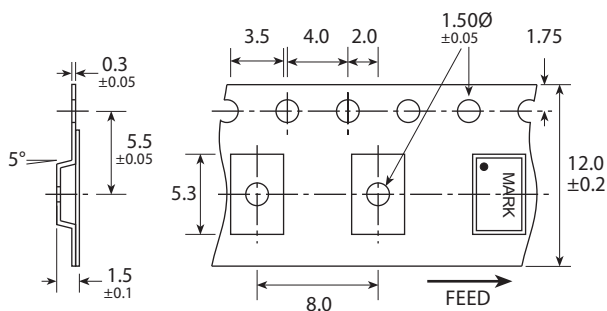
## Marking

FREQUENCY  
• PARTNO DC

• Pin 1  
Marking type: Laser  
DC = Date code in YM, eg "DE" = May 2014

|   | 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. Dimensions in mm. Tolerances  $\pm 0.1$ mm unless otherwise stated

## Construction

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

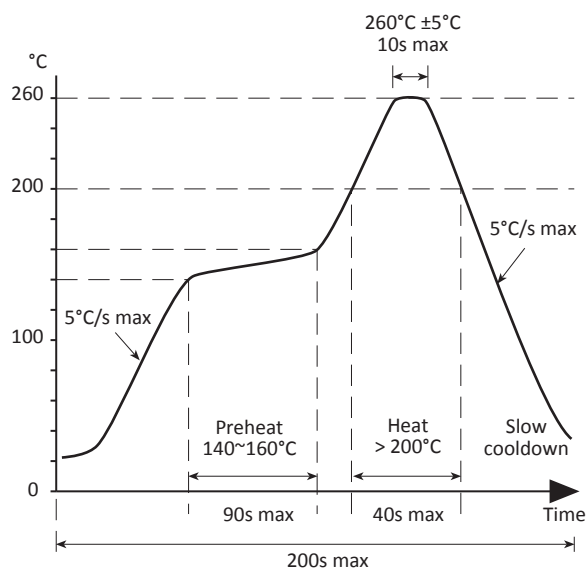
## Composition

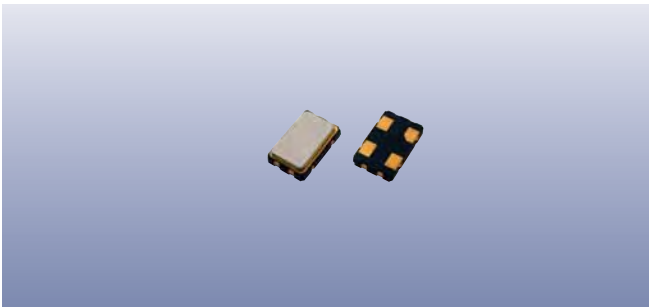


This product is lead-free, and is fully compliant with current RoHS directives



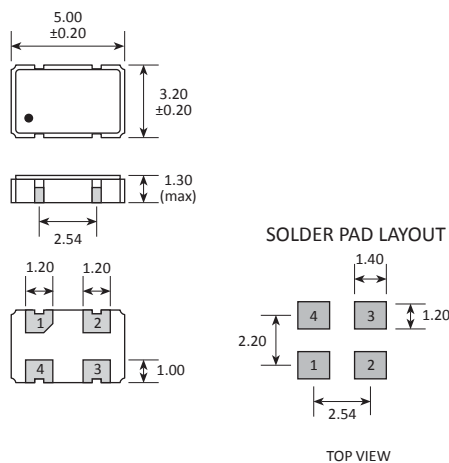
## Soldering Profile





| Product Family                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------|
| GVXO-523                                                                                                             |
| Construction                                                                                                         |
|  Ceramic body with gold-plated pads |
|  Metal lid, seam sealed             |

Dimensions (mm)



| PAD | CONNECTION      |
|-----|-----------------|
| 1   | Control voltage |
| 2   | Ground          |
| 3   | Output          |
| 4   | Supply          |