

Scale 3:1

## Specifications

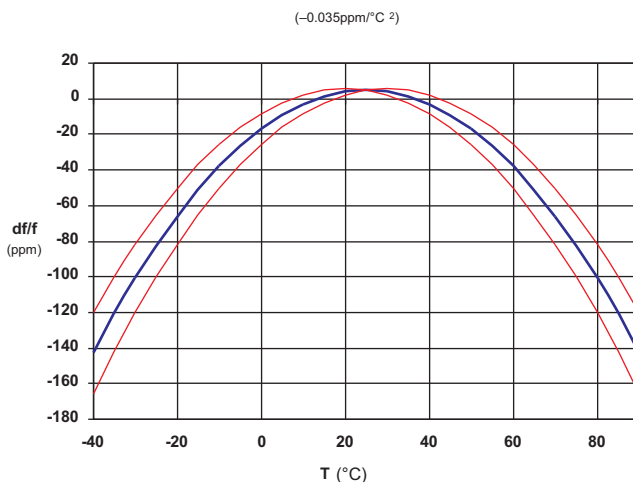
Parameters	Product	Option Codes
	GXO-4301	
Frequency:	32.7680kHz	■
Calibration tolerance: +5 ±20ppm (@ 25°C, V <sub>DD</sub> =3.3V)		■
Operating temperature range: -40 to +85°C		■
Storage temperature range: -55 to +125°C		■
Supply voltage (V <sub>DD</sub> ): 1.5 ~ 5.5V *2		■
Supply current: 1.5µA max (V <sub>DD</sub> = 3.3V, no load, -40 to +85°C)		■
Driving ability:	15pF CMOS	■
Output voltage: '0' level (I <sub>VOL</sub> ) = 0.4V max '1' level (I <sub>VOH</sub> ) = V <sub>DD</sub> -0.4V min		■ ■
Start up time: 1s max (V <sub>DD</sub> =1.5~5.5V, -40 to +85°C)		■
Rise / fall times: 200ns max (10%~90%V <sub>DD</sub> )		■
Waveform symmetry: 40:60 @ 50%V <sub>DD</sub>		■
Enable / disable function: Control via pad 1		■
Stand-by current: 250nA max @ 25°C		■

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

## Features

- ▶ **World's smallest 32.768kHz oscillator**
- ▶ **Extremely low power consumption**
- ▶ **Enable / disable function**
- ▶ **Competitive pricing**

## Temperature Characteristics



## Ordering Information

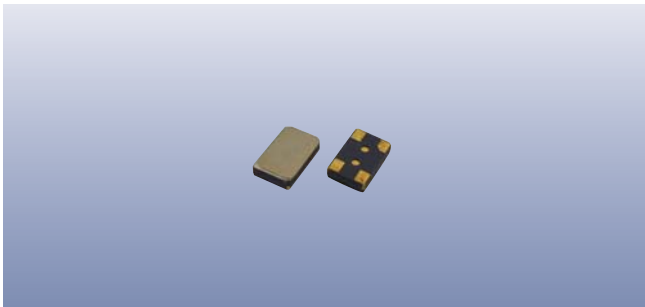
Product name + frequency  
 eg: **GXO-4301 32.768kHz**

- ◆\*1: With reference to the value at +25°C
- ◆\*2: Will operate on any supply voltage from +1.5V to +5.5V

## Enable / Disable Function

Input (pad 1)	Output (pad 3)
'1' level	Enabled
'0' level	High Impedance

Note: Pad 1 should not be allowed to float.



## 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



## 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.



◆ Static sensitive product. Observe proper handling precautions

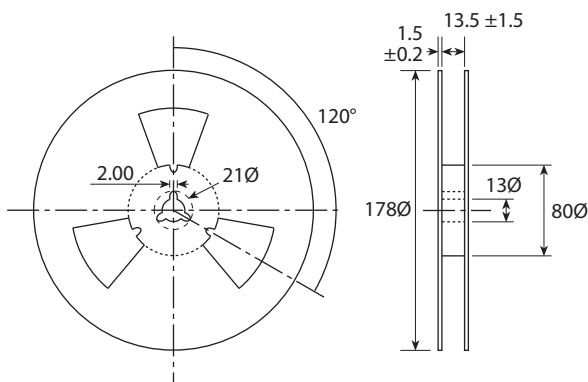
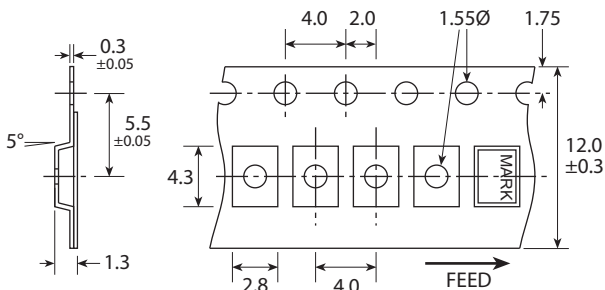
## Marking

FREQUENCY  
DC

Marking type: Laser  
DC = Date code in YM, eg "CE" = May 2003

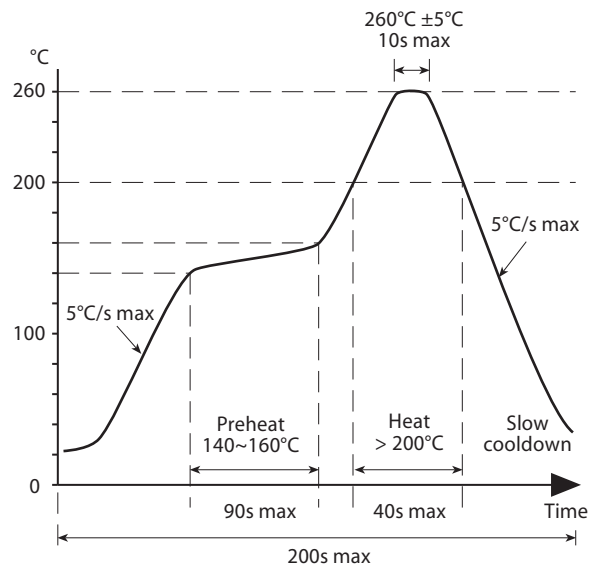
	A	B	C	D	E	F	G	H	J	K	L	M
Y	1	2	3	4	5	6	7	8	9	0		
M	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

## Tape & Reel Specification



Not to scale. Dimensions in mm. Tolerances ±0.1mm unless otherwise stated

## Soldering Profile



Solder resistance: 260°C x 10 secs x 2.