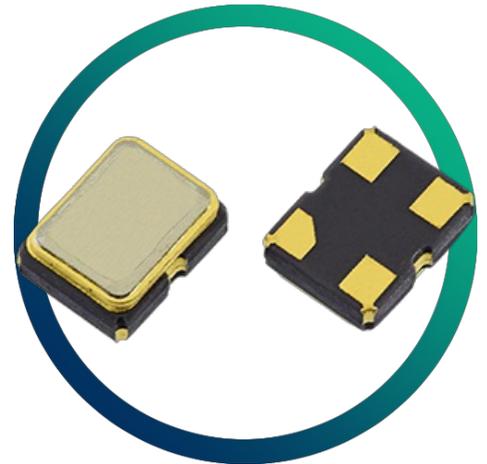


# GAO-3301

## 1.8~3.3V 32.768kHz Oscillator with 3225 Package



- Excellent temperature stability
- Low current consumption
- AT-cut resonator + dividing circuit
- Miniature ceramic package with metal lid
- Competitive pricing

### CONFIGURABLE OPTIONS

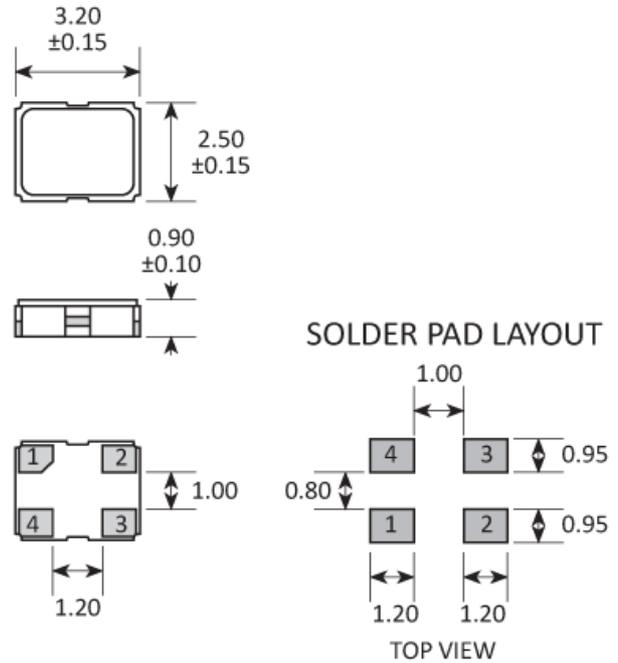
Parameter	Option Code
<b>Frequency stability</b>	
Any	
±25ppm	A
±50ppm	B
<b>Operating temperature range</b>	
Any	
-20 to +70°C	
-40 to +85°C	I

**The GAO-3301 has no configurable options.**

**Please see the specifications table for more details or contact our team today if you have other specification requirements.**

**SPECIFICATIONS**

Frequency	32.768kHz
Dimensions	3.2 x 2.5 x 1.0mm
Storage temperature range	-55 to +125°C
Supply voltage ( $V_{DD}$ )	Operable from +1.8 ~ +5.0V
Supply current (@ 15pF)	0.108mA typ, 0.200mA max (1.8V) 0.117mA typ, 0.200mA max (3.3V)
Driving ability	15pF CMOS
Logic levels	'0' level = 10% $V_{DD}$ max '1' level = 90% $V_{DD}$ min
Waveform symmetry	45:55 @ 50% $V_{DD}$
Rise / fall time	13ns typ 100ns max, 10 ~ 90% $V_{DD}$
Start up time	10ms max
Stand-by current	2 $\mu$ A typ, 10 $\mu$ A max
Ageing	$\pm$ 5ppm/yr max @ 25°C

**PACKAGE DRAWING**


PAD	CONNECTION
1	Enable/Disable
2	Ground
3	Output
4	Supply

Dimensions in mm

## ORDERING INFORMATION

To request a quotation for the GAO-3301 please use the configurable options form to choose the options you require and then submit your configured product to our team. Our expert advisers are always happy to help with your requirements and can be contacted on +44 1460 256 100 or at [sales@golledge.com](mailto:sales@golledge.com).

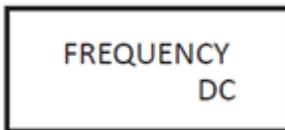
Following product selection you will be issued with a seven character Golledge part number. Your Golledge part number is the internationally accepted Golledge manufacturing part number (MPN) that should be used for all project documentation, including bills of materials (BoMs) and purchase orders.

If you have any queries regarding any of our documentation our dedicated sales team will be happy to help.

## ENABLE / DISABLE FUNCTION

Input (pad 1)	Output (pad 3)
Open	Enabled
'1' level ( $V_{IH}=70\% V_{DD}$ min)	Enabled
'0' level ( $V_{IL}=30\% V_{DD}$ min)	High Impedance

## MARKING

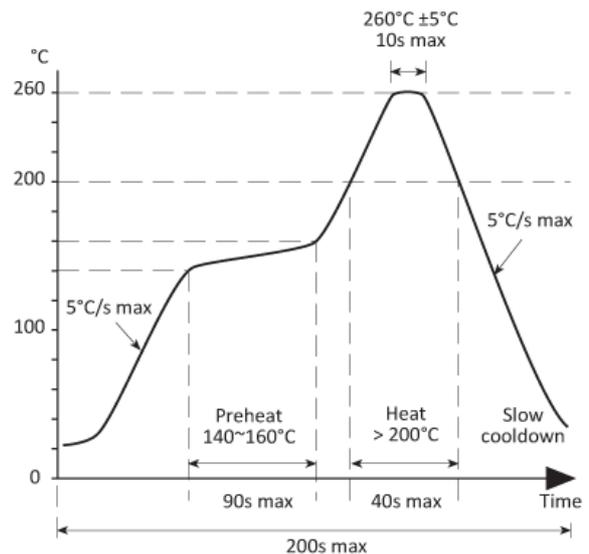


Marking type: Laser

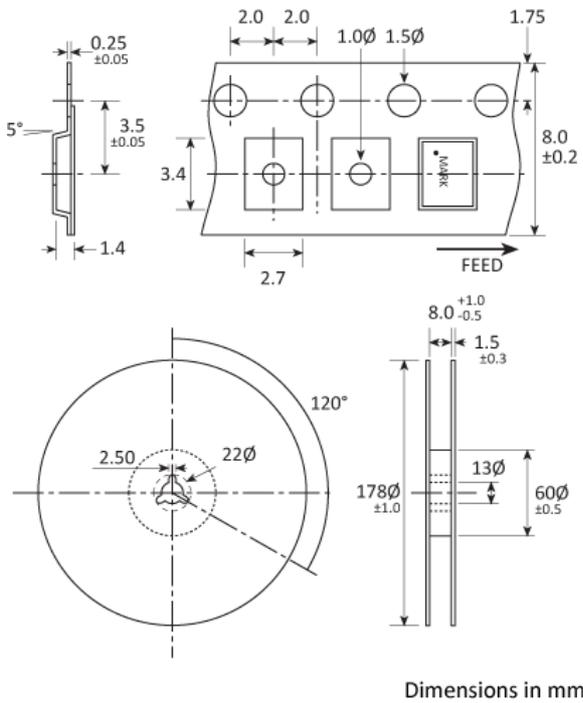
DC = Date Code in YM, eg. "GF" = Jun 2017

	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

## SOLDERING PROFILE



**TAPE & REEL SPECIFICATION**



**CONSTRUCTION**

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

**HANDLING & STORAGE**



Human Body Model (HBM) 1A (250V to <500V)



Moisture Sensitivity Level (MSL): 1 (or not applicable)

**COMPLIANCE**



Lead-free (< 0.1% by weight)



RoHS compliant with no exemptions. [See our declaration](#)



REACH compliant. [See our statement](#)



Free of conflict minerals. [See our declaration](#)



Free of Halogens. [See our declaration](#)



Free of Ozone-depleting substances. [See our declaration](#)