

GTXO-C31J

2.5V Low Power SM TCXO with CMOS Output

- 2.5V supply voltage
- Low power consumption
- Enable / disable tristate function
- Low phase noise and jitter
- Excellent frequency stability



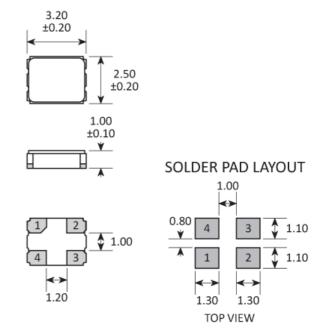
CONFIGURABLE OPTIONS	
Parameter	Option Code
Frequency	
Temperature stability	
Any	
±3.0ppm max	К
±2.5ppm max	J
Temperature range	
Any	
0 to +50°C	R
-10 to +60°C	С
-20 to +70°C	N
-30 to +75°C	S
-40 to +85°C	I



SPECIFICATIONS

Frequency range Dimensions 3.2 x 2.5 x 1.1mm Calibration tolerance Storage temperature range Ageing ±1.0ppm max first year Supply +2.5V (±5%) voltage (V _{DD}) Supply 3.1mA max, 4.0 ~ 10.0MHz current 3.7mA max, >10.0 ~ 20.0MHz 4.2mA max, >20.0 ~ 30.0MHz 4.6mA max, >30.0 ~ 40.0MHz 5.5mA max, >40.0 ~ 54.0MHz Frequency vs supply voltage Driving 15pF CMOS ability Logic levels '0' level = 10%V _{DD} max '1' level = 90%V _{DD} min Waveform 45:55 @ 50%V _{DD} Symmetry Rise / fall 5ns max time Frequency vs load Enable / Tristate (control via pad 1) disable function Standby 10μA max current Phase noise -145dBc/Hz @ 10kHz (typ) Period jitter RMS	_	
Dimensions 3.2 x 2.5 x 1.1mm Calibration tolerance Storage -40 to +125°C temperature range Ageing ±1.0ppm max first year Supply +2.5V (±5%) Voltage (V _{DD}) Supply 3.1mA max, 4.0 ~ 10.0MHz 3.7mA max, >10.0 ~ 20.0MHz 4.2mA max, >20.0 ~ 30.0MHz 4.6mA max, >30.0 ~ 40.0MHz 5.5mA max, >40.0 ~ 54.0MHz Frequency vs supply voltage Driving 15pF CMOS ability Logic levels '0' level = 10%V _{DD} max	1	4.0 ~ 54.0MHz
Calibration tolerance±2.0ppm @ +25°C ±3°C 60mins after reflowStorage temperature range-40 to +125°CAgeing Supply voltage (V _{DD})±1.0ppm max first yearSupply current3.1mA max, 4.0 ~ 10.0MHz 3.7mA max, >10.0 ~ 20.0MHz 4.2mA max, >20.0 ~ 30.0MHz 4.6mA max, >30.0 ~ 40.0MHz 5.5mA max, >40.0 ~ 54.0MHzFrequency vs supply voltage±0.2ppm, V _{DD} ±5%Driving ability15pF CMOS abilityLogic levels '0' level = 10%V _{DD} max '1' level = 90%V _{DD} minWaveform symmetry45:55 @ 50%V _{DD} Rise / fall time5ns max ±0.2ppm, Z _L ±10% vs loadEnable / disable functionTristate (control via pad 1)Standby current10µA max currentPhase noise (typ)-145dBc/Hz @ 10kHz (typ)		
tolerance Storage		
Storage temperature range Ageing ±1.0ppm max first year Supply +2.5V (±5%) voltage (V _{DD}) Supply 3.1mA max, 4.0 ~ 10.0MHz current 3.7mA max, >10.0 ~ 20.0MHz 4.2mA max, >20.0 ~ 30.0MHz 4.6mA max, >30.0 ~ 40.0MHz 5.5mA max, >40.0 ~ 54.0MHz Frequency ±0.2ppm, V _{DD} ±5% vs supply voltage Driving 15pF CMOS ability Logic levels '0' level = 10%V _{DD} max '1' level = 90%V _{DD} min Waveform 45:55 @ 50%V _{DD} symmetry Rise / fall 5ns max time Frequency ±0.2ppm, Z _L ±10% vs load Enable / Tristate (control via pad 1) disable function Standby 10µA max current Phase noise -145dBc/Hz @ 10kHz (typ) Period jitter 3ps typ	Calibration	±2.0ppm @ +25°C ±3°C 60mins after reflow
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Frequency		4.6mA max, >30.0 ~ 40.0MHz
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symmetry Rise / fall 5ns max time Frequency ±0.2ppm, Z _L ±10% vs load Enable / Tristate (control via pad 1) disable function Standby 10µA max current Phase noise -145dBc/Hz @ 10kHz (typ) Period jitter 3ps typ	Waveform	45:55 @ 50%V _{DD}
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Frequency ±0.2ppm, Z _L ±10% vs load Enable / Tristate (control via pad 1) disable function Standby 10µA max current Phase noise -145dBc/Hz @ 10kHz (typ) Period jitter 3ps typ	Rise / fall	5ns max
vs load Enable / Tristate (control via pad 1) disable function Standby 10µA max current Phase noise -145dBc/Hz @ 10kHz (typ) Period jitter 3ps typ	time	
vs load Enable / Tristate (control via pad 1) disable function Standby 10µA max current Phase noise -145dBc/Hz @ 10kHz (typ) Period jitter 3ps typ	Frequency	±0.2ppm, Z _L ±10%
disable function Standby 10µA max current Phase noise -145dBc/Hz @ 10kHz (typ) Period jitter 3ps typ		• •
disable function Standby 10µA max current Phase noise -145dBc/Hz @ 10kHz (typ) Period jitter 3ps typ	Enable /	Tristate (control via pad 1)
Standby 10µA max current Phase noise -145dBc/Hz @ 10kHz (typ) Period jitter 3ps typ	disable	•
current Phase noise -145dBc/Hz @ 10kHz (typ) Period jitter 3ps typ	function	
current Phase noise -145dBc/Hz @ 10kHz (typ) Period jitter 3ps typ	Standby	10μA max
(typ) Period jitter 3ps typ		·
(typ) Period jitter 3ps typ	Phase noise	-145dBc/Hz @ 10kHz
Period jitter 3ps typ	(typ)	_
		3ps typ
	RMS	• •

PACKAGE DRAWING



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

Dimensions in mm



ORDERING INFORMATION

To request a quotation for the GTXO-C31J 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.

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	Enabled				
'0' level	High Impedance				

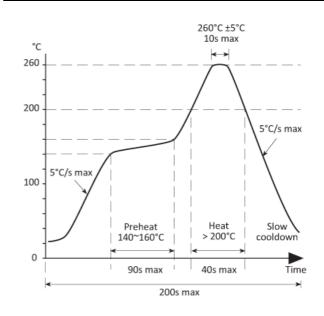
MARKING

S FREQUENCY CTO DC Marking type: Laser

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

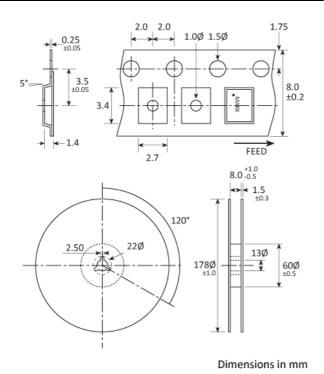
	Α	В	С	D	Ε	F	G	Н	J	K	L	M
Υ	1	2	3	4	5	6	7	8	9	0		
М	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

SOLDERING PROFILE





TAPE & REEL SPECIFICATION



HANDLING & STORAGE



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



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

CONSTRUCTION

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

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. <u>See our</u>

declaration