

Features

- ▶ Supply voltages from 2.5V ~ 3.3V
- ▶ Low power consumption
- ▶ Enable / disable tristate function
- ▶ Low phase noise and jitter
- ▶ Excellent frequency stability

Enable / Disable Function

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

Specifications

GTXO-C51J: 2.5V supply

GTXO-C51K: 2.8V supply

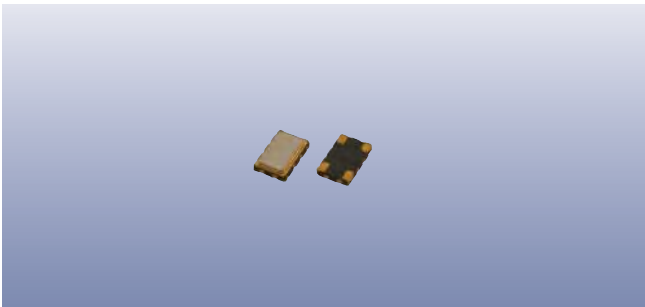
GTXO-C51L: 3.3V supply

| Parameters | Variant | | | Option Codes |
|--|---------------------------------|---------------------------------|---------------------------------|-----------------------|
| | J | K | L | |
| Frequency range: 4.0 ~ 54.0MHz | ■ | ■ | ■ | |
| Calibration tolerance: ±0.5ppm @ +25°C ±2°C | ■ | ■ | ■ | |
| Temperature stability: ±3.0ppm ±2.5ppm | □ | □ | □ | K J |
| Temperature range: 0 to +50°C -10 to +60°C -20 to +70°C -30 to +75°C -40 to +85°C | □ | □ | □ | R C N S I |
| Storage temperature range: -40 to +125°C | ■ | ■ | ■ | |
| Ageing: ±1.0ppm max first year | ■ | ■ | ■ | |
| Supply voltage (V _{DD}): +2.5V (±5%) +2.8V (±5%) +3.3V (±5%) | ■ | ■ | ■ | |
| Supply current (mA): 4.0 ~ 10.0MHz >10.0 ~ 20.0MHz >20.0 ~ 30.0MHz >30.0 ~ 40.0MHz >40.0 ~ 54.0MHz | 3.1 3.7 4.2 4.6 5.5 | 3.4 4.1 4.7 5.2 6.0 | 4.0 4.8 5.5 6.0 7.0 | |
| Frequency vs supply voltage: ±0.2ppm, V _{DD} ±5% | ■ | ■ | ■ | |
| 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: 5ns max | ■ | ■ | ■ | |
| Frequency vs load: ±0.2ppm, Z _L ±10% | ■ | ■ | ■ | |
| Enable / disable function: Tristate (control via pad 1) | ■ | ■ | ■ | |
| Standby current: 10µA max | ■ | ■ | ■ | |
| Phase noise (typ): -145dBc/Hz @ 10kHz | ■ | ■ | ■ | |
| Period jitter RMS: 3ps typ | ■ | ■ | ■ | |

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

Ordering Information

Product name + variant + option codes + frequency
 Option codes must be included to properly specify a model.
 eg: **GTXO-C51L/JS 24.00MHz** 3.3V supply, ±2.5ppm -30+75°C
GTXO-C51K/KN 40.00MHz 2.8V supply, ±3.0ppm -20+70°C
 Option code X (eg GTXO-C51L/X) denotes a custom spec.



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 pcs per reel.
Small quantities may be supplied on tape (no reel), or in bulk.



◆ Static sensitive product. Observe proper handling precautions

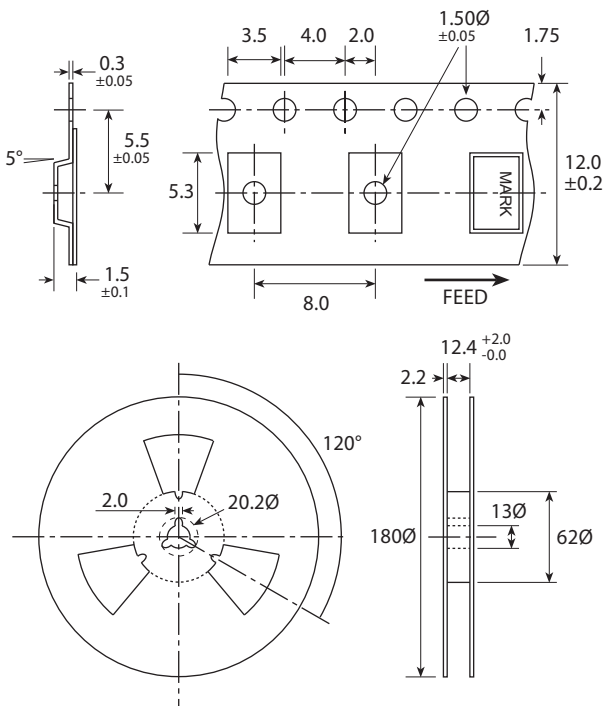
Marking

| | |
|-----------|----|
| S | DC |
| FREQUENCY | |

Marking type: Laser
DC = Date code in YM, eg "KB" = Feb 2010

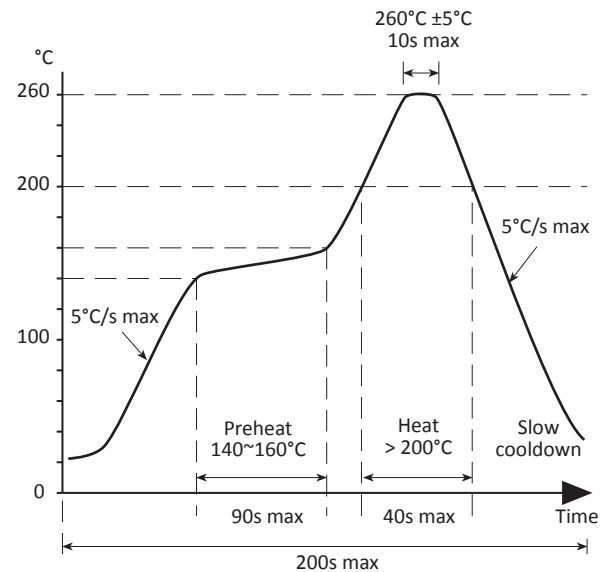
| | | | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | A | B | C | D | E | F | G | H | J | K | L | M |
| Y | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | | |
| M | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |

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.