

CFPT-101, -102, -103

ISSUE 4; 19 OCTOBER 2004

Delivery Options

- Please contact our sales office for current leadtimes

Description

- CFPT-101, -102, -103 are surface mount temperature compensated voltage controlled crystal oscillators (TCVCXOs) providing a high degree of frequency stability over a wide temperature range

Package Outline

- 11.4 × 9.6 × 2.5mm SMD

Output Waveform

- Clipped Sine 0.7V peak to peak minimum (10kΩ\10pF)

Ageing

- ±1ppm typical first year @ 25°C

Frequency Adjustment

- ±2ppm minimum internal trimmer adjustment (CFPT-101, 103)

Frequency Stability

- Temperature: see table
- Supply Voltage Variation: ±5% ±0.3ppm max
- Load Variation: (10kΩ\10pF) ±10% ±0.2ppm max
- After Reflow: ±1ppm max

Voltage Control

- 1.5V ±1.0V applied to pad 1 (CFPT-102, -103)

Storage Temperature Range

- -40 to 85°C

Solder Conditions

- For typical soldering conditions, please see the relevant pages in Applications Notes

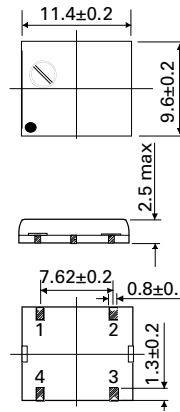
Marking

- Model number
- Frequency Stability Code/Temperature Range Code
- Frequency
- Date Code (Year/Week)

Minimum Order Information Required

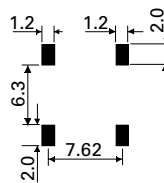
- Frequency + Model Number + Frequency Stability + Operating Temperature

Outline in mm - CFPT-101

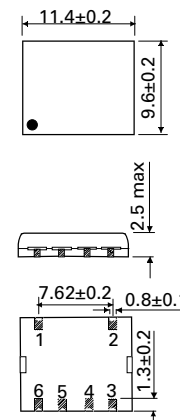


Pad Connection

1. N/C
2. GND
3. Output
4. +Vs



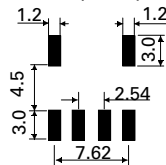
Outline in mm - CFPT-102



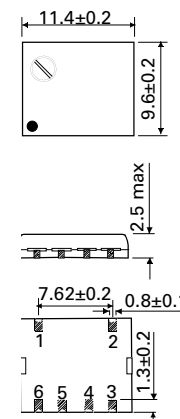
Pad Connections

1. GND
2. GND
3. Output
4. GND
5. Voltage Control
6. +Vs

Solder pad layout



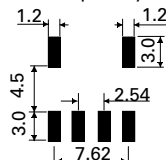
Outline in mm - CFPT-103



Pad Connections

1. GND
2. GND
3. Output
4. GND
5. Voltage Control
6. +Vs

Solder pad layout



Electrical Specifications - maximum limiting values when measured in test circuit

Frequency Range	Frequency Tolerance @ 25°C	Supply Voltage	Supply Current	Voltage Control Change	Output Waveform	Output	Model Number
12.6 to 19.8MHz	±0.5ppm	3V±0.15V	2.0mA	—	Clipped Sine	0.7Vpk-pk min	CFPT-101
12.6 to 19.8MHz	±2.5ppm	3V±0.15V	2.0mA	±8.0ppm to ±14.0ppm max. / 1.5V±1.0V	Clipped Sine	0.7Vpk-pk min	CFPT-102
12.6 to 19.8MHz	±0.5ppm	3V±0.15V	2.0mA	±5.0ppm to ±10.0ppm max. / 1.5V±1.0V	Clipped Sine	0.7Vpk-pk min	CFPT-103

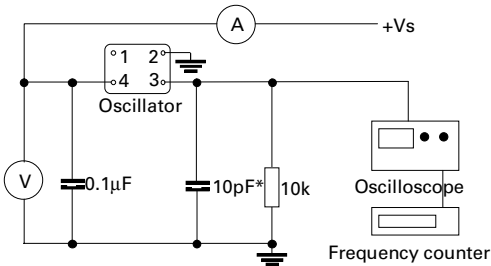
Frequency Stabilities Available Over Operating Temperature Ranges

Operating Temperature Ranges	Frequency Stabilities Vs Operating Temperature Range	
	±2.5ppm	±5.0ppm
–20 to 70°C	Code HS	Code KS
–25 to 75°C	Code HT	Code KT
–30 to 75°C	Code HU*	Code KU

*Please note Code HU is the standard frequency stability vs operating temperature range

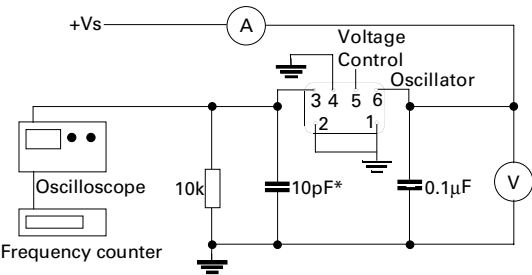
Ordering Example	12.60MHz	CFPT-102	HU
Frequency_____			
Model number_____			
Frequency Stability Vs Operating Temperature Code_____			

Test Circuit - CFPT-101



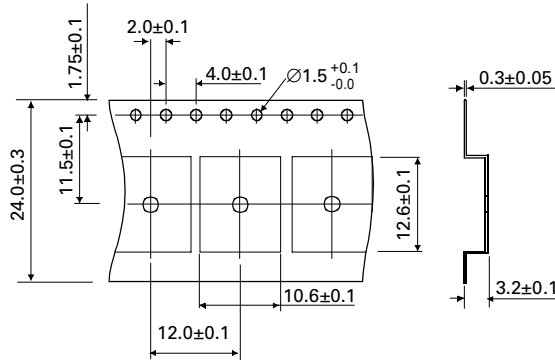
*Inclusive of jigging & equipment capacitance

Test Circuit - CFPT-102, -103

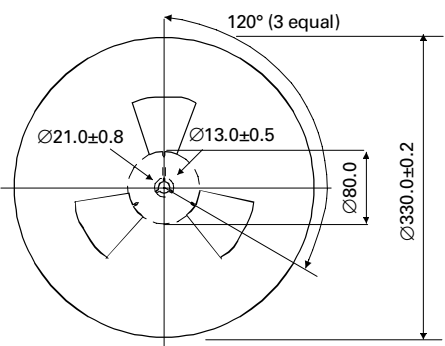


*Inclusive of jigging & equipment capacitance

Outline in mm - Tape



Outline in mm - Reel



SURFACE MOUNT
TCXOs