

CFPT-105

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Delivery Options

- Common frequencies are available from stock. Please see p224 for details.

Description

- CFPT-105 is a surface mount temperature compensated voltage controlled crystal oscillator providing a high degree of frequency stability over a wide temperature range. They are particularly suited to applications where space is at a premium.

Package Outline

- 9.0 × 7.0 × 2.0mm SMD (surface mount device)

Standard Frequencies

- 12.60MHz, 12.80MHz, 13.0MHz, 14.40MHz, 14.850MHz, 16.80MHz, 19.20MHz, 19.440MHz, 19.680MHz, 19.80MHz

Output Waveform

- Clipped Sine 0.8V peak to peak minimum

Ageing

- ±1ppm max first year @ 25°C

Frequency Adjustment

- ±9ppm to ±15ppm external control voltage at 1.5V ±1.0V applied to pin 1

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 pin 1

Storage Temperature Range

- 40 to 85°C

Phase Noise @ 1kHz

- 140dBc/Hz min.

Harmonic Distortion

- 5.0dBc max.

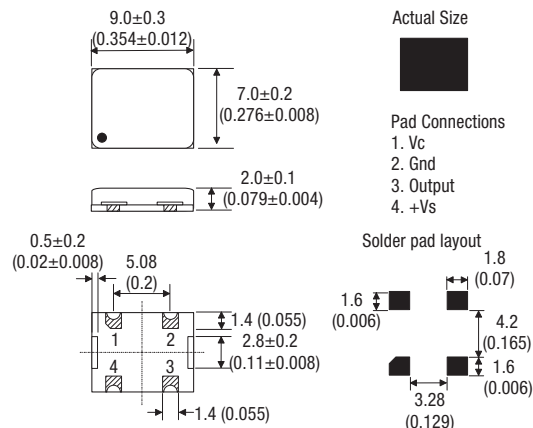
Marking

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

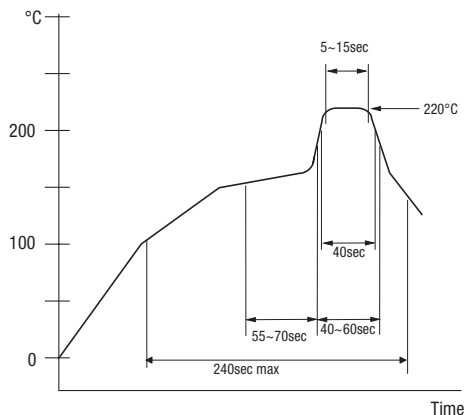
Minimum Order Information Required

- Frequency + Model Number + Frequency Stability + Operating Temperature Range

Outline in mm (inches) - (scale 1.5:1)



Typical Solder Condition - Infrared Reflow



Electrical Specification - maximum limiting values when measured in test circuit

Frequency Range	Frequency Tolerance @ 25°C	Supply Voltage	Supply Current	Voltage Control change	Output Waveforms	Output	Model Number
12.6 to 19.8MHz	±2.5ppm	3V±0.15V	2.0mA	±9.0ppm to ±15.0ppm / 1.5V±1.0V	Clipped Sine	0.8Vp-p min	CFPT-105

Frequency Stabilities Available Over Operating Temperature Ranges

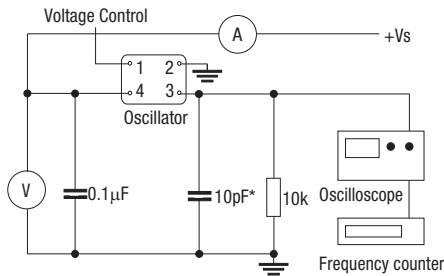
Operating Temperature Ranges	Frequency Stabilities Vs Operating Temperature Range		
	±2.0ppm	±2.5ppm	±5.0ppm
0 to 50°C	Code GP	Code HP	Code KP
-10 to 60°C	Code GR	Code HR	Code KR
-20 to 75°C	—	Code HG*	Code KG
-30 to 75°C	—	—	Code KU

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

Ordering Example

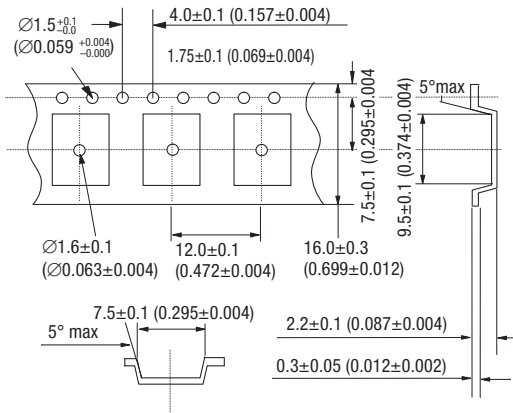
Frequency _____ 15.0MHz CFPT-105 HG
Model No _____
Frequency Stability Vs Operating Temperature Code _____

Test Circuit



*Inclusive of jigging & equipment capacitance

Outline in mm (inches) - Tape



Outline in mm (inches) - Reel (scale 1:8)

