

CFPV-59, -60 SMD VCXOs

ISSUE 3; 1 NOVEMBER 2008 - RoHS 2002/95/EC

Description

- A range of surface mount voltage controlled oscillators (VCXOs) in a hermetically sealed ceramic package

Package Outline

- 5 x 3.2mm

Frequency Range

- 2 to 52MHz

Output Compatibility & Load

- HCMOS
- Drive Capability: 15pF max

Frequency Stabilities

- ± 25 ppm, ± 50 ppm, ± 100 ppm (inclusive of frequency tolerance, stability over temperature range, $\pm 5\%$ load variation and $\pm 5\%$ supply voltage variation)

Operating Temperature Range

- 10 to 70°C

Storage Temperature Range

- 40 to 85°C

Tri-state operation

- Logic '1' (>70%Vs) to pad 6 enables oscillator output
- Logic '0' (<30%Vs) to pad 6 disables oscillator output; when disabled the oscillator output goes to the high impedance state.
- No connection to pad 6 enables oscillator output

Supply Voltage

- 3.3V CFPV-59
- 5.0V CFPV-60

Voltage Control (pad 1)

- 1.65V \pm 1.5V (CFPV-59)
- 2.5V \pm 2.0V (CFPV-60)

Pullability

- ± 100 ppm min

Linearity

- Positive < $\pm 10\%$

Input Impedance Voltage Control (pad 1)

- 100k Ω typ.

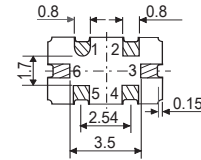
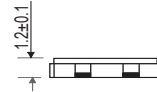
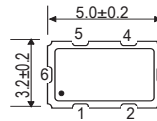
Modulation Bandwidth

- >20kHz

Phase Noise (max)

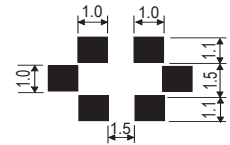
- 65dBc/Hz @ 10Hz
- 98dBc/Hz @ 100Hz
- 125dBc/Hz @ 1kHz
- 135dBc/Hz @ 10kHz
- 145dBc/Hz @ 100kHz

Outline (mm)

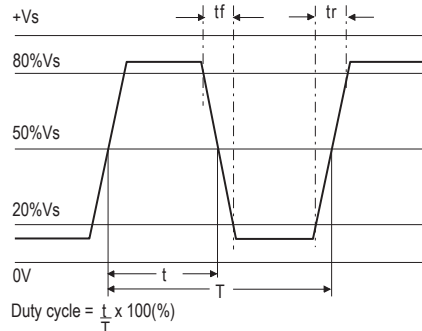


- Pad Connections
- Voltage Control
 - GND
 - GND or N/C
 - Output
 - +Vs
 - Enable/Disable

Solder pad layout



Output Waveform



Marking Includes

- Model Number + Frequency

Packaging

- Bulk or Tape & Reel

Minimum Order Information Required

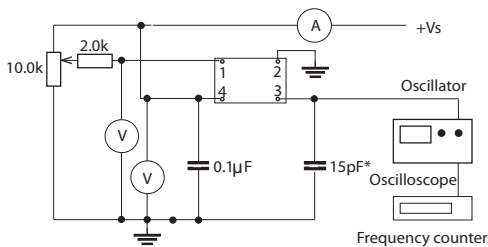
- Frequency + Operating Temperature Code (if applicable) + Model Number + Frequency Stability

Electrical Specification - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Pullability	Rise Time (tr) (20-80%)	Fall Time (tf) (80-20%)	Duty Cycle	Model Number
2.0 to 30.0MHz	±25ppm, ±50ppm, ±100ppm	3.3V ±5%	15mA	±100ppm min	5ns	5ns	40/60%	CFPV-59
>30.0 to 52.0MHz			25m					CFPV-60
2.0 to 30.0MHz	±25ppm, ±50ppm, ±100ppm	5.0V ±5%	15mA	±100ppm min	5ns	5ns	40/60%	CFPV-59
>30.0 to 52.0MHz			25mA					CFPV-60

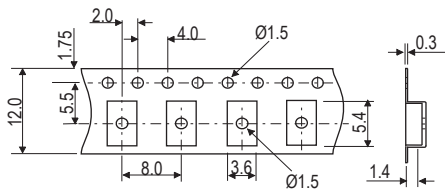
Ordering Example 3.0MHz CFPV-59 B
 Frequency _____
 Model No. _____
 Frequency Stability _____

Test Circuit

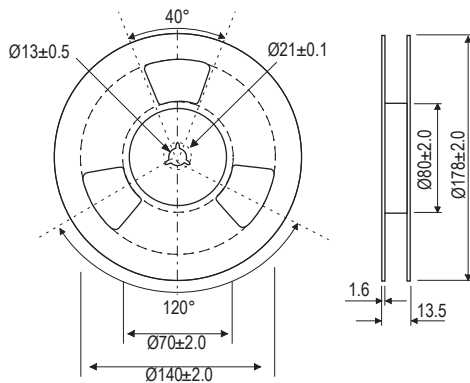


*Inclusive of jiggig and equipment capacitance

Tape (mm)



Reel (mm)



VCXOs