# CFPV-41, -42, -43, -44

**ISSUE 1; 14 OCTOBER 1999**

### Delivery Options

- Common frequencies are available from stock. Please see p207 for details

### Output Compatibility

- Tri-state HCMOS

### Description

- CFPV-41, -42, -43, -44 are surface mount voltage controlled crystal oscillators providing a high degree of frequency stability over a wide temperature range. It is particularly suited to applications where space is at a premium

### Package Outline

- 7.5 × 5.0 × 1.9mm SMD (surface mount device)

### Standard Frequencies

- 2.048MHz, 4.096MHz, 8.192MHz, 10.0MHz, 12.288MHz, 16.384MHz, 19.44MHz, 20.48MHz, 24.576MHz, 26.0MHz, 28.6363MHz, 32.768MHz, 34.368MHz, 34.816MHz, 38.880MHz, 40.960MHz, 44.7360MHz, 49.152MHz, 50.0MHz, 51.84MHz

### Standard Frequency Stabilities

- ±25ppm, ±50ppm, ±100ppm (inclusive of supply voltage & output load variations over the operating temperature range)

### Operating Temperature Range

- –10 to 70°C

### Storage Temperature Range

- –40 to 85°C

### Voltage Control Pin 1

- 2.5V±2.0V (CFPV-41, -43)
- 1.65V±1.5V (CFPV-42, -44)

### Linearity

- <±10%

### Modulation Bandwidth

- >20kHz

### Start up Time

- 10mS max.

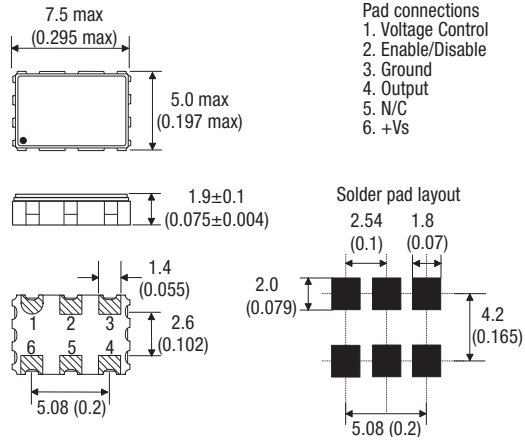
### Marking

- Model number
- Frequency Stability Code
- Frequency

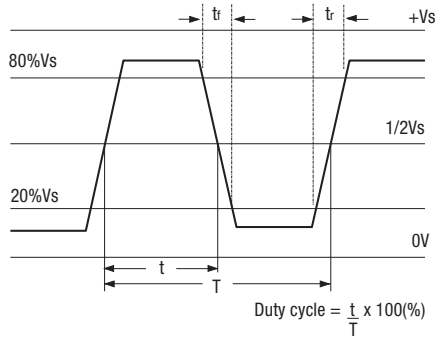
### Minimum Order Information Required

- Frequency + Model Number + Frequency Stability

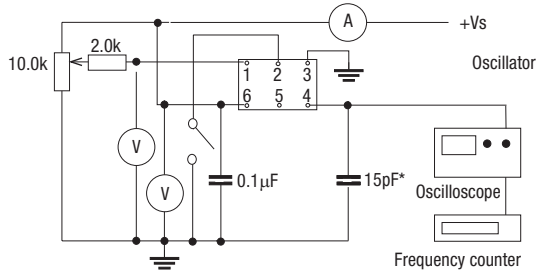
### Outline in mm (inches) - (scale 2:1)




### Output Waveform - HCMOS




### Test Circuit




*Inclusive of jigging & equipment capacitance

SURFACE MOUNT VCXOs

**Electrical Specification - maximum limiting values when measured in test circuit**

| Frequency Range | Frequency Stability | Supply Voltage | Supply Current | Output Frequency Change | Rise Time ($t_r$) | Fall Time ($t_f$) | Duty Cycle | Model Number |
|---|---|---|---|---|---|---|---|---|
| 1.0 to 18.0MHz | ±25ppm, ±50ppm, ±100ppm | 5V±0.25V | 20mA | ±50ppm min | 5ns | 5ns | 40/60% | CFPV-41 |
| | | | | ±100ppm min | | | | CFPV-43 |
| | | 3.3V±0.16V | 15mA | ±50ppm min | | | | CFPV-42 |
| | | | | ±100ppm min | | | | CFPV-44 |
| >18.0 to 30.0MHz | ±25ppm, ±50ppm, ±100ppm | 5V±0.25V | 30mA | ±50ppm min | 5ns | 5ns | 40/60% | CFPV-41 |
| | | | | ±100ppm min | | | | CFPV-43 |
| | | 3.3V±0.16V | 15mA | ±50ppm min | | | | CFPV-42 |
| | | | | ±100ppm min | | | | CFPV-44 |
| >30.0 to 36.0MHz | ±25ppm, ±50ppm, ±100ppm | 5V±0.25V | 30mA | ±50ppm min | 5ns | 5ns | 40/60% | CFPV-41 |
| | | | | ±100ppm min | | | | CFPV-43 |
| | | 3.3V±0.16V | 25mA | ±50ppm min | | | | CFPV-42 |
| | | | | ±100ppm min | | | | CFPV-44 |
| >36.0 to 45.0MHz | ±25ppm, ±50ppm, ±100ppm | 5V±0.25V | 40mA | ±50ppm min | 5ns | 5ns | 40/60% | CFPV-41 |
| | | | | ±100ppm min | | | | CFPV-43 |
| | | 3.3V±0.16V | 25mA | ±50ppm min | | | | CFPV-42 |
| | | | | ±100ppm min | | | | CFPV-44 |
| >45.0 to 52.0MHz | ±25ppm, ±50ppm, ±100ppm | 5V±0.25V | 40mA | ±50ppm min | 5ns | 5ns | 40/60% | CFPV-41 |
| | | | | ±100ppm min | | | | CFPV-43 |

**Ordering Example** 13.0MHz CFPV-43 B

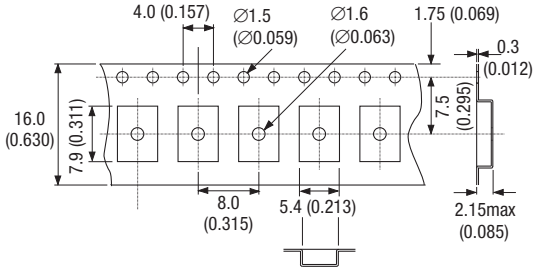
Frequency

Model No

Frequency Stability: A = ±25ppm; B = ±50ppm; C = ±100ppm



**Outline in mm (inches) - Tape**




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