

# CFPS-67, -68, -69 SMD CLOCK OSCILLATORS

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## Description

- Low current surface mount oscillators in a ceramic package with a hermetically sealed metal lid available in a range of voltages

## Package Outline

- 5 x 3.2mm

## Frequency Range

- 1.8MHz to 50MHz

## Output Compatibility & Load

- Tri-state CMOS
- Drive Capability 15pF max

## Frequency Stabilities

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

## Operating Temperature Ranges

- 10 to 70°C (CFPS-67, -68, -69)
- 40 to 85°C (CFPS-67I, -68I, -69I)

## Storage Temperature Range

- 55 to 125°C

## Tri-state Operation

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

## Supply Voltage

- 2.5V CFPS-67
- 2.8V CFPS-68
- 3.3V CFPS-69

## Standby Current

- 1µA max

## Environmental

- Shock: MIL-STD-202F, Method 213B (1000G, 0.5ms 1/2 sine wave)
- Vibration: MIL-STD-202F, Method 204D, Test condition D 20G (10-2000Hz, 4 hrs X, Y & Z axes, total 12 hrs)

## Marking Includes

- Model Number + Frequency

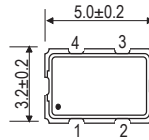
## Packaging

- Bulk or Tape and Reel

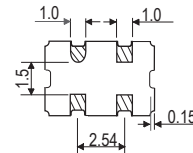
## Minimum Order Information Required

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

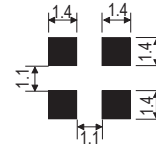
## Outline (mm)



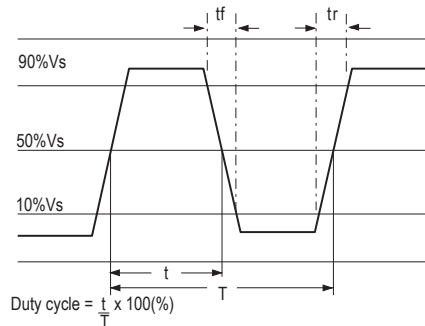
- Pad Connections
1. Enable/Disable
  2. GND
  3. Output
  4. +Vs



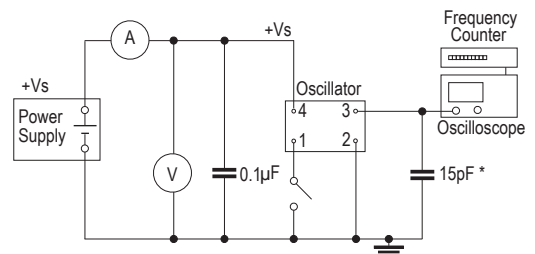
## Solder pad layout



## Output Waveform



## Test Circuit



\* Inclusive of jigging and equipment capacitance

### Electrical Specifications - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr)	Fall Time (tf)	Duty Cycle	Model Number
1.8 to <32.0MHz	±25ppm*, ±50ppm, ±100ppm	2.5V ±5%	3.5mA	12ns	12ns	45/55%	CFPS-67
32.0 to 50.0MHz			4.5mA				CFPS-671
1.8 to <32.0MHz		2.8V ±5%	4.0mA				CFPS-68
32.0 to 50.0MHz			5.0mA				CFPS-681
1.8 to <32.0MHz		3.3V ±5%	4.5mA				CFPS-69
32.0 to 50.0MHz			6.0mA				CFPS-691

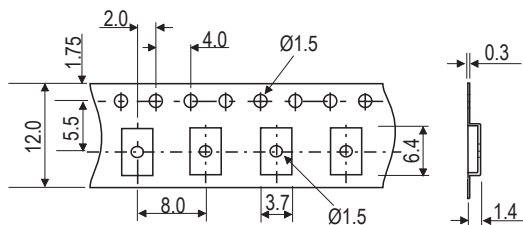
Ordering Example 24.0MHz CFPS-69 | C  
 Frequency \_\_\_\_\_  
 Model No. \_\_\_\_\_  
 Operating Temperature Code: I = -40 to 85°C; not applicable for -10 to 70°C \_\_\_\_\_  
 Frequency Stability: A = ±25ppm, B = ±50ppm, C = ±100ppm \_\_\_\_\_

\*Note - Code IA, ±25ppm over -40 to 85°C is not available

Please note that the rise and fall times listed are the maximum values we specify to cover various frequency breaks. In practice the actual values are generally lower depending upon the spot frequency chosen. For typical values please contact our sales office.

CLOCK  
OSCILLATORS

**Tape (mm)**



**Reel (mm)**

