

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

ISSUE 4; 1 NOVEMBER 2008 - RoHS 2002/95/EC

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

- $\pm 25\text{ppm}$, $\pm 50\text{ppm}$, $\pm 100\text{ppm}$ (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

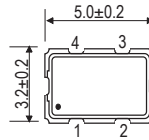
Packaging

- Bulk or Tape and Reel

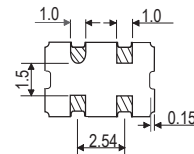
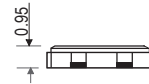
Minimum Order Information Required

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

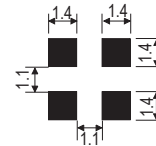
Outline (mm)



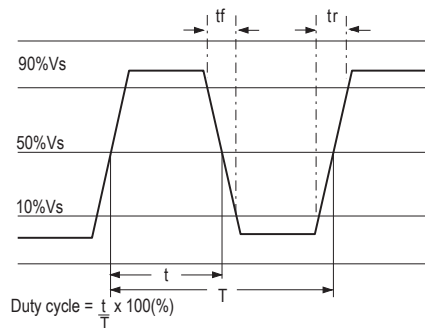
- Pad Connections
1. Enable/Disable
 2. GND
 3. Output
 4. +Vs



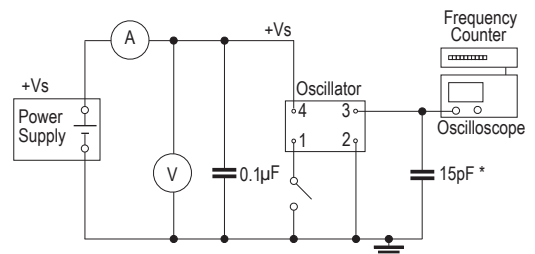
Solder pad layout



Output Waveform



Test Circuit



* Inclusive of jiggging 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	$\pm 25\text{ppm}^*$, $\pm 50\text{ppm}$, $\pm 100\text{ppm}$	2.5V $\pm 5\%$	3.5mA	12ns	12ns	45/55%	CFPS-67
32.0 to 50.0MHz			4.5mA				CFPS-67I
1.8 to <32.0MHz		2.8V $\pm 5\%$	4.0mA				CFPS-68
32.0 to 50.0MHz			5.0mA				CFPS-68I
1.8 to <32.0MHz		3.3V $\pm 5\%$	4.5mA				CFPS-69
32.0 to 50.0MHz			6.0mA				CFPS-69I

Ordering Example

Frequency _____ 24.0MHz CFPS-69 | C

Model No. _____

Operating Temperature Code: I = -40 to 85°C ; not applicable for -10 to 70°C _____

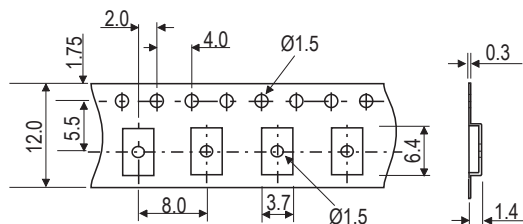
Frequency Stability: A = $\pm 25\text{ppm}$, B = $\pm 50\text{ppm}$, C = $\pm 100\text{ppm}$ _____

*Note - Code IA, $\pm 25\text{ppm}$ 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)

