

CFPS-61 SMD CLOCK OSCILLATORS

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Description

- 2.5V surface mount oscillator in a ceramic package, with a hermetically sealed metal lid and LVDS outputs

Package Outline

- 7 x 5mm

Frequency Range

- 75 to 270MHz

Output Compatibility & Load

- LVDS
- Differential Output Voltage (VOD) 0.33V typ
- Offset Voltage (VOS) 1.25V typ
- Output Load 100Ω

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-61)
- 40 to 85°C (CFPS-61I)

Storage Temperature Range

- 55 to 125°C

Tri-state Operation

- Logic '1' to pad 1 (>70% Vs) enables oscillator outputs
- Logic '0' to pad 1 (<30% Vs) disables oscillator outputs and the oscillator outputs go to the high impedance state
- No connection to pad 1 enables oscillator outputs

Standby Current

- 30µA max

Start-Up Time

- 10ms max

Phase Jitter (12kHz to 20MHz)

- 1ps rms max

Environmental

- Drop: natural drop, 3 times, from 30cm onto a hard wooden plate
- Vibration: 10 to 55Hz (amplitude 1.52mm), 20G, X, Y and Z (2 hours each, total 6 hours)

Marking Includes

- Model Number + Frequency

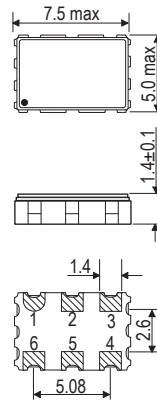
Packaging

- Bulk or Tape and Reel
- Tape & Reel in accordance with EIA-481-D

Minimum Order Information Required

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

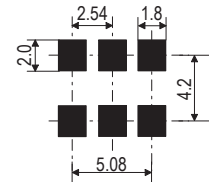
Outline (mm)



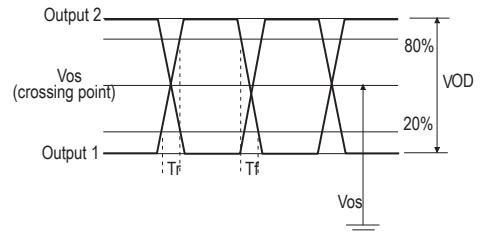
Pad Connections

- Enable/Disable
- N/C
- GND
- Output 1
- Output 2
- +Vs

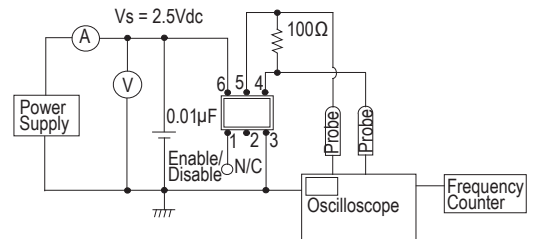
Solder pad layout



Output Waveform



Test Circuit



Electrical Specifications - maximum limiting values

| Frequency Range | Frequency Stability | Supply Voltage | Supply Current | Rise Time (tr) (20% to 80% Vp-p) | Fall Time (tf) (80% to 20% Vp-p) | Duty Cycle (crossing point 0V) | Model Number |
|------------------|-----------------------------|----------------|----------------|--|--|--------------------------------------|---------------------|
| 75.0 to 270.0MHz | ±25ppm*, ±50ppm, ±100ppm | 2.5V±5% | 63mA | 0.7ns | 0.7ns | 45/55% | CFPS-61 CFPS-61I |

Ordering Example 100.0MHz CFPS-61 | C

Frequency _____

Model No. _____

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

Frequency Stability _____

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

CLOCK
OSCILLATORS