

CFPS-60 SMD CLOCK OSCILLATORS

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Description

- Low jitter 3.3V 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 170MHz

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-60)
- 40 to 85°C (CFPS-60I)

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; when the oscillator outputs go to the high impedance state
- No connection to pad 1 enables oscillator outputs

Standby current

- 30μA max

Phase Jitter

- 1ps rms 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 in X, Y & Z axes, total 12 hrs)

Marking Includes

- Model Number + Frequency

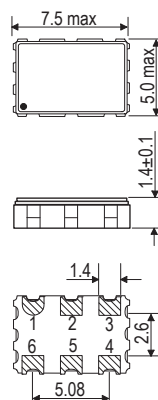
Packaging

- Bulk or Tape and Reel

Minimum Order Information Required

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

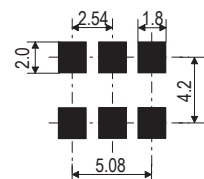
Outline (mm)



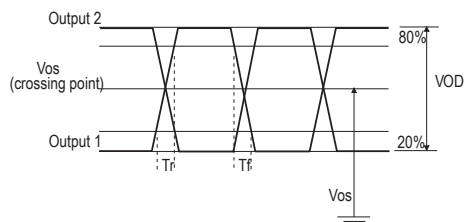
Pad Connections

1. Enable/Disable
2. N/C
3. GND
4. Output 1
5. Output 2
6. +Vs

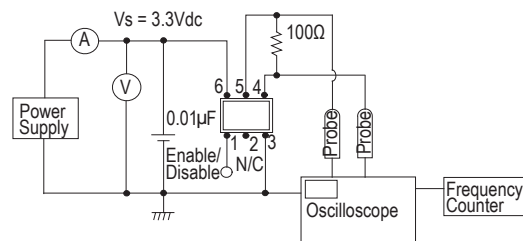
Solder pad layout



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)	Model Number
75.0 to 170.0MHz	$\pm 25\text{ppm}^*$, $\pm 50\text{ppm}$, $\pm 100\text{ppm}$	3.3V $\pm 5\%$	66mA	0.7ns	0.7ns	45/55%	CFPS-60 CFPS-60I

Ordering Example

Frequency

Model No.

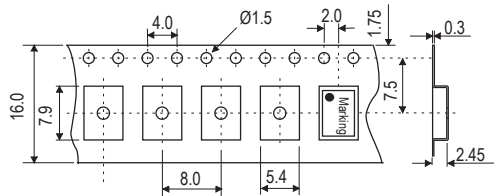
Operating Temperature Code: I = -40 to 85°C; not applicable for -10 to 70°C

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

100.0MHz CFPS-60 C

Tape (mm)



Reel (mm)

