

# CFPS-63 SMD CLOCK OSCILLATORS

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## Description

- High frequency 3.3V surface mount oscillator in a ceramic package, with a hermetically sealed metal lid and LVDS outputs

## Package Outline

- 7.5 x 5mm

## Frequency Range

- 12MHz to 700MHz

## 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-63)
- 40 to 85°C (CFPS-63I)

## Storage Temperature Range

- 40 to 85°C

## Tri-state Operation

- Logic '0' to pad 2 (< 1.7V) enables oscillator outputs.
- Logic '1' to pad 2 (>2.2V) disables oscillator outputs; oscillator outputs go to the high impedance state.
- No connection to pad 2 enables oscillator outputs

## Phase Jitter (12kHz to 20MHz)

- 5ps rms max

## Phase Noise (max)

- 110dBc/Hz at 10kHz

## 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

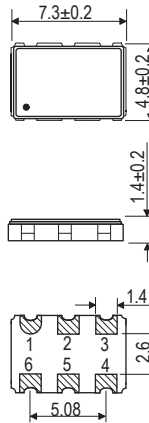
## Packaging

- Bulk or Tape and Reel

## Minimum Order Information Required

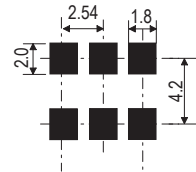
- Frequency + Model Number + Operating Temperature Code (if applicable) + Frequency Stability

## Outline (mm)

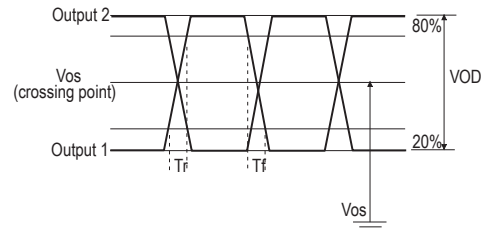


- Pad Connections
- N/C
  - Enable / Disable
  - GND
  - Output 1
  - Output 2
  - +Vs

## Solder pad layout



## Output Waveform



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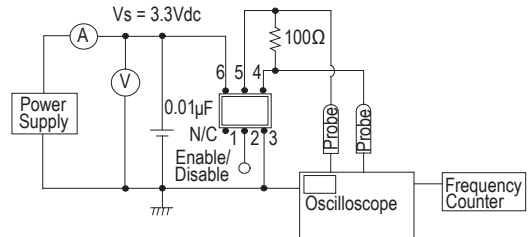
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## Minimum Order Information Required

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

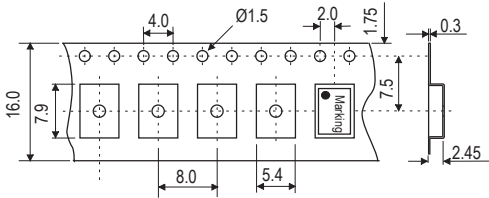
## Test Circuit



**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
12.0 to 700.0MHz	±25ppm*, ±50ppm, ±100ppm	3.3V±5%	80mA	1.0ns	1.0ns	45/55%	CFPS-63 CFPS-63I
Ordering Example							100.0MHz CFPS-63   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							

**Tape (mm)**



**Reel (mm)**

