

# CFPS-34 SMD CLOCK OSCILLATORS

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## Description

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

## Package Outline

- 7 x 5mm

## Frequency Range

- 75 to 170MHz

## Output Compatibility & Load

- LVPECL
- Output Load 50Ω terminated to +1.3V

## 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-34)
- 40 to 85°C (CFPS-34I)

## 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; the oscillator output goes to the high impedance state
- No connection to pad 1 enables oscillator output

## Output Voltage

- '0' Level VoL +1.7V max
- '1' Level VoH +2.2V min

## Phase Jitter

- 1ps rms max (12kHz - 20MHz)

## Environmental

- Shock: MIL-STD-202F, Method 213B (1000G, 0.5ms)
- Vibration: MIL-STD-202F, Method 204D, Test Condition D 20G Frequency range 10-2000Hz, 4 hrs for X, Y & Z (total 12hrs)

## Marking Includes

- Model Number + Frequency

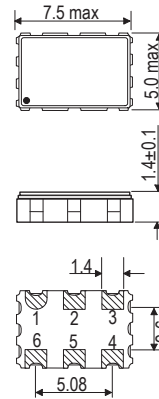
## Packaging

- Bulk or Tape and Reel

## Minimum Order Information Required

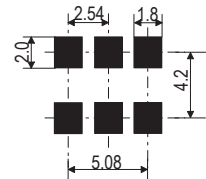
- Frequency + Model Number + Operating Temperature Code (if applicable) + Frequency Stability

## Outline (mm)

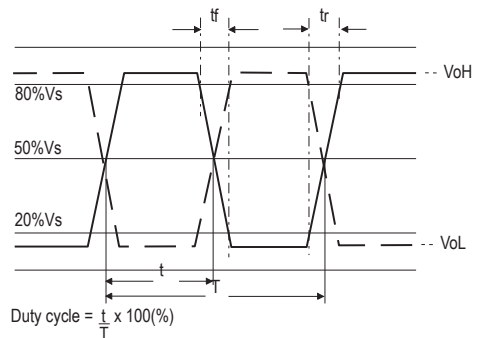


- Pad Connections
1. Enable/Disable
  2. N/C
  3. GND
  4. Output 1
  5. Output 2
  6. +Vs

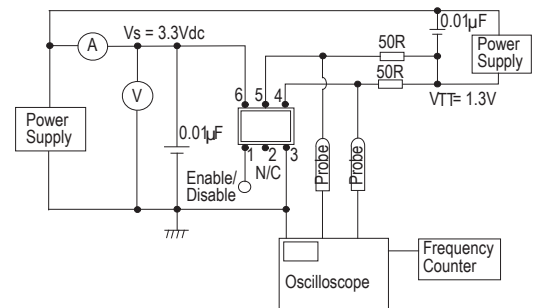
## Solder pad layout



## Output Waveform



## Test Circuit

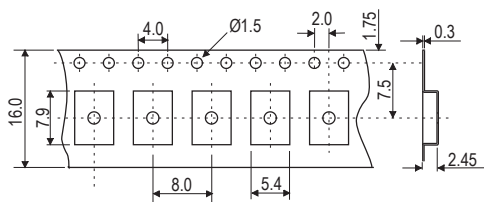


## Electrical Specifications - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr) (20-80%)	Fall Time (tf) (80-20%)	Duty Cycle	Model Number
75.0 to 170.0MHz	$\pm 25\text{ppm}^*$ , $\pm 50\text{ppm}$ , $\pm 100\text{ppm}$	3.3V $\pm 5\%$	60mA	1ns	1ns	40/60%	CFPS-34 CFPS-34I

Ordering Example  
 Frequency 100.0MHz  
 Model No. CFPS-34  
 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

### Tape (mm)



### Reel (mm)

