

CFPS-59 SMD CLOCK OSCILLATORS

ISSUE 4; 24 JULY 2009 - RoHS 2002/95/EC

Description

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

Package Outline

- 7 x 5mm

Frequency Range

- 40 to 270MHz

Output Compatibility & Load

- LVPECL
- Output Load 50Ω terminated to $V_s - 2.0V$

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-59)
- 40 to 85°C (CFPS-59I)

Storage Temperature Range

- 55 to 125°C

Tri-state Operation

- Logic '1' (>70% V_s) to pad 1 enables oscillator output
- Logic '0' (<30% V_s) to pad 1 disables oscillator output; the oscillator output goes to the high impedance state
- No connection to pad 1 enables oscillator output

Stand-by Current

- 30µA max

Start-Up Time

- 10ms max

Output Voltage

- "0" Level (VoL), +1.195V max
- "1" Level (VoH), +1.415V min

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

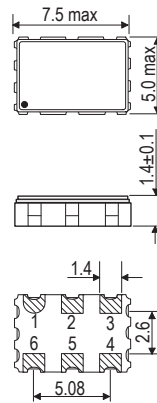
Packaging

- 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

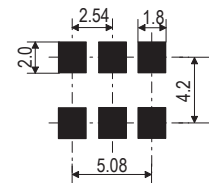
Outline (mm)



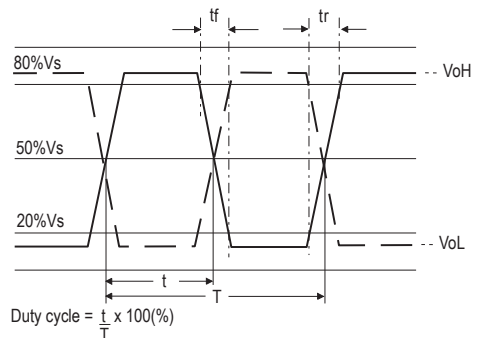
Pad Connections

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

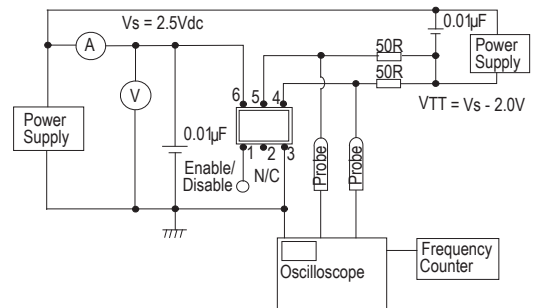
Solder pad layout



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
40.0 to 170.0MHz	±25ppm*, ±50ppm, ±100ppm	2.5V±5%	60mA	0.7ns	0.7ns	45/55%	CFPS-59
>170.0 to 270.0MHz			88mA				CFPS-59I

Ordering Example _____ 100.0MHz CFPS-59 | 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

CLOCK
OSCILLATORS