



CFPS-59

ISSUE 2; 6 AUG 2008



Delivery Options

- Please contact our sales office for current leadtimes

Description

- The CFPS-59 is a high frequency, surface mount oscillator with complementary LVPECL outputs

Output Compatibility

- 2.5V LVPECL
- Output Load 50Ω terminated to Vs-2.0V

Output Voltage

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

Package Outline

- 7.5 x 5.0mm SMD

Frequency Range

- 75.0 to 170.0MHz

Frequency Stabilities

- ±25ppm, ±50ppm, ±100ppm (inclusive of supply voltage & 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% 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
- Stand-by current 30µA max

Phase Jitter (12kHz to 20MHz)

- 1ps RMS max

Environmental

- Drop: natural drop, 3 times, from 75cm onto a hard wooden plate (30mm thick)
- Vibration: MIL-STD-202F, Method 204D, Test Condition D 20G, freq range 10-2000Hz, 4 hrs in X, Y & Z axes (total 12 hrs)

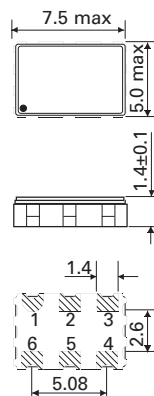
Marking

- Model Number
- Frequency

Minimum Order Information Required

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

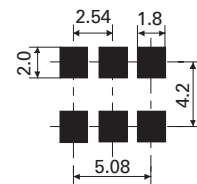
Outline in mm



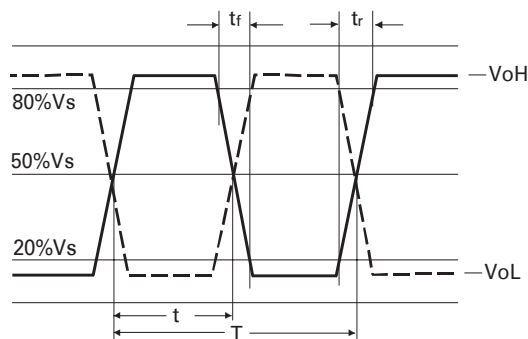
Pad Connections

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

Solder pad layout



Output Waveform



$$\text{Duty cycle} = \frac{t}{T} \times 100(\%)$$

SURFACE MOUNT
SPX08



Electrical Specification - maximum limiting values when measured in LVPECL test circuit

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr) (20% to 80%)	Fall Time (tf) (80% to 20%)	Duty Cycle	Model Number
75.0 to 170.0MHz	$\pm 25\text{ppm}^*$, $\pm 50\text{ppm}$, $\pm 100\text{ppm}$	2.5V $\pm 5\%$	50mA	0.7ns	0.7ns	45/55%	CFPS-59 CFPS-59I

Ordering Example

100.0MHz CFPS-59 I C

Frequency _____

Model No _____

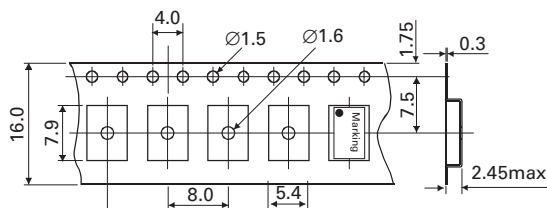
Operating Temperature Code: I = -40 to 85°C: Not applicable for -10 to 70°C _____

Frequency Stability: A = $\pm 25\text{ppm}$, B = $\pm 50\text{ppm}$, C = $\pm 100\text{ppm}$ _____

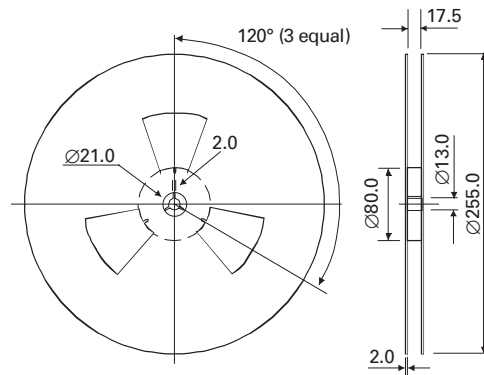
*Note - Code IA, $\pm 25\text{ppm}$ over -40 to 85°C is not available

SURFACE MOUNT
SPXOs

Outline in mm - Tape



Outline in mm - Reel



Test Circuit - LVPECL

