CFPP-53, -54, -56 PROGRAMMABLE OSCILLATORS

ISSUE 5; 11 AUGUST 2009 - RoHS 2002/95/EC

Description

- One time factory programmable PLL crystal oscillator in a hermetically sealed surface mount ceramic package

Package Outline

- 2.5 x 2mm

Frequency Range

- 1.0 to 133MHz CFPP-53
- 1.0 to 166MHz CFPP-54
- 1.0 to 200MHz CFPP-56

Output Compatibility & Load

- Tri-state CMOS
- Drive Capability 15pF max

Frequency Stabilities

- ±20ppm, ±25ppm, ±50ppm, ±100ppm (inclusive of tolerance, supply voltage & output load variations over the operating temperature range)

Operating Temperature Ranges

- –20 to 70°C CFPP-53, 54, 56
- –40 to 85°C CFPP-53I, 54I, 56I

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

Supply Voltage

- 1.8V CFPP-53
- 2.5V CFPP-54
- 3.3V CFPP-56

Standby current

- 15µA max

Period Jitter

- 200ps max

Start Up Time

- 2ms max

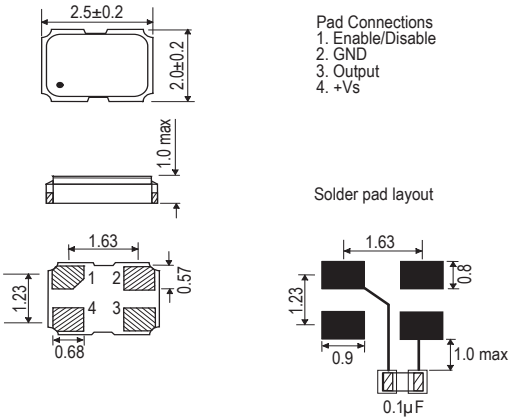
Packaging

- Bulk or Tape & Reel
- Tape and Reel in accordance with EIA-481-D

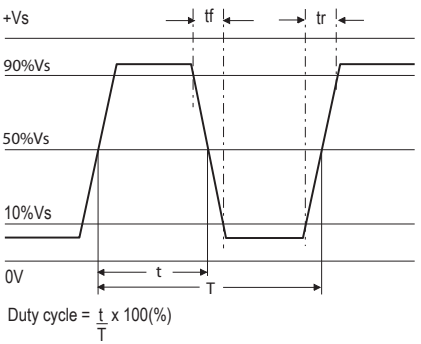
Minimum Order Information Required

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

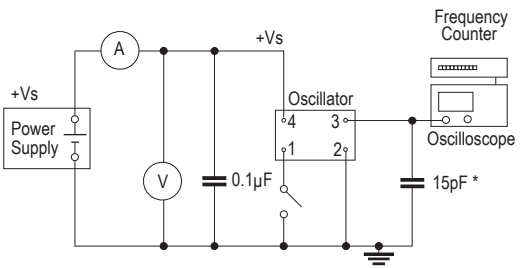
Outline (mm)



Output Waveform



Test Circuit



* Inclusive of jigging and equipment capacitance

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Electrical Specifications - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr) (10-90%)	Fall Time (tf) (90-10%)	Duty Cycle	Model Number
1.0 to <10MHz	±20ppm* ±25ppm* ±50ppm ±100ppm	1.8V ±10%	6mA	5ns	5ns	45/55%	CFPP-53, CFPP-53I
		2.5V ±10%	8mA	4ns	4ns		CFPP-54, CFPP-54I
		3.3V ±10%	10mA	3ns	3ns		CFPP-56, CFPP-56I
10.0 to <30.0MHz		1.8V ±10%	6mA	4ns	4ns		CFPP-53, CFPP-53I
		2.5V ±10%	8mA	3ns	3ns		CFPP-54, CFPP-54I
		3.3V ±10%	10mA	2ns	2ns		CFPP-56, CFPP-56I
30.0 to <75.0MHz		1.8V ±10%	8mA	4ns	4ns		CFPP-53, CFPP-53I
		2.5V ±10%	10mA	3ns	3ns		CFPP-54, CFPP-54I
		3.3V ±10%	15mA	2ns	2ns		CFPP-56, CFPP-56I
75.0 to <133.0MHz		1.8V ±10%	12mA	4ns	4ns		CFPP-53, CFPP-53I
		2.5V ±10%	15mA	3ns	3ns		CFPP-54, CFPP-54I
		3.3V ±10%	20mA	2ns	2ns		CFPP-56, CFPP-56I
133.0 to <166.0MHz		2.5V ±10%	15mA	3ns	3ns		CFPP-54, CFPP-54I
		3.3V ±10%	22mA	2ns	2ns		CFPP-56, CFPP-56I
166.0 to 200.0MHz			25mA				

Ordering Example: 20.0MHz CFPP-56 I C

- Frequency
- Model No.
- Operating Temperature Code: I = –40 to 85°C, Not applicable for –20 to 70°C
- Frequency Stability: G = ±20ppm, A = ±25ppm, B = ±50ppm, C = ±100ppm

*Note: ±20ppm & ±25ppm over -40 to 85°C (codes IG & IA) & ±20ppm over –20 to 70°C (code G) are not available

Please note that the rise and fall times listed are the maximum values we specify to cover various frequency breaks. In practice the actual values are generally lower depending upon the spot frequency chosen. For typical values please contact our sales office.

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