IQXO-730, -731, 753, -757 SMD CLOCK OSCILLATORS

ISSUE 1; 24 MARCH 2010 - RoHS 2002/95/EC

Description

- 3.3V or 5.0V surface mount oscillators in a 'J' lead plastic package, designed to withstand solder refow profiles up to 250°C. These parts are offered as an alternative to products which withstand solder reflow profiles up to 230°C (see table below)

Model Equivalence Table vs Solder Reflow Temperature

250°C	230°C	Supply Voltage	Function
IQXO-730	CFPS-130	3.3V	Non tristate
IQXO-731	CFPS-131	3.3V	Tristate
IQXO-753	IQXO-53	5.0V	Non tristate
IQXO-757	IQXO-57	5.0V	Tristate

Package Outline

- 14 x 9mm

Frequency Range

- 1 to 70MHz

Output Compatibility & Load

- HCMOS
- Drive Capability 15pF max
- Tri-state (IQXO-731, -757)
- Non tri-state (IQXO-730, -753)

Standard Frequency Stabilities

- ±50ppm, ±100ppm (inclusive of supply voltage variations over the operating temperature range)

Operating Temperature Ranges

- 0 to 70°C (IQXO-730, -731, -753, -757)
- –40 to 85°C (IQXO-730I, 731I, -753I, -757I)

Storage Temperature Range

- –50 to 125°C

Tri-state Operation

- Logic '1' to pad 1 enables oscillator output,
- Logic '0' 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
- When oscillator is enabled, maximum transition time = 100ns

Marking Includes

- Model Number + Frequency + Date Code

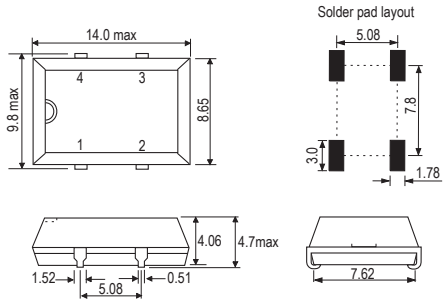
Packaging

- Loose in bulk pack or tape and reel
- Tape & Reel in accordance with EIA-481-D

Minimum Order Information Required

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

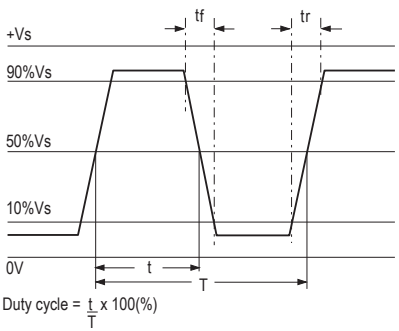
Outline (mm)



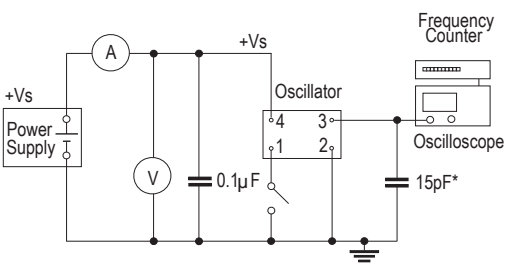
Pin Connections
1. N/C or Enable/Disable
2. GND
3. Output
4. +Vs

Note: Pin 1 = No connection on non tri-state models

Output Waveform



Test Circuit



Inclusive of jigging and equipment capacitance

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Electrical Specification - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr)	Fall Time (tf)	Duty Cycle	Model Number
1.0 to 27.0MHz	±50ppm, ±100ppm	3.3V ±0.3V	10mA	5ns	5ns	40/60%	IQXO-730, -730I, -731, -731I
>27.0 to 50.0MHz			18mA				
>50.0 to 70.0MHz			30mA				
1.0 to 40.0MHz	±50ppm, ±100ppm	5.0V ±0.5V	20mA	5ns	5ns	40/60%	IQXO-753, -753I, -757, -757I
>40.0 to 50.0MHz			30mA				
>50.0 to 70.0MHz			45mA				

Ordering Example 10.0MHz IQXO-757 I C

Frequency

Model No: 731, 757 = Tri-state; 730; 753 = Non Tri-state

Operating Temperature Code: I = -40 to 85°C; Not applicable for 0 to 70°C

Frequency Stability: B = ±50ppm; C = ±100ppm

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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