

IQXO-62, -63 SMD CLOCK OSCILLATORS

ISSUE 6; 1 NOVEMBER 2008 - RoHS 2002/95/EC

Description

- Surface mount oscillators in a ceramic package with a hermetically sealed metal lid available in two voltages

Package Outline

- 6 x 3.5mm

Frequency Range

- 1.8 to 50MHz

Output Compatibility & Load

- Tri-state HCMOS (5.0V) (IQXO-62) 50pF/10TTL max
- Tri-state HCMOS (3.3V) (IQXO-63) 15pF max

Frequency Stabilities

- ±50ppm, ±100ppm (inclusive of supply voltage and output load)

Operating Temperature Range

- 10 to 70°C (IQXO-62, 63)
- 40 to 85°C (IQXO-62L, -63L)

Storage Temperature Range

- 40 to 85°C

Tri-state Operation

- Logic '1' (IQXO-62 2.2V min, IQXO-63 70%Vs min) to pad 1 enables oscillator output
- Logic '0' (IQXO-62 0.8V max, IQXO-63 30%Vs max) 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

Standby Current

- 10mA max (Logic '0' to pad 1)

Environmental

- Shock: MIL-STD-202F, Method 213B (1000G, 0.5ms, 1/2 sine)
- Vibration: MIL-STD-202F, Method 204D, Test condition D 20G Frequency range 10-2000Hz, 4 hrs in X, Y & Z axes (total 12 hrs)

Marking Includes

- Model Number + Frequency

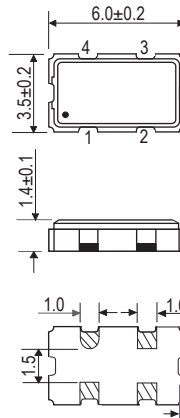
Packaging

- Bulk or Tape and Reel

Minimum Order Information Required

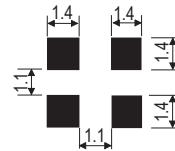
- Frequency + Model Number + Frequency Stability

Outline (mm)

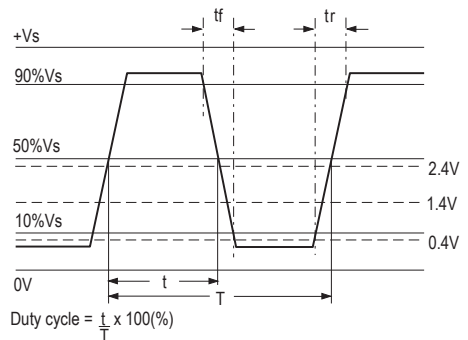


- Pad Connections
1. Enable/Disable
 2. GND
 3. Output
 4. +Vs

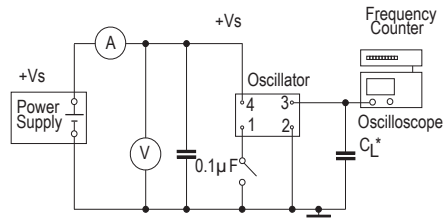
Solder pad layout



Output Waveform



Test Circuit



* Inclusive of jigging and equipment capacitance

Note: $C_L = 50\text{pF}$ for model IQXO-62 and 15pF for model IQXO-63

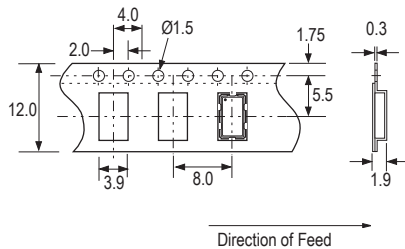
Electrical Specifications - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr)	Fall Time (tf)	Duty Cycle	Model Number
1.8 to 32.0MHz	±50ppm*, ±100ppm	3.3V ±0.3V	15mA	7ns	7ns	40/60%	IQXO-63, 63I
		5.0V ±0.5V	27mA				IQXO-62, 62I
> 32.0 to 50.0MHz		3.3V ±0.3V	20mA				IQXO-63, 63I
		5.0V ±0.5V	45mA				IQXO-62, 62I

Ordering Example 24.0MHz IQXO-62 I C
 Frequency _____
 Model No. _____
 Operating Temperature Code: I = -40 to 85°C; Not applicable for -10 to 70°C _____
 Frequency Stability: B = ±50ppm; C = ±100ppm _____
 *Note - Code IB, ±50ppm over -40 to 85°C is 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.
 Note. Other frequency/specification combinations may be available so please contact our sales office.

Tape (mm)



Reel (mm)

