

# IQXO-62, -63

ISSUE 2; 19 OCTOBER 1999

## Delivery Options

- Please contact our sales office for current leadtimes

## Output Compatibility

- Tri-state HCMOS/TTL (5.0V) (IQXO- 62)
- Tri-state HCMOS (3.3V) (IQXO- 63)

## Package Outline

- SMD (surface mount device) ceramic package with high drive capability

## Standard Frequencies

- 1.84320MHz, 2.0MHz, 3.68640MHz, 4.0MHz, 5.0MHz, 8.0MHz, 10.0MHz, 12.0MHz, 14.318180MHz, 16.0MHz, 20.0MHz, 24.0MHz, 25.0MHz, 29.49120MHz, 30.0MHz, 32.0MHz, 33.86880MHz, 36.8640MHz, 40.0MHz, 44.23680MHz, 48.0MHz, 50.0MHz

## Standard Frequency Stabilities

- $\pm 50\text{ppm}$ ,  $\pm 100\text{ppm}$  (inclusive of supply voltage & output load variations over the operating temperature range)

## Operating Temperature Range

- $-10$  to  $70^{\circ}\text{C}$

## Storage Temperature Range

- $-30$  to  $85^{\circ}\text{C}$

## Tri-state Operation

- Logic '1' to pad 1 enables oscillator output, 2.2V min
- Logic '0' to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state, 0.8V max
- No connection to pad 1 enables oscillator output

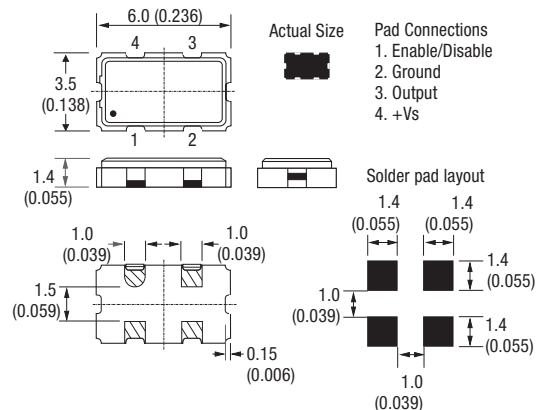
## Marking

- Model number
- Frequency Stability Code
- Frequency

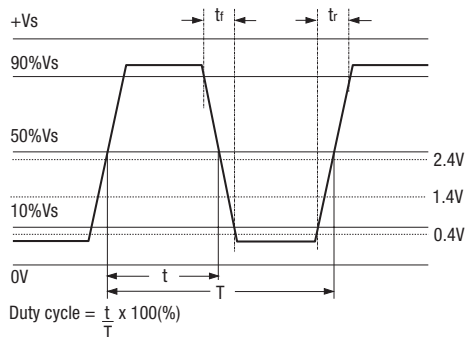
## Minimum Order Information Required

- Frequency + Model Number + Frequency Stability

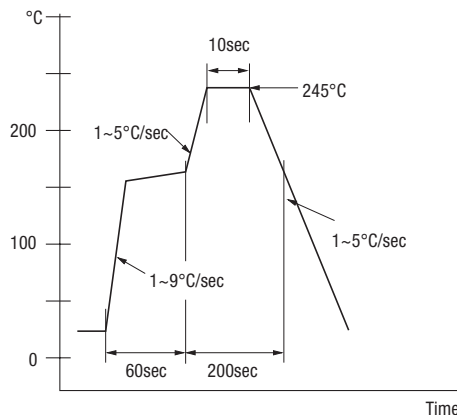
## Outline in mm (inches) - (scale 3:1)



## Output Waveform - HCMOS/TTL



## Typical Solder Condition - Infrared Reflow



# **Electrical Specification - maximum limiting values when measured in HCMOS test circuit**

| Frequency Range   | Frequency Stability                         | Supply Voltage         | Supply Current | Rise Time ( $t_r$ ) | Fall Time ( $t_f$ ) | Duty Cycle | Model Number |
|-------------------|---------------------------------------------|------------------------|----------------|---------------------|---------------------|------------|--------------|
| 1.80 to 25.0MHz   | $\pm 50\text{ppm}$ ,<br>$\pm 100\text{ppm}$ | 3.3V $\pm 0.3\text{V}$ | 15mA           | 6ns                 | 6ns                 | 40/60%     | IQXO-63      |
|                   |                                             | 5.0V $\pm 0.5\text{V}$ | 27mA           | 5ns                 | 5ns                 |            | IQXO-62      |
| > 25.0 to 50.0MHz | $\pm 50\text{ppm}$ ,<br>$\pm 100\text{ppm}$ | 3.3V $\pm 0.3\text{V}$ | 15mA           | 6ns                 | 6ns                 | 40/60%     | IQXO-63      |
|                   |                                             | 5.0V $\pm 0.5\text{V}$ | 40mA           | 5ns                 | 5ns                 |            | IQXO-62      |

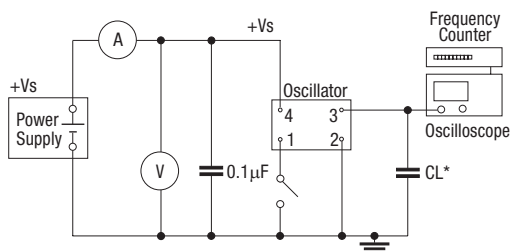
**Ordering Example**

Frequency 24.0MHz    IQXO-62    B

Model No

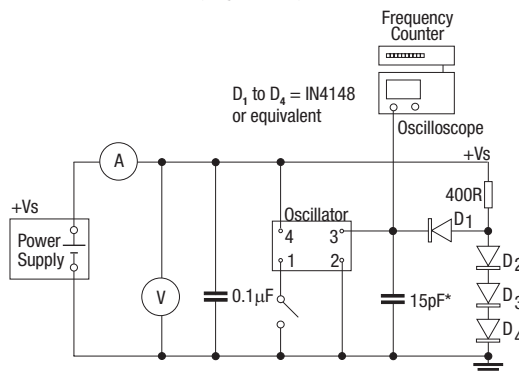
Frequency Stability: B =  $\pm 50\text{ppm}$ ; C =  $\pm 100\text{ppm}$

## **Test Circuit - HCMOS**



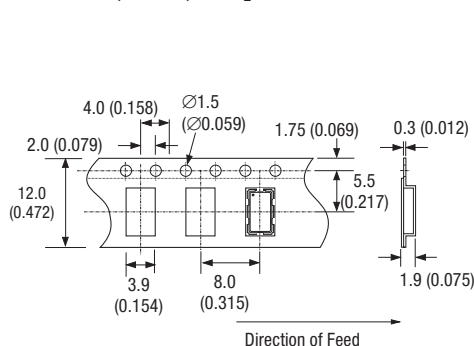
\* Inclusive of jigging & equipment capacitance  
Note: CL = 50pF for model IQXO-62 and 15pF for model IQXO-63

## **Test Circuit - TTL (IQXO-62)**



\*Inclusive of jigging & equipment capacitance

## **Outline in mm (inches) - Tape**



## **Outline in mm (inches) - Reel (scale 1:8)**

