

ISSUE 1; November 2015

### Description

- Surface mount oscillator in a ceramic package, with a hermetically sealed metal lid. Suitable for Industrial applications qualified to AEC-Q200.



### Frequency Parameters

- Frequency: 4.0MHz to 110.0MHz
- Frequency Stability:  $\pm 50.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing:  $\pm 5\text{ppm}$  max per year

### Electrical Parameters

- Supply Voltage:  $5.0\text{V} \pm 10\%$

### Operating Temperature Ranges

- 0 to  $70^\circ\text{C}$
- 40 to  $85^\circ\text{C}$

### Output Details

- Output Compatibility: HCMOS
- Drive Capability: 15pF

### Output Control

- Tri-State Operation:  
Logic '1' ( $>90\%V_s$ ) to pad 1 enables oscillator output.  
Logic '0' ( $<10\%V_s$ ) 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.

### Environmental Parameters

- Storage Temperature Range:  $-45$  to  $130^\circ\text{C}$
- Qualified to AEC-Q200

### Ordering Information

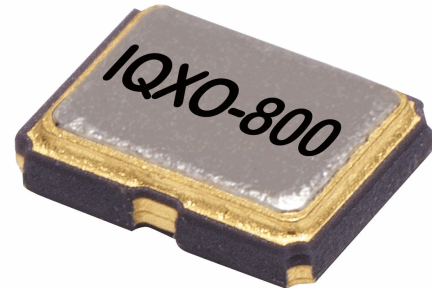
- Frequency\*
- Model\*
- Output Compatibility
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Supply Voltage  
(\*minimum required)
- Example  
10.0MHz IQXO-800  
HCMOS  $\pm 100\text{ppm}$  -40 to  $85^\circ\text{C}$  5.0V

### Compliance

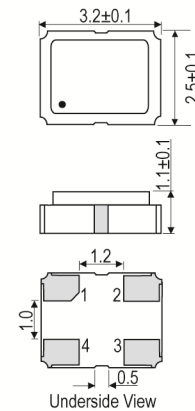
- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

### Packaging Details

- Pack Style: Reel: Tape & reel in accordance with EIA-481-D  
Pack Size: 3,000
- Pack Style: Bulk: Loose in bulk pack  
Pack Size: 100

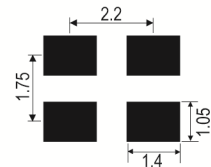


### Outline (mm)

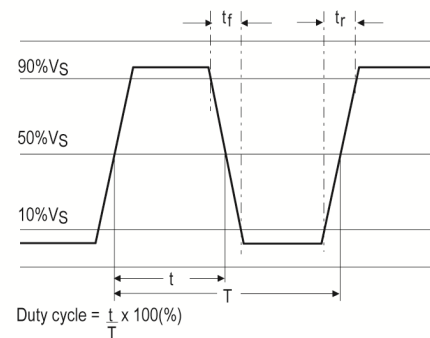


- Pad Connections
- Tri-State Operation
  - GND
  - Output
  - +Vs

### Solder Pad Layout



### Wave Form



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Electrical Specification - maximum limiting values 5.0V  $\pm$ 10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
4.0MHz	9.999999MHz	0 to 70	$\pm$ 50.0	10	10	40/60
		-40 to 85	$\pm$ 50.0	10	10	40/60
10.0MHz	19.999999MHz	0 to 70	$\pm$ 50.0	15	10	40/60
		-40 to 85	$\pm$ 50.0	15	10	40/60
20.0MHz	29.999999MHz	0 to 70	$\pm$ 50.0	25	10	40/60
		-40 to 85	$\pm$ 50.0	25	10	40/60
30.0MHz	49.999999MHz	0 to 70	$\pm$ 50.0	35	6	40/60
		-40 to 85	$\pm$ 50.0	35	6	40/60
50.0MHz	79.999999MHz	0 to 70	$\pm$ 50.0	45	5	40/60
		-40 to 85	$\pm$ 50.0	45	5	40/60
80.0MHz	99.999999MHz	0 to 70	$\pm$ 50.0	50	4.5	40/60
		-40 to 85	$\pm$ 50.0	50	4.5	40/60
100.0MHz	110.0MHz	0 to 70	$\pm$ 50.0	55	3.5	40/60
		-40 to 85	$\pm$ 50.0	55	3.5	40/60

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