

ISSUE 3; June 2017

### Description

- 5.0 x 3.2mm surface mount voltage controlled crystal oscillators (VCXOs) in a hermetically sealed ceramic package

### Frequency Parameters

- Frequency: 2.0MHz to 52.0MHz
- Frequency Stability:  $\pm 25.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Modulation Bandwidth:  $>20\text{kHz}$
- Linearity  $\leq \pm 10\%$  Positive

### Electrical Parameters

- Supply Voltage: 3.3V  $\pm 5\%$

### Frequency Adjustment

- Pulling:  $\pm 100\text{ppm}$  min
- Control Voltage: 1.65V  $\pm 1.5\text{V}$
- Input Impedance: 100k $\Omega$  typ

### Operating Temperature Ranges

- 10 to 70°C

### Output Details

- Output Compatibility: HCMOS
- Drive Capability: 15pF Max
- Logic '1' ( $>70\%V_s$ ) to pad 6 enables oscillator output
- Logic '0' ( $<30\%V_s$ ) to pad 6 disables oscillator output; when disabled the oscillator output goes into high impedance state
- No connection to pad 6 enables oscillator output

### Noise Parameters

- Phase Noise (max):
  - 65dBc/Hz @ 10Hz
  - 98dBc/Hz @ 100Hz
  - 125dBc/Hz @ 1kHz
  - 135dBc/Hz @ 10kHz
  - 145dBc/Hz @ 100kHz

### Environmental Parameters

- Storage Temperature Range: -40 to 85°C

### Ordering Information

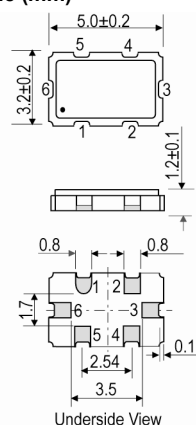
- Frequency\*
- Model\*
- Output
- Frequency Stability (over operating temperature range)\*
- Operating Temperature
- Supply Voltage
- Pullability
- Example
- 3.0MHz CFPV-59
- HCMOS  $\pm 100\text{ppm}$  -10 to 70C 3.3V  $\pm 100\text{ppm}$  min

### Compliance

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

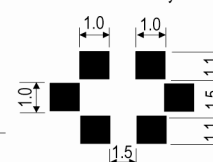


### Outline (mm)



- Pad Connections
- Voltage Control
  - GND
  - GND or N/C
  - Output
  - +Vs
  - Enable/Disable

### Solder Pad Layout



### Sales Office Contact Details:

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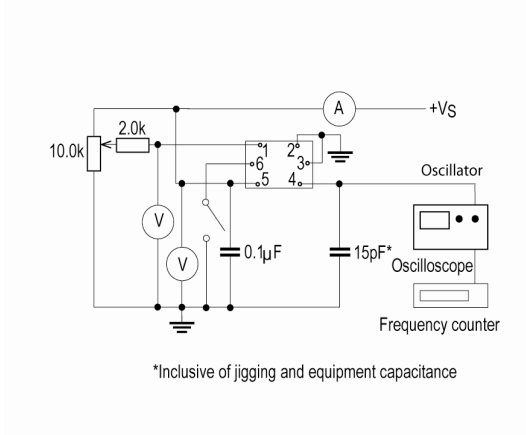
Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

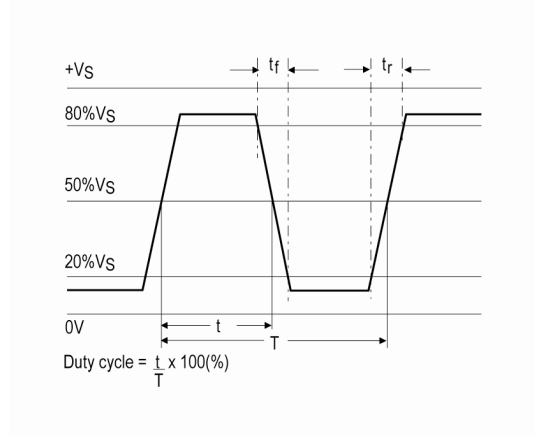
**Packaging Details**

- Pack Style: Reel      Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000
- Pack Style: Bulk      Loose in bulk pack  
Pack Size: 100
- Pack Style: Cutt      In tape cut from a reel  
Pack Size: 100

**Test Circuit**



**Wave Form**



**Electrical Specification - maximum limiting values 3.3V ±5%**

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
2.0MHz	30.0MHz	-10 to 70	±25.0	15	5	40/60%
30.000001MHz	52.0MHz	-10 to 70	±25.0	25	5	40/60%

*This document was correct at the time of printing; please contact your local sales office for the latest version.*  
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