

ISSUE 3; March 2016

**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  $\pm 10\%$  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 Impedence: 100k $\Omega$  typ

**Operating Temperature Ranges**

- 10 to 70°C

**Output Details**

- Output Compatability: 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**

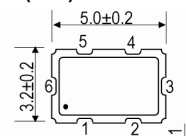
- Frequency\*  
Model\*  
Output  
Frequency Stability (over operating temperature range)\*  
Operating Temperature  
Supply Voltage  
Pullability
- Example  
3.0MHz CFPV-59  
HCMOS  $\pm 100\text{ppm}$  -10 to 70C 3.3V  $\pm 100\text{ppm}$  min

**Compliance**

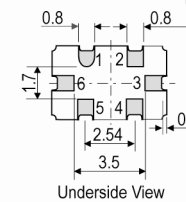
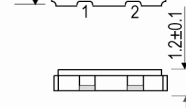
- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



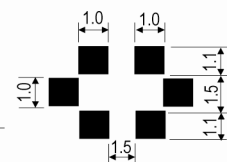
**Outline (mm)**



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



**Solder Pad Layout**



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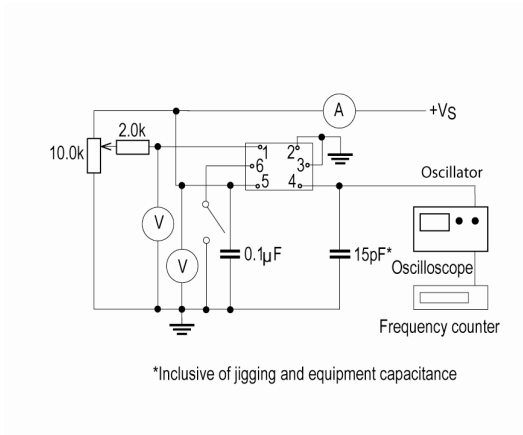
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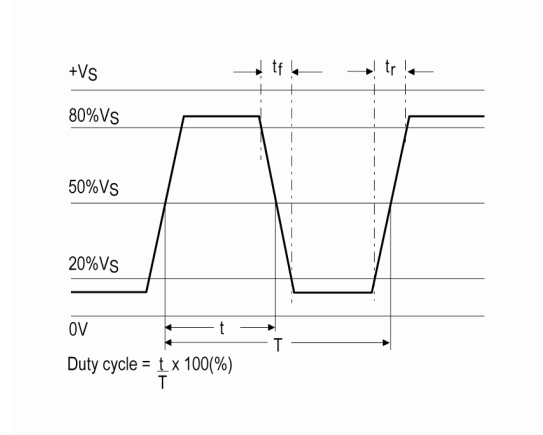
**Packaging Details**

- 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: 1

**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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