



ISSUE 5; February 2012 - RoHS 2011/65/EU



Description

- Low supply current crystal oscillators
- Ceramic package with a seam sealed metal lid, hermetically sealed
- Please see our CFPS-9 package for standard 5 x 3.2 oscillators

Frequency Range

- Frequency 1.8 to 50.0MHz

Supply Voltage

- Voltage 3.3V $\pm 5\%$

Ageing

- Ageing $\pm 3\text{ppm}$ max per year

Output Compatibility & Load

- Output Compatibility CMOS
- Drive Capability 15pF max

Frequency Stabilities

- Frequency Stability $\pm 25\text{ppm}$, $\pm 50\text{ppm}$, $\pm 100\text{ppm}$

Operating Temperature Ranges

- 40 to 85°C
- 10 to 70°C

Electrical Parameters

- Standby Current: 1 μ A max

Output Control

- Standby Operation:
Logic '1' (>70% VS) to pad 1 enables oscillator output
Logic '0' (<30% VS) to pad 1 disables oscillator output; when the oscillator output goes to the high impedance state
No connection to pad 1 enables oscillator output

Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: MIL-STD-202F, Method 213B: 1000G, 0.5ms, 1/2 sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20G (10Hz-2000Hz), 4hrs in 3 mutually perpendicular planes (total 12hrs)

Ordering Information (*minimum required)

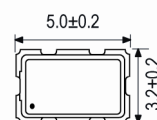
- Frequency*
- Model*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage
- (*minimum required)
- Example
- 20.0MHz CFPS-69
- CMOS $\pm 50\text{ppm}$ -10 to 70C 3.3V

Packing Details

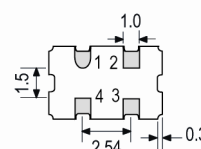
- Pack Style: **Bulk** Loose in bulk pack
- Pack Size 100
- Pack Style: **Reel** Tape and reel in accordance with EIA-481-D
- Pack Size 1,000



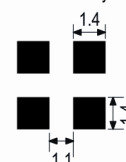
Outline (mm)



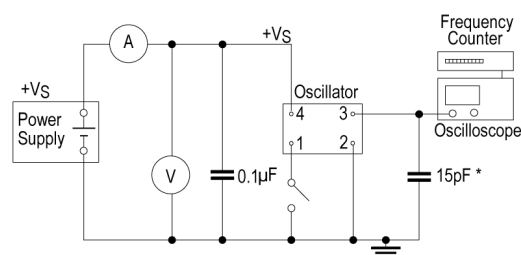
- Pad Connections
- Standby Operation
 - GND
 - Output
 - +VS



Solder Pad Layout



Test Circuit



* Inclusive of jigging and equipment capacitance

Sales Office Contact Details:

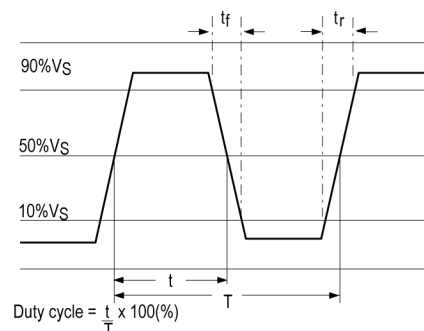
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- Alternative packing options available

Output Waveform**Electrical Specification - maximum limiting values 3.3V $\pm$ 5%**

Frequency Range	Temp Range	Stability		Current Draw	Rise & Fall (10 to 90%)	Duty Cycle %
		Min	Max			
1.80 to <32.0MHz	-10 to 70°C	$\pm$ 25ppm	$\pm$ 100ppm	4.5mA	12.0ns	45/55%
	-40 to 85°C	$\pm$ 50ppm	$\pm$ 100ppm	4.5mA	12.0ns	45/55%
32.00 to <50.0MHz	-10 to 70°C	$\pm$ 25ppm	$\pm$ 100ppm	6.0mA	12.0ns	45/55%
	-40 to 85°C	$\pm$ 50ppm	$\pm$ 100ppm	6.0mA	12.0ns	45/55%

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

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