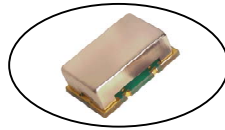




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Clock Oscillator With Standby Mode

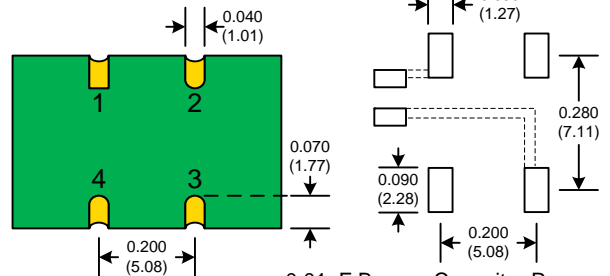
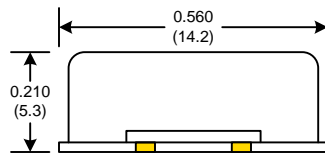
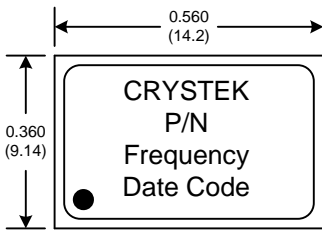
CFS33xx Model

9x14 mm SMD, 3.3V, HCMOS

Frequency Range:	1.544 MHz to 156.250 MHz
Frequency Stability:	±20ppm to ±100ppm
Temperature Range:	0°C to 70°C
	-20°C to 70°C
	-40°C to 85°C
	-45°C to 90°C
	(Option M)
	(Option E)
Storage:	
Input Voltage:	3.3V ±0.3V
Input Current:	
1.544~34.00 MHz	18mA Max
35.00~50.00 MHz	25mA Max
51.00~69.00 MHz	30mA Max
70.00~156.25 MHz	45mA Max
Standby Current:	3µA Typical, 10µA Max
Output:	HCMOS
Symmetry:	45/55% Max @ 50% Vdd
Rise/Fall Time:	
1.54~10.00 MHz	5ns Max @ 20% to 80%
10.10~30.00 MHz	4ns Max @ 20% to 80%
30.10~50.00 MHz	3ns Max @ 20% to 80%
50.10~80.00 MHz	2.5ns Max @ 20% to 80%
80.10~156.25 MHz	2ns Max @ 20% to 80%
Logic:	"0" = 10% Vdd Max "1" = 90% Vdd Min
Start-up Time:	5ms Max
Load:	30pF Max, >80MHz 15pF Max
Jitter RMS: 12kHz~80MHz	0.5ps Typ, 1ps Max
Aging:	<3ppm 1 st year, <1ppm every year thereafter



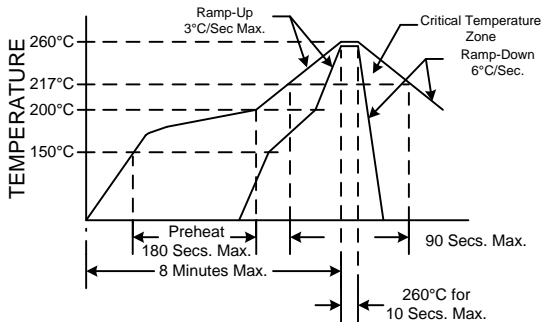
The CFS33xx Series utilizes fundamental and 3rd overtone crystal technology to provide a low jitter output frequency. The oscillator is equipped with power saving standby feature for battery and other low drain applications. Available on tape and reel in quantities of 500ea.



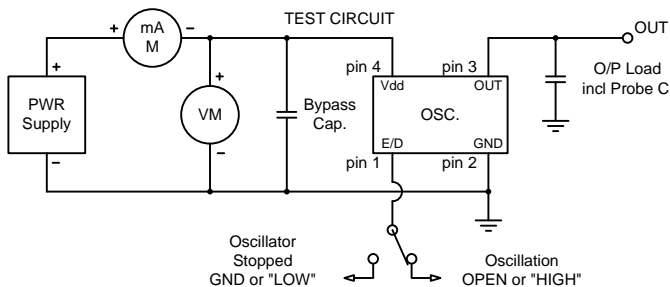
SUGGESTED PAD LAYOUT

0.01µF Bypass Capacitor Recommended

RECOMMENDED REFLOW SOLDERING PROFILE



NOTE: Reflow Profile with 240°C peak also acceptable.



Oscillator Stopped GND or "LOW"
Oscillation OPEN or "HIGH"

Crystek Part Number Guide

Example: CFS3392-44.736MHZ
Example: CFMS3392-44.736MHZ
Example: CFSE3392-44.736MHZ

Temperature			Frequency Stability
0/70°C	-20/70°C	-40/85°C	
CFS3390	CFMS3390	CFSE3390	±100ppm
CFS3392	CFMS3392	CFSE3392	±50ppm
CFS3391	CFMS3391	CFSE3391	±25ppm
CFS3398	N/A	N/A	±20ppm

Standby Function

Function pin 1	Oscillator State
Open	Oscillator Active
"1" level 0.7xVdd Min	Oscillator Active
"0" level 0.3xVdd Max	Oscillator Stopped

Standby Feature: When pin 1 is disabled by applying a logic "0", the output buffer of the oscillator goes into tri-state (high impedance). In addition, the internal oscillator is stopped, hence the entire oscillator consumes less than 10µA from the supply pin.

Specifications subject to change without notice.

TD-102703 Rev. G



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