

# CS33xx Model 5X7 mm SMD, 3.3V, CMOS



# Clock Oscillator With Standby Mode

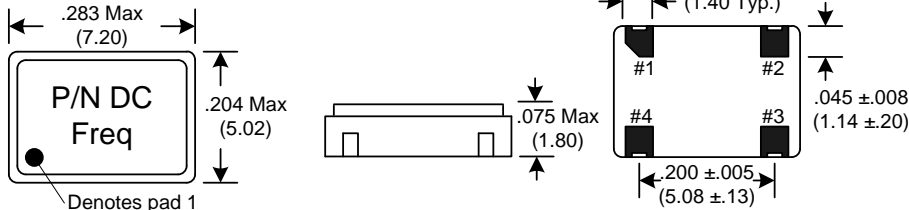
**Frequency Range:** 1.544MHz to 156.250MHz  
**Frequency Stability:** ±20ppm to ±100ppm  
**Temperature Range:** 0°C to 70°C  
 (Option M) -20°C to 70°C  
 (Option E) -40°C to 85°C  
**Storage:** -55°C to 120°C  
**Input Voltage:** 3.3V ± 0.3V  
**Input Current:**  
 1.544~34.00MHz 18mA Max  
 35.00~50.00MHz 25mA Max  
 51.00~69.00MHz 30mA Max  
 70.00~156.25 MHz 45mA Max  
**Standby Current** 3uA Typ., 10uA Max  
**Output:** CMOS  
 Symmetry: 45/55% Max @ 50% Vdd  
 Rise/Fall Time (into 15pF Load):  
 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: 10ms Max  
 Load: 30pF Max, >125MHz 15pF Max  
**Jitter RMS:** 12KHz~80MHz 0.5ps Typ, 1ps Max  
**Aging:** <3ppm 1st/yr, <1ppm every year thereafter



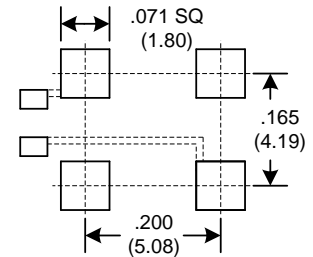
The CS33xx Series utilizes fundamental and 3rd overtone crystal technology to provide a low jitter output frequency. The oscillator is equipped with power saving standby feature for battery and other low drain applications. Available on 16mm tape and reel in quantities of 1K.

Dimensions inches (mm)

All dimensions are Max unless otherwise specified.

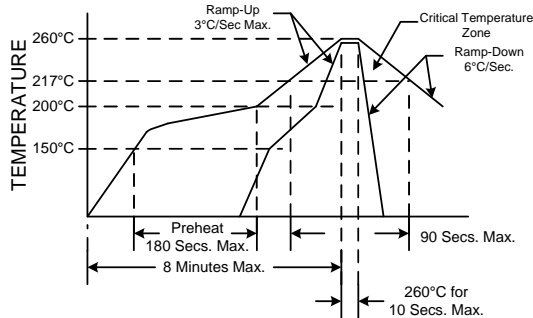


### SUGGESTED PAD LAYOUT



0.01uF Bypass Capacitor Recommended

### RECOMMENDED REFLOW SOLDERING PROFILE

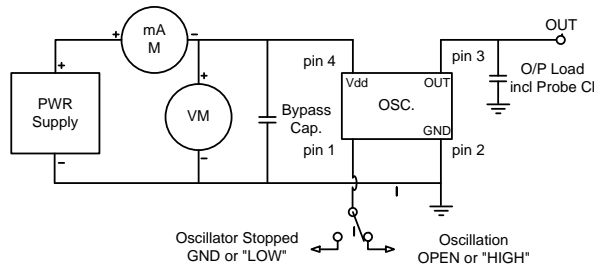


NOTE: Reflow Profile with 240°C peak also acceptable.

### Crystek Part Number Guide

Example: CS3392-44.736MHZ  
 Example: CSM3392-44.736MHZ  
 Example: CSE3392-44.736MHZ

Temperature			Frequency Stability
0/ 70°C	-20/ 70°C	-40/ 85°C	
CS3390	CSM3390	CSE3390	+/- 100ppm
CS3392	CSM3392	CSE3392	+/- 50ppm
CS3391	CSM3391	CSE3391	+/- 25ppm
CS3398	N/A	N/A	+/- 20ppm



### Standby Function

Function pin 1	Oscillator State
Open	Oscillator Active
"1" level .7Vdd Min	Oscillator Active
"0" level 0.3Vdd Max	Oscillator Stopped

\*Standby Mode output = High Impedance

Specifications subject to change without notice.

TD-052703 Rev.E



**Crystek Crystals Corporation**

12730 Commonwealth Drive • Fort Myers, FL 33913  
 239.561.3311 • 800.237.3061 • FAX: 239.561.1025 • www.crystek.com