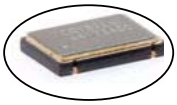
CS33xx Model
5X7 mm SMD, **3.3V, CMOS**

Lead Free RoHS Compliant

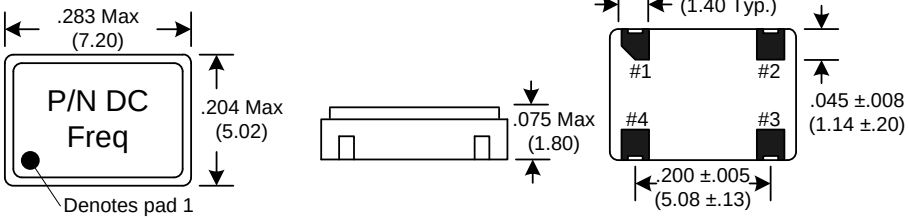
Clock Oscillator With Standby Mode



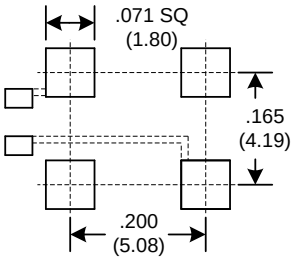
The CS33xx Series utilizes fundamental and 3rd overtone crystal technology to provide a low jitter output frequency. The oscillator is equipped with power saving standby feature for battery and other low drain applications. Available on 16mm tape and reel in quantities of 1K.

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

Dimensions inches (mm)
All dimensions are Max unless otherwise specified.

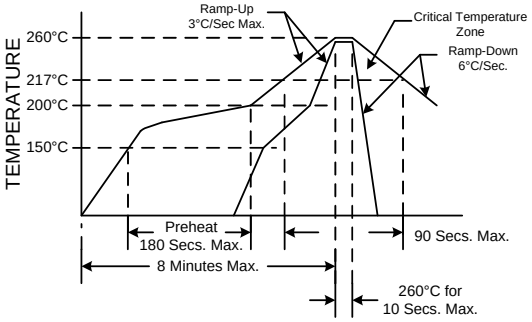


SUGGESTED PAD LAYOUT

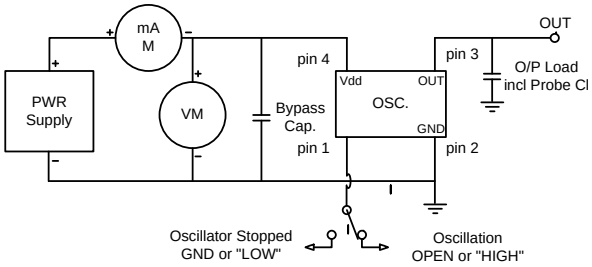


0.01uF Bypass Capacitor Recommended

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

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