



**C33xx Model**  
5x7 mm SMD, 3.3V, HCMOS

<b>Frequency Range:</b>	1.544 to 156.250 MHz
<b>Frequency Stability Options(ppm):</b>	±20, ±25, ±50, ±100
<b>Temperature Range: (standard)</b>	0°C to +70°C
(Option "M")	-20°C to +70°C
(Option "E**")	-40°C to +85°C
<b>Storage Temperature:</b>	-45°C to 90°C
<b>Input Voltage:</b>	3.3V ±0.3V
<b>Input Current:</b>	
(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)	50mA Max
<b>Standby Current:</b>	3uA Typical, 10uA Max
<b>Output:</b>	HCMOS
<b>Symmetry:</b>	45/55% Max @ 50%Vdd
<b>Rise/Fall Time:</b>	
(1.54~10.00 MHz)	5ns Max @ 20% to 80% Vdd
(10.10~30.00 MHz)	4ns Max @ 20% to 80% Vdd
(30.10~50.00 MHz)	3ns Max @ 20% to 80% Vdd
(50.10~80.00 MHz)	2.5ns Max @ 20% to 80% Vdd
(80.10~156.25 MHz)	2ns Max @ 20% to 80% Vdd
<b>Logic:</b>	"0"= 10% Vdd Max "1"= 90% Vdd Min
<b>Disable Time:</b>	200ns Max
<b>Start-up Time:</b>	10ms Max
<b>Load:</b>	15pF Max
<b>Jitter RMS: 12 kHz~80 MHz</b>	0.5ps Typical, 1ps Max
<b>Sub-harmonics:</b>	None
<b>Aging:</b>	<3ppm 1 <sup>st</sup> year, <1ppm every year thereafter

\*available in select frequencies -40/85

Model C33xx is a 1.544 MHz to 156.250 MHz HCMOS Clock Oscillator operating at 3.3Volts. The oscillator utilizes Fundamental or High Q Third Overtone crystal design providing very low Jitter and Phase Noise. No Sub-Harmonics are present in the Output Signal.

**Applications:**

Digital Video  
SONET/SDH/DWDM  
Storage Area Networks  
Broadband Access  
Ethernet, Gigabit Ethernet

**Mechanical:**

Shock: MIL-STD-883, Method 2002, Condition B  
Vibration: MIL-STD-883, Method 2007, Condition A  
Solderability: MIL-STD-883, Method 2003  
Solvent Resistance: MIL-STD-202, Method 215  
Resistance to Soldering Heat: MIL-STD-202, Method 210, Condition I or J

**Environmental:**

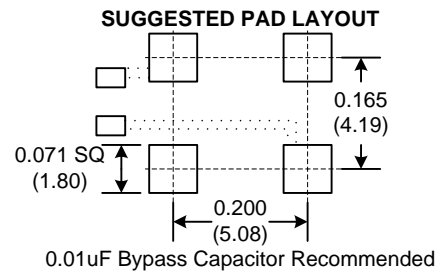
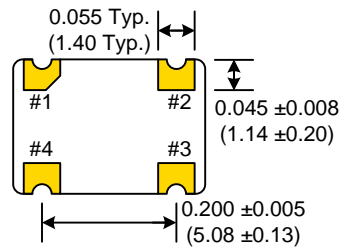
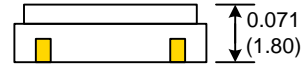
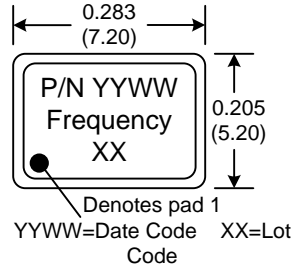
Thermal Shock: MIL-STD-883, Method 1011, Condition A  
Moisture Resistance: MIL-STD-883, Method 1004

Rev: P  
Date: 16-Feb-2016  
Page 1 of 2

Specifications subject to change without notice.



## C33xx Model 5x7 mm SMD, 3.3V, HCMOS



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

Enable/Disable	
Function pin 1	Output pin
Open "1" level 0.7xVcc Min "0" level 0.3xVcc Max	Active Active High Z

PIN	Function
1	E/D
2	GND
3	OUT
4	Vcc

## Crystek Part Number Guide

C X 3 3 9 X - 44.736

#1 #2 #3

#1 Temp. Range: Blank = 0/70°C, M= -20/70°C, E= -40/85°C  
#2 Stability: (see Table 1)  
#3 Frequency in MHz: 3 or 6 decimal places

Example:

C3392-44.736MHz = 3.3V, 0/70°C, ±50ppm, 44.736MHz  
CM3391-44.736MHz = 3.3V, -20/70°C, ±25ppm, 44.736MHz  
CE3390-44.736MHz = 3.3V, -40/85°C, ±100ppm, 44.736MHz

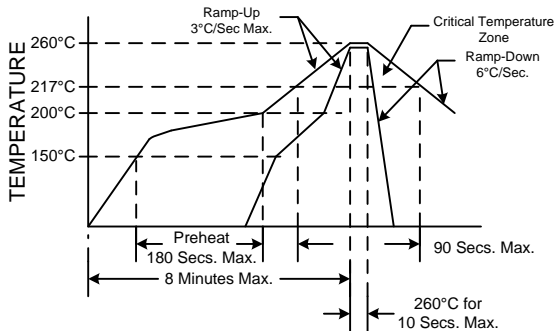
### Stability Indicator

0	± 100ppm
2	± 50ppm
1	± 25ppm
8*	± 20ppm

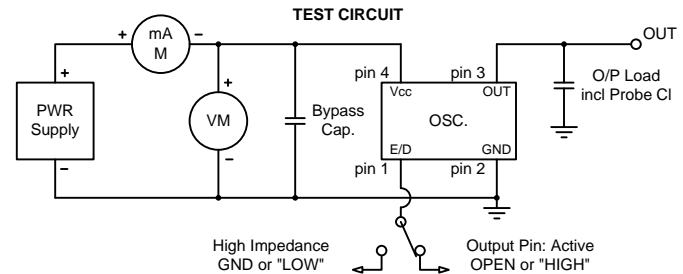
\*available in select frequencies -40/85

Table 1

### RECOMMENDED REFLOW SOLDERING PROFILE



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



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Rev: P  
Date: 16-Feb-2016  
Page 2 of 2

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