



## C33xx Model 5×7 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:</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)                         | 5nsec Max @ 20% to 80% Vdd                              |
| (10.10~30.00 MHz)                        | 4nsec Max @ 20% to 80% Vdd                              |
| (30.10~50.00 MHz)                        | 3nsec Max @ 20% to 80% Vdd                              |
| (50.10~80.00 MHz)                        | 2.5nsec Max @ 20% to 80% Vdd                            |
| (80.10~156.25 MHz)                       | 2nsec Max @ 20% to 80% Vdd                              |
| <b>Logic:</b>                            | "0"= 10% Vdd Max<br>"1"= 90% Vdd Min                    |
| <b>Disable Time:</b>                     | 200nSec Max                                             |
| <b>Start-up Time:</b>                    | 1mSec Typical, 2mSec Max                                |
| <b>Load:</b>                             | 30pF Max, >125 MHz 15pF Max                             |
| <b>Jitter RMS: 12 kHz~80 MHz</b>         | 0.5psec Typical, 1psec 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: L  
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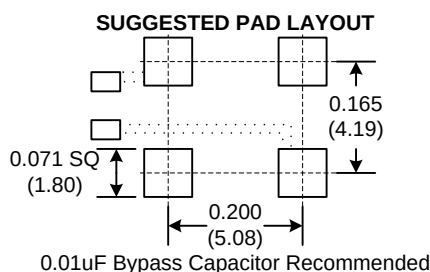
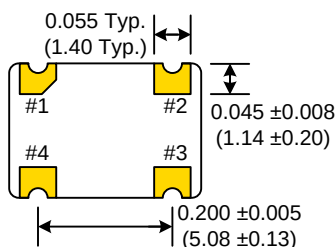
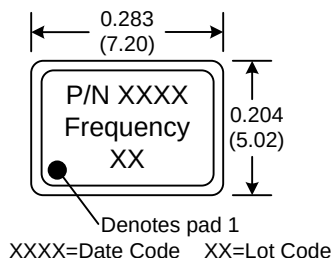
Specifications subject to change without notice.



## Clock Oscillator



### C33xx Model 5×7 mm SMD, 3.3V, HCMOS



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

| Tri-State Function                                     |                            |
|--------------------------------------------------------|----------------------------|
| Function pin 1                                         | Output pin                 |
| Open<br>"1" level 0.7×Vcc Min<br>"0" level 0.3×Vcc Max | Active<br>Active<br>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

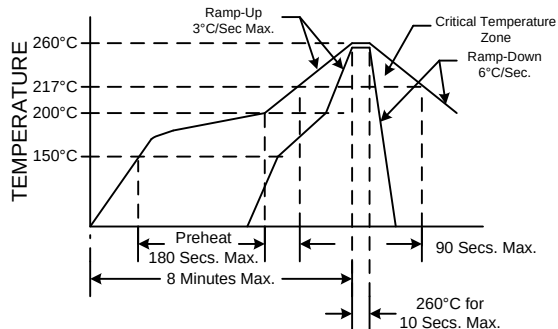
#### Stability Indicator

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

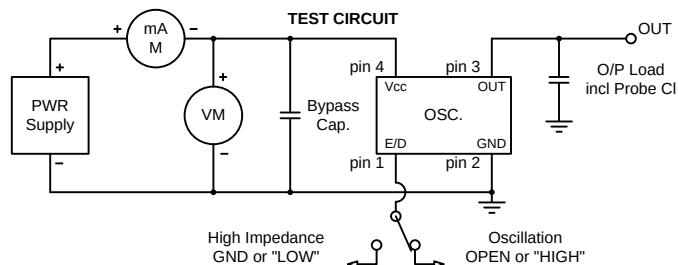
\*available in select frequencies -40/85

Table 1

#### RECOMMENDED REFLOW SOLDERING PROFILE



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



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[CE3392-49.152](#) [CE3391-49.152](#) [CE3390-49.152](#) [C3390-12.352](#) [CE3392-125.000](#) [C3391-45.000](#) [C3390-45.000](#)  
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