



## C32xx Model

5x7 mm SMD, 5V, HCMOS/TTL

<b>Frequency Range:</b>	1.544 MHz to 100.000 MHz
<b>Frequency Stability Options:</b>	±20*, ±25, ±50, ±100 (ppm)
<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>	5.0V ±0.5V
<b>Input Current:</b>	60mA Max
<b>Output:</b>	HCMOS/TTL
<b>Symmetry:</b>	
(Standard "2")	40/60% Max @ 50% Vdd
(Option "9")	45/55% Max @ 50% Vdd
<b>Rise/Fall Time:</b>	6ns Max @ 20% to 80% Vdd
<b>Logic:</b>	"0" = 10% Vdd Max
	"1" = 90% Vdd Min
<b>Disable Time:</b>	200nSec Max
<b>Start-up Time:</b>	1mSec Typ., 2mSec Max
<b>Load:</b>	50pF/10TTL Max
<b>Jitter RMS:</b> 12kHz~20MHz	0.5ps Typ, 1ps Max
<b>Sub-harmonics:</b>	None
<b>Aging:</b>	<3ppm 1 <sup>st</sup> /yr, <1ppm every year thereafter

\*available in select frequencies -40/85

Model C32xx is a 1.544 MHz to 100.000 MHz HCMOS Clock Oscillator operating at 5.0Volts. 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: K

Date: 10-Jan-12

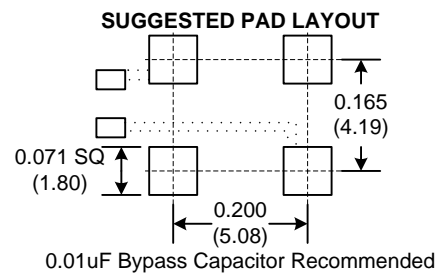
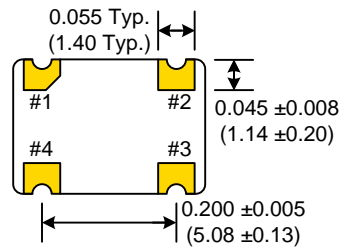
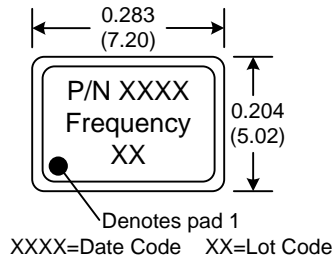
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Specifications subject to change without notice.



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

Tri-State Function	
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 X 9 X - 44.736  
#1 #2 #3 #4

#1 Temp. Range: Blank = 0/70°C, M = -20/70°C, E = -40/85°C  
#2 Symmetry: 2 = 40/60%, 9 = 45/55%  
#3 Stability: (see Table 1)  
#4 Frequency in MHz: 3 or 6 decimal places

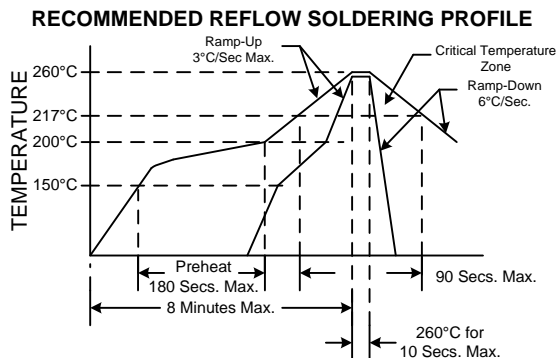
Example:  
C3292-44.736MHz = 5.0V, 0/70°C, 40/60%, ±50ppm, 44.736MHz  
CM3991-44.736MHz = 5.0V, -20/70°C, 45/55%, ±25ppm, 44.736MHz  
CE3290-44.736MHz = 5.0V, -40/85°C, 40/60%, ±100ppm, 44.736MHz

### Stability Indicator

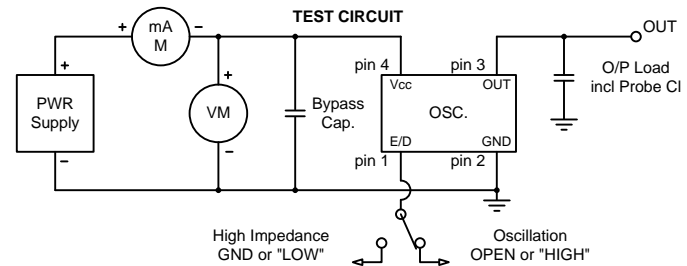
0	±100ppm
2	± 50ppm
1	± 25ppm
8*	± 20ppm

\*available in select frequencies -40/85

Table 1



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



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