Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Clock Oscillator

C32xx Model
5×7 mm SMD, 5V, HCMOS/TTL

RoHS Compliant

Frequency Range:	1.544 MHz to 100.000 MHz
Frequency Stability Options:	±20*, ±25, ±50, ±100 (ppm)
Temperature Range: (standard)	0°C to +70°C
(Option "M")	-20°C to +70°C
(Option "E"*)	-40°C to +85°C
Storage:	-45°C to 90°C
Input Voltage:	5.0V ±0.5V
Input Current:	60mA Max
Output:	HCMOS/TTL
Symmetry:	
(Standard "2")	40/60% Max @ 50% Vdd
(Option "9")	45/55% Max @ 50% Vdd
Rise/Fall Time:	6ns Max @ 20% to 80% Vdd
Logic:	"0" = 10% Vdd Max
	"1" = 90% Vdd Min
Disable Time:	200nSec Max
Start-up Time:	1mSec Typ., 2mSec Max
Load:	50pF/10TTL Max
Jitter RMS: 12kHz~20MHz	0.5ps Typ, 1ps Max
Sub-harmonics:	None
Aging:	<3ppm 1st/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
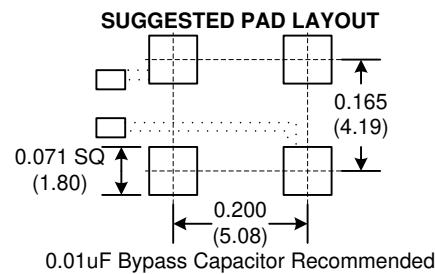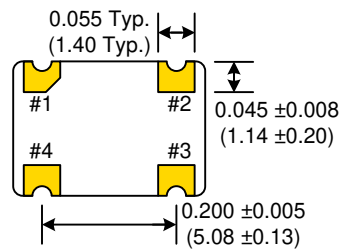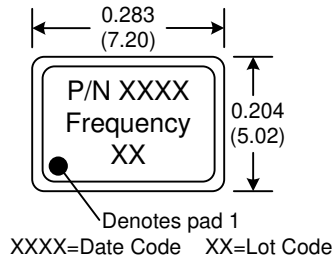Moisture Resistance: MIL-STD-883, Method 1004

Rev: K
Date: 10-Jan-12
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Specifications subject to change without notice.

RoHS Compliant

C32xx Model
5×7 mm SMD, 5V, HCMOS/TTL

0.283 (7.20)

P/N XXXX
Frequency
XX

0.204 (5.02)

Denotes pad 1
XXXX=Date Code   XX=Lot Code

0.071 (1.80)

0.055 Typ. (1.40 Typ.)

#1   #2
#4   #3

0.045 ±0.008 (1.14 ±0.20)

0.200 ±0.005 (5.08 ±0.13)

SUGGESTED PAD LAYOUT

0.165 (4.19)

0.071 SQ (1.80)

0.200 (5.08)

0.01uF Bypass Capacitor Recommended

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

Tri-State Function

Function pin 1	Output pin
Open	Active
"1" level 0.7×Vcc Min	Active
"0" level 0.3×Vcc Max	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
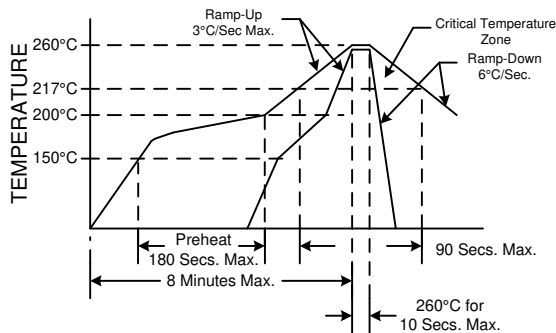CE3290-44.736MHz = 5.0V, -40/85°C, 40/60%, ±100ppm, 44.736MHz

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

*available in select frequencies -40/85

Table 1

RECOMMENDED REFLOW SOLDERING PROFILE

Ramp-Up 3°C/Sec. Max.
Critical Temperature Zone
Ramp-Down 6°C/Sec.

TEMPERATURE

260°C
217°C
200°C
150°C

Preheat 180 Secs. Max.
90 Secs. Max.
8 Minutes Max.
260°C for 10 Secs. Max.

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

TEST CIRCUIT

mA M
PWR Supply
VM
Bypass Cap.
pin 4   pin 3
Vcc   OUT
OSC.
E/D   GND
pin 1   pin 2
O/P Load incl Probe Cl
OUT

High Impedance GND or "LOW"
Oscillation OPEN or "HIGH"

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