# **CARDINAL COMPONENTS**

## **Ceramic Surface Mount**

• 1.25 mm height

· Glass-sealed housing for high reliability

· Three industry standard footprints

• Economic cost

Series CX12A

CX12B CX12C

Part Numbering Example: CX12A Z - A1 B2 C2 60 - 9.83 D18 - 3

CX12A

**B2** 

 $C1 = \pm 100$ 

9.83

**D18** 

SERIES ADDED FEATURES OPERATING TEMP. STABILITY TOLERANCE RESISTANCE FREQUENCY  $B1 = \pm 100$ 

CX12A BLANK = BULK PACK A0 = -10°C ~  $Z = TAPE AND REEL A1 = -10°C \sim +70°C$  $A2 = -40^{\circ}C \sim +85^{\circ}C$ 

 $B2 = \pm 50$  $C2 = \pm 50$  $B3 = \pm 30$  $A3 = -55^{\circ}C \sim +125^{\circ}C$  $B4 = \pm 10$ 

+60°C

 $C3 = \pm 30$ C4 =

SEE CHART

**BELOW** 

D16.18.20.ETC. BLANK: FUND. DS = SERIES

-3: 3rd OT -5: 5th OT

-7: 7th OT -BT: BT Cut

\*NOTE: The above ABC combinations cover basic specification options. We tailor our crystal specifications to meet customer requirements. Please contact our sales department if you don't see exactly what you need.

### **Specifications:**

Frequency Range: 9.83 ~ 100.000 MHz

**Operating Temperature:** -10°C ~ +60°C Standard

-40°C ~ +85°C

Frequency Stability: ±100 ppm Standard

± 50 ppm

**Frequency Tolerance:** ± 50 ppm Standard

(at 25°C)

Load Capacitance: Standard 18 pF or series.

Other values are available.

Resistance: Maximum resistance corresponds to frequency.

See chart below.

Standard: Mode: Fundamental or 3rd Overtone

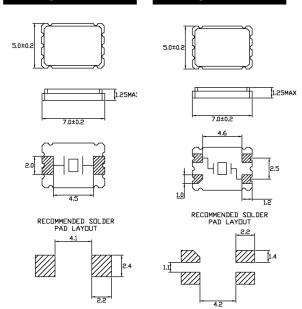
Shunt Capacitance: 5 pF Max

Aging: ± 5 ppm/year Drive Level: 0.1 mW

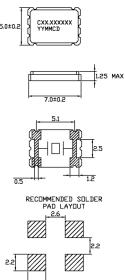
Packaging: Tape and Reel (1K per Reel)

#### CX12A

#### CX12B



CX12C



Resistance Chart: All resistances are maximum values.

EQUIVALENT SERIES RESISTANCE (ESR), MODE OF OPERATION (MODE), AND CUT					
Frequency MHz	$ESR(\Omega)$	Mode/cut	Frequency MHz	ESR (Ω)	Mode/cut
9.83~11.999	60 Max	Fund./AT	28.000~30.999	100 Max	3rd Overtone/AT
12.000~15.999	60 Max	Fund./AT	31.000~34.999	100 Max	3rd Overtone/AT
16.000~25.999	40 Max	Fund./AT	35.000~49.999	60 Max	3rd Overtone/AT
26.000~41.000	40 Max	Fund./AT	50.000~100.000	60 Max	3rd Overtone/AT



Cardinal Components, Inc., 155 Rt. 46 W, Wayne, NJ. 07470 TEL: (973) 785-1333 FAX: (973) 785-0053 http://www.cardinalxtal.com E-Mail: cardinal@cardinalxtal.com

30