## CARDINAL COMPONENTS

## **Ceramic Surface Mount**

· 1.25 mm height

· Glass-sealed housing for high reliability

Two industry standard footprints

Economic cost

Series

CX12A CX12B



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

CX12A Z A1\* B2 C2 60 9.83 D18

SERIES ADDED FEATURES OPERATING TEMP. STABILITY TOLERANCE RESISTANCE FREQUENCY LOAD CAP CX12A BLANK = BULK PACK A0 = -10°C~ +60°C  $B1 = \pm 100$  $C1 = \pm 100$ SEE CHART D16,18,20,ETC. BLANK: FUND. -3: 3rd OT Z = TAPE AND REEL A1 =  $-10^{\circ}$ C ~  $+70^{\circ}$ C  $B2 = \pm 50$ **BELOW**  $C2 = \pm 50$ DS = SERIES  $A2 = -40^{\circ}C \sim +85^{\circ}C$  $B3 = \pm 30$  $C3 = \pm 30$ -5: 5th OT -7: 7th OT  $A3 = -55^{\circ}C \sim +125^{\circ}C$  $B4 = \pm 10$  $C4 = \pm 10$ -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.

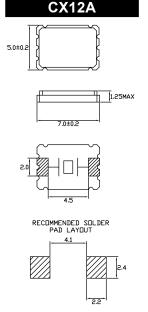
See chart below.

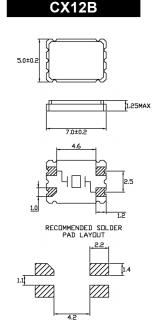
**Standard:** Mode: Fundamental or 3rd Overtone

Shunt Capacitance: 5 pF Max

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

Packaging: Tape and Reel (1K per Reel)





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

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