CARDINAL COMPONENTS

Ceramic Surface Mount

- · Lowest maximum drive level available
- · Widest frequency range
- · Very tight stabilities

Series CX5



Part Numbering Example: CX5 Z - A1 - B2 - C2 60 - 10.0 D18 - 3

CX5	Z	A1 *	B2	C ₂	60	10.0	D18	- 3
SERIES	ADDED FEATURES	OPERATING TEMP.	STABILITY	TOLERANCE	RESISTANCE	FREQUENCY	LOAD CAP.	OVERTONE
CX5	BLANK = BULK PACK	A0 = -10°C ~ +60°C	B1 = ±100	$C1 = \pm 100$	SEE CHART		D16,18,20,ETC.	BLANK: FUND.
	Z = TAPE AND REEL	$A1 = -10^{\circ}C \sim +70^{\circ}C$	$B2 = \pm 50$	$C2 = \pm 50$	BELOW		DS = SERIES	-3: 3rd OT
		$A2 = -40^{\circ}C \sim +85^{\circ}C$	$B3 = \pm 30$	$C3 = \pm 30$				-5: 5th OT
		$A3 = -55^{\circ}C \sim +125^{\circ}C$	$B4 = \pm 10$	$C4 = \pm 10$				-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:

9.000 ~ 40.320 MHz AT-Cut Fundamental 40.000 ~ 90.000 MHz 3rd Overtone 90.000 ~ 150.000 MHz 5th Overtone

0°C ~ +70°C **Operating Temperature:** Standard

-40°C ~ +85°C

Frequency Stability: ± 50 ppm Standard

Stabilities from ± 5 ppm available.

Frequency Tolerance: ± 50 ppm Standard

(at 25°C) Tolerances from ± 10 ppm available.

Load Capacitance: Parallel or series.

Please specify your required load.

Resistance: Maximum resistance corresponds to frequency.

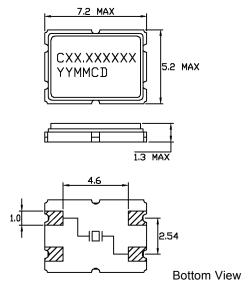
See chart below.

Shunt Capacitance: 7 pF Max Standard:

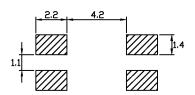
Aging: ± 3 ppm first year Drive Level: 50 µW Max

Packaging: Tape and Reel (1K per Reel)

CX5



RECOMMENDED SOLDER PAD LAYOUT



Resistance Chart: All resistances are maximum

EQUIVALENT SERIES RESISTANCE (ESR), MODE OF OPERATION (MODE), AND CUT									
Frequency MHz	$ESR(\Omega)$	Mode/cut	Frequency MHz	ESR (Ω)	Mode/cut				
9.500~10.999	60 Max	Fund./AT	40.000~49.999	80 Max	3rd Overtone/AT				
11.000~13.999	50 Max	Fund./AT	50.000~89.999	50 Max	3rd Overtone/AT				
14.000~15.999	40 Max	Fund./AT	90.000~150.000	100 Max	5th Overtone/AT				
16.000~39.999	30 Max	Fund./AT							



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