

CX-05 micro smd crystal (16.0 ~ 80.0)MHz fundamental

- # (2.5 x 2.0)mm ceramic package
- # high reliability
- # 8.0mm tape and reel
- # AT cut fundamental

Electrical specification

Case style	CX05: height 0.5mm
Frequency range	(16.0 ~ 80.0)MHz, fundamental
Standard frequencies	16.00MHz, 24.00MHz, 25.00MHz, 26.00MHz, 38.839364MHz, 40.00MHz,
Adjustment tolerance	from ± 15 ppm at +25°C, frequency dependent
Temperature tolerance	from ± 10 ppm, frequency and temperature range dependent
Operating temperature	(0 +50)°C ~ (-40 +85)°C
Storage temperature	(-40 +85)°C
Load	8pF, 10pF typical
Shunt capacitance C_0	7.0pF max.
Drive level	200µW max.
Q factor	80,000 typical
Ageing	± 5 ppm max. per year
Insulation resistance	500Meg. ohm min. at 100Vd.c.

Ordering information

The CX-05 smd crystals may be specified within their available frequency range together with load capacitance, adjustment tolerance, temperature tolerance and temperature range with each parameter coded as follows

Example CX-05 crystal, 20.00MHz, load 10pF, ± 20 ppm at +25°C, ± 10 ppm(-10 +60)°C

TFC PART NUMBER CX05X 20.00M C C B I

'CX05X' crystal series: CX05X = CX-05

'20.00M' frequency: 20.00M = 20.00MHz, frequency range from (16.0 ~ 80.0)MHz fundamental

'C' load capacitance: C = 10pF

'C' adjustment tolerance at +25°C: C = ± 20 ppm

'B' temperature tolerance: B = ± 10 ppm

'I' temperature range: I = (-10 +60)°C

Load capacitance A: 8pF, C: 10pF

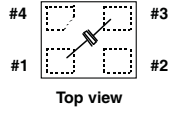
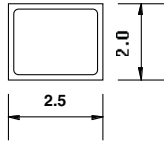
Adjustment tolerance C: ± 20 ppm, E: ± 30 ppm, G: ± 50 ppm, H: ± 100 ppm, P: ± 15 ppm

Temperature tolerance B: ± 10 ppm, C: ± 20 ppm, E: ± 30 ppm, G: ± 50 ppm, H: ± 100 ppm, P: ± 15 ppm

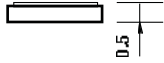
Temperature range B: (0 +50)°C, I: (-10 +60)°C, C: (-20 +70)°C, L: (-40 +85)°C

CX-05 micro smd crystal

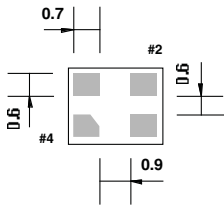
CX-05 dimensions(mm) shown x5 full size



Suggested land pattern

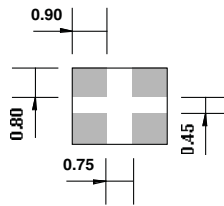


Pad size (0.9 x 0.8)mm



Bottom view

Pads #2 and #4
connected to metal top



Life size 1:1

ESR - equivalent series resistance

frequency range(MHz)	cut/mode	esr(Ω)
(16.0 ~ 20.0)	AT1	<150
(20.0 ~ 30.0)	AT1	<100
(30.0 ~ 80.0)	AT1	<60