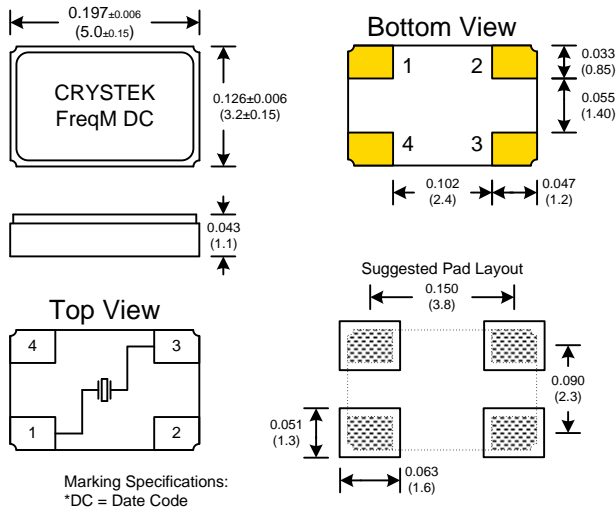
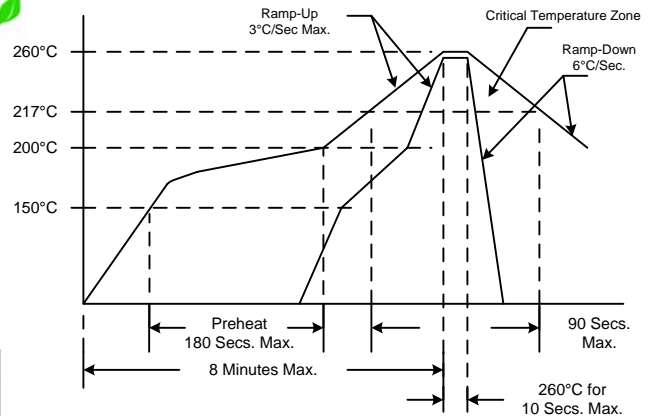


CSX3 Model

3.2x5.0 mm Ultra Miniature SMD Crystal



RECOMMENDED REFLOW SOLDERING PROFILE



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

PIN	Signal
1	Crystal
2	GND
3	Crystal
4	GND

Packaging Specifications:

1K ea. Tape and Real

Dimensions inches (mm)
All dimensions are maximum unless otherwise specified

- Frequency Range: 8.000 MHz to 50.000 MHz (Fund)
40.000 MHz to 80.000 MHz (3rdOT)
- Calibration Tolerance: ±10ppm to ±50ppm
- Frequency Stability: ±15ppm to ±100ppm
- Operating Temp. Ranges: -10°C to 70°C
-40°C to 85°C
- Storage Temp. Range: -40°C to 85°C
- Resistance: See Table 1
- Shunt Cap: 5pF Max
- Holder Type: 3.2x5.0mm SMD

- Aging: ±3ppm/1st year Max
- Drive level: 20uW Typical, 300uW Max
- Motional Capacitance: Not Specified
- Spurious Response: Not Specified
- C0/C1 Ratio: Not Specified
- Pullability: Not Specified
- Trim Sensitivity: Not Specified
- Temp. Coefficient: Not Specified

Custom Designs Available

Build Your Own P/N

CSX3 - X X X - X X - Freq

Frequency Tolerance at 25°C	
A	±10 ppm
B	±25 ppm
C	±50 ppm

Frequency Stability over Temp Range		
A	±15 ppm	(-10 to 70°C)
B	±25 ppm	(-10 to 70°C)
C	±50 ppm	(-10 to 70°C)
D	±100 ppm	(-10 to 70°C)
E	±50 ppm	(-40 to 85°C)
F	±100 ppm	(-40 to 85°C)
G	±30 ppm	(-40 to 85°C)

Mode
"1" or "Blank" Fundamental 8 - 50 MHz
"3" 3 rd Overtone 40 - 80 MHz

Load Capacitance	
S	Series
10	10 pF
12	12 pF
13	13 pF
14	14 pF
16	16 pF
18	18 pF
20	20 pF
22	22 pF
25	25 pF
32	32 pF

Resistance at series resonance	
Freq. (MHz)	Max ESR (ohms)
8.0 - 10.0 (F)	200
>10.0 - 14.0 (F)	150
>14.0 - 26.0 (F)	120
>26.0 - 50.0 (F)	60
40.0 - 80.0 (3 rd)	80

Table 1

Example:

CSX3-AB1-18-19.680 = ±10ppm at 25°C, ±25ppm -10 to 70°C, Fundamental, 18pF Load Cap, 19.680MHz

Specifications subject to change without notice.

TD-021011 Rev. N