CRYSTEK CRYSTALS
A Division of Crystek Corporation

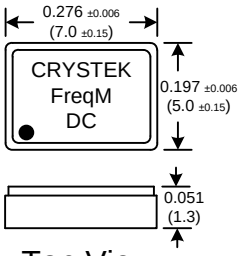
Quartz Crystal

Designed to meet the precision and space requirements needed for wireless applications.

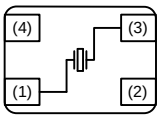
CSX1 Model

5×7 mm Low Profile SMD Crystal

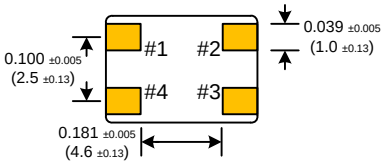
RoHS Compliant



Top View

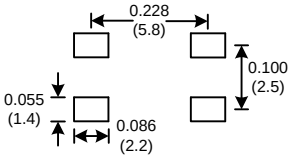


Bottom View



Pin	Signal
1	Crystal
2	GND
3	Crystal
4	GND

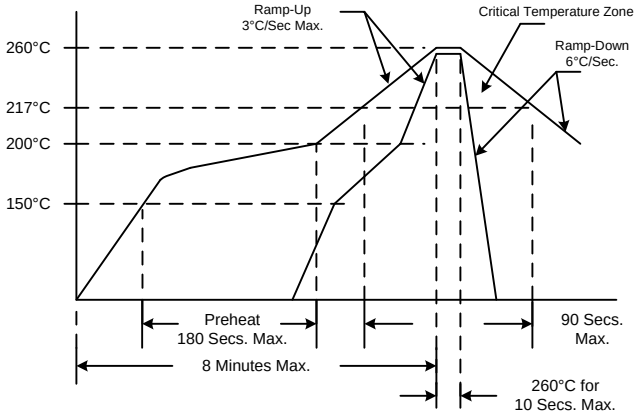
Suggested Pad Layout



Marking Specifications:
*DC = Date Code

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

RECOMMENDED REFLOW SOLDERING PROFILE



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

Packaging Specifications: 1K ea. Tape and Real

Frequency Range:	8.000 MHz to 50.000 MHz (Fund) 40.000 MHz to 100.000 MHz (3rd OT)
Calibration Tolerance:	±10ppm to ±50ppm
Frequency Stability:	±15ppm to ±100ppm
Operating Temp. Ranges:	0°C to 70°C -20°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:	5×7mm SMD
Aging:	±3ppm/1st year Max
Drive level:	50uW 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

CSX1 - X X X - XX - Freq

Frequency Tolerance at 25°C

A	±10 ppm
B	±25 ppm
C	±50 ppm

Frequency Stability over Temp Range

N	±15 ppm	(0 to 70°C)
O	±20 ppm	(0 to 70°C)
P	±25 ppm	(0 to 70°C)
R	±50 ppm	(0 to 70°C)
S	±100 ppm	(0 to 70°C)
F	±15 ppm	(-20 to 70°C)
E	±20 ppm	(-20 to 70°C)
B	±25 ppm	(-20 to 70°C)
C	±50 ppm	(-20 to 70°C)
D	±100 ppm	(-20 to 70°C)
H	±20 ppm	(-40 to 85°C)
J	±25 ppm	(-40 to 85°C)
K	±50 ppm	(-40 to 85°C)
L	±100 ppm	(-40 to 85°C)

Mode

"1" or "Blank"
Fundamental 8 - 50 MHz

"3"
3rd Overtone 40 - 100 MHz

Load Capacitance

S	Series
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)	70
>10.0 - 14.0 (F)	60
>14.0 - 20.0 (F)	50
>20.0 - 50.0 (F)	40
40.0 - 60.0 (3rd)	120
>60.0 - 100.0 (3rd)	80

Table 1

Example:

CSX1-AB-18-45.000 = ±10ppm at 25°C, ±25ppm
-20 to 70°C, Fundamental, 18pF Load Cap, 45.000 MHz

Specifications subject to change without notice.

TD-021009 Rev. J

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