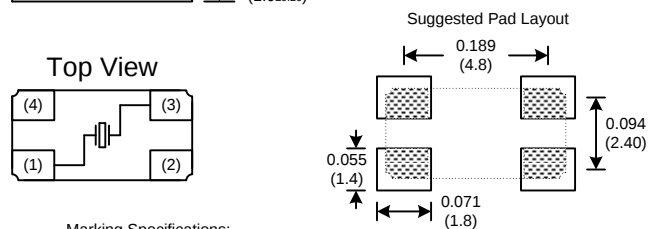
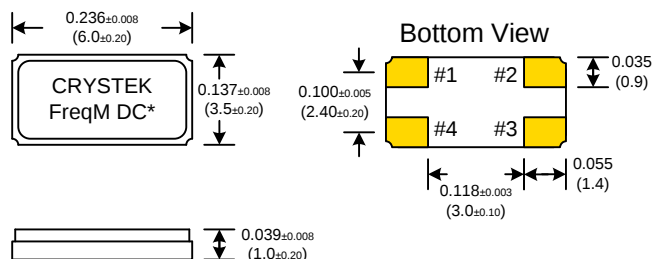


# Quartz Crystal

## CSX2 Model

### 3.5×6.0 mm Low Profile SMD Crystal

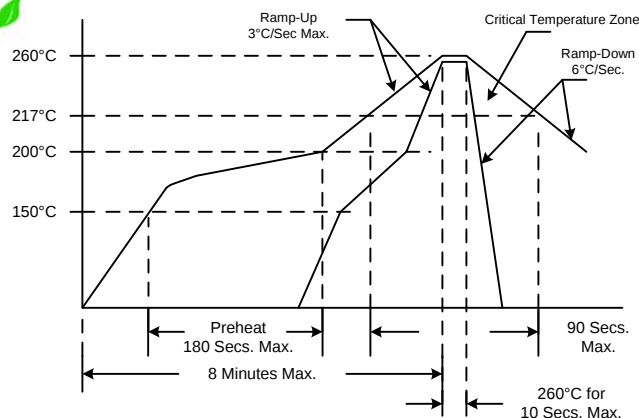


Marking Specifications:  
\*DC = Date Code

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



## RECOMMENDED REFLOW SOLDERING PROFILE



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

| PIN | Signal  |
|-----|---------|
| 1   | Crystal |
| 2   | GND     |
| 3   | Crystal |
| 4   | GND     |

## Packaging Specifications:

1K ea. Tape and Real

Frequency Range: 8.000 MHz to 50.000 MHz (Fund)  
40.000 MHz to 100.000 MHz (3<sup>rd</sup>OT)

Calibration Tolerance:  $\pm 10$ ppm to  $\pm 50$ ppm

Frequency Stability:  $\pm 15$ ppm to  $\pm 100$ ppm

Operating Temp. Ranges: -20°C to 70°C

Storage Temp. Range: -40°C to 85°C

Resistance: See Table 1

Shunt Cap: 5pF Max

Holder Type: 3.5×6.0mm SMD

Aging:  $\pm 3$ ppm/1<sup>st</sup> yr 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

CSX2 - X X X - X X - Freq

| Frequency Tolerance at 25°C |              |
|-----------------------------|--------------|
| A                           | $\pm 10$ ppm |
| B                           | $\pm 25$ ppm |
| C                           | $\pm 50$ ppm |

| Frequency Stability over Temp Range |               |               |
|-------------------------------------|---------------|---------------|
| A                                   | $\pm 15$ ppm  | (-20 to 70°C) |
| B                                   | $\pm 25$ ppm  | (-20 to 70°C) |
| C                                   | $\pm 50$ ppm  | (-20 to 70°C) |
| D                                   | $\pm 100$ ppm | (-20 to 70°C) |

| Mode                                         |
|----------------------------------------------|
| "1" or "Blank"<br>Fundamental 8 - 50 MHz     |
| "3"<br>3 <sup>rd</sup> Overtone 40 - 100 MHz |

| Load Capacitance |        |
|------------------|--------|
| S                | Series |
| 12               | 12 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)                  | 150            |
| >10.0 - 14.0 (F)                | 80             |
| >14.0 - 50.0 (F)                | 50             |
| 40.0 - 100.0 (3 <sup>rd</sup> ) | 80             |

Table 1

## Example:

CSX2-AB-18-44.736  $\pm$  10ppm at 25°C,  $\pm$  25ppm -20 to 70°C, Fundamental, 18pF Load Cap, 44.736 MHz

Specifications subject to change without notice.

TD-021010 Rev. L

# Mouser Electronics

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[CSX2-AA-16-168000MHZ](#) [CSX2-AA-16-15.2000MHZ](#)