

# CSMC3(4) SERIES

- SMD Ceramic 6mm x 3.5mm (2Pad and 4Pad)
- Wide Frequency Range
- Tight Tolerance and Stability
- RoHS Compliant



**ASCEND**

FREQUENCY DEVICES

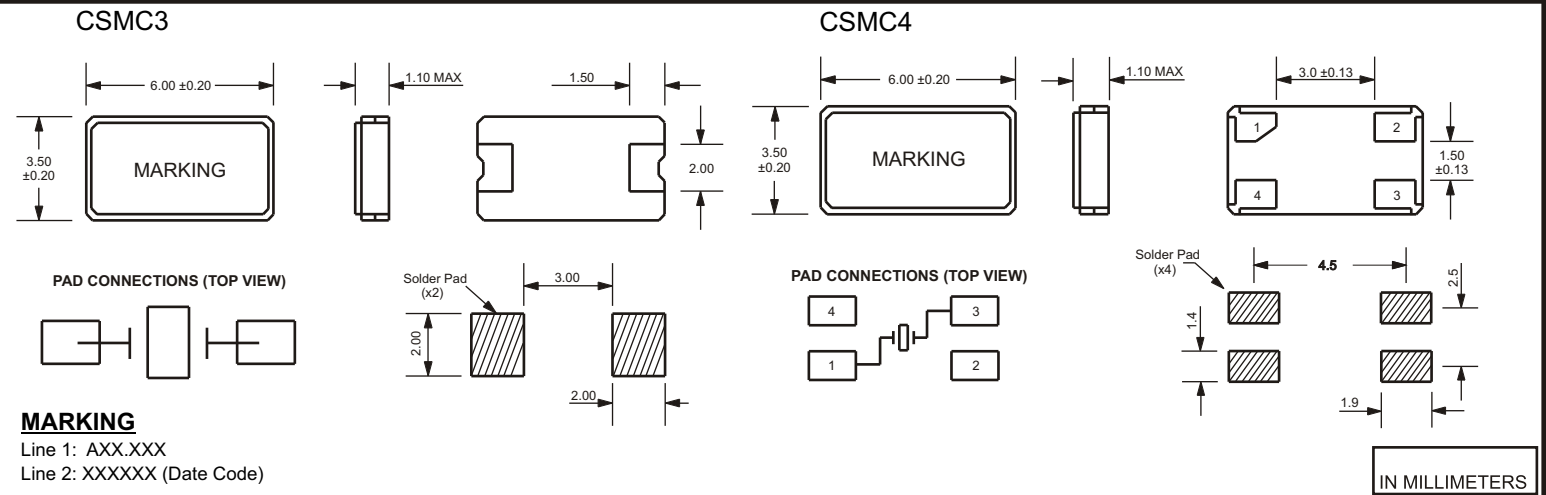
## Electrical Specifications

|                                |  |
|--------------------------------|--|
| Frequency Range:               | 8.000MHz to 49.000MHz  |
| Frequency Tolerance/Stability: | Select from options below                                    |
| Operating Temperature Range:   | Select from options below                                    |
| Storage Temperature Range:     | -55°C to +125°C  |
| Aging:                         | ±5ppm / first year Maximum                                   |
| Shunt Capacitance:             | 5pF Maximum  |
| Load Capacitance:              | Select from options below                                    |
| Equivalent Series Resistance:  | See ESR Table Below  |
| Mode of Operation:             | Fundamental or 3rd Overtone                                  |
| Drive Level:                   | 10µWatts Typical / 100µWatts Maximum                         |
| Insulation Resistance:         | 500 Megaohms Minimum at 100Vdc ±15V                          |
| Hermeticity of Seal: :         | 1 x 10 <sup>-7</sup> mPa (m³/s) Maximum                      |
| Shock Resistance:              | ±5ppm Maximum (drop test onto a hard wooden board from 75cm) |

## Equivalent Series Resistance Table

| Frequency Range        | ESR (Ohms) | Mode / Cut       | Frequency Range        | ESR (Ohms) | Mode / Cut       |
|------------------------|------------|------------------|------------------------|------------|------------------|
| 9.6000MHz to 11.999MHz | 60 Maximum | Fundamental / AT | 24.001MHz to 49.000MHz | 35 Maximum | Fundamental / AT |
| 12.000MHz to 24.000MHz | 50 Maximum | Fundamental / AT |                        |            |                  |

## Mechanical Dimensions



### MARKING

Line 1: AXX.XXX  
Line 2: XXXXXX (Date Code)

## Part Numbering Guide

**CSMC3 AA 1 20 1 - 33.000M - TR**

### Series

CSMC3 = Ceramic SMD (6mm x 3.5mm, 2 Pad)  
CSMC4 = Ceramic SMD (6mm x 3.5mm, 4 Pad)

### Frequency Tolerance

A = ±5ppm      E = ±25ppm  
B = ±10ppm    F = ±30ppm  
C = ±15ppm    G = ±50ppm  
D = ±20ppm    H = ±100ppm

### Frequency Stability

A = ±5ppm      E = ±25ppm  
B = ±10ppm    F = ±30ppm  
C = ±15ppm    G = ±50ppm  
D = ±20ppm    H = ±100ppm

### Temperature Range

1 = -10°C to +60°C  
2 = -20°C to +70°C  
3 = -40°C to +85°C

Not all temperature/stability options are available. Please consult with factory for current capabilities

### Packaging

Blank = Bulk  
TR = Tape and Reel

### Frequency

### Mode of Operation

1 = AT Fundamental  
3 = AT 3rd Overtone

### Load Capacitance

SR = Series      16 = 16pF  
08 = 8pF          18 = 18pF  
09 = 9pF          20 = 20pF  
10 = 10pF        32 = 32pF  
12 = 12pF        XX = Other

