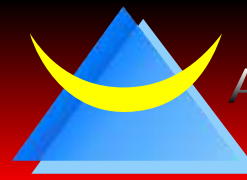


CSMC7 SERIES

- SMD Ceramic 2.5mm x 2.0mm (4Pad)
- Ultra Miniature Package
- Tight Tolerance and Stability
- RoHS Compliant



ASCEND

FREQUENCY DEVICES

Electrical Specifications

Frequency Range:	12.000MHz to 40.000MHz
Frequency Tolerance/Stability:	Select from options below
Operating Temperature Range:	Select from options below
Storage Temperature Range:	-55°C to +125°C
Aging:	±1.0ppm/year
Shunt Capacitance:	7pF Maximum
Load Capacitance:	Select from options below
Equivalent Series Resistance:	See ESR Table Below
Mode of Operation:	Fundamental
Drive Level:	10µWatts Typical, 100µW Maximum
Insulation Resistance:	500 Megaohms Minimum at DC 100V

Equivalent Series Resistance Table

Frequency Range	ESR (Ohms)	Mode / Cut	Frequency Range	ESR (Ohms)	Mode / Cut
12.000MHz to 13.000MHz	150 Maximum	Fundamental / AT	19.501MHz to 27.000MHz	60 Maximum	Fundamental / AT
13.001MHz to 19.500MHz	80 Maximum	Fundamental / AT	27.001MHz to 40.000MHz	50 Maximum	Fundamental / AT

Mechanical Dimensions

Solder Pad Layout

Pin Connection

1 Crystal	3 Crystal
2 Case Ground	4 Case Ground

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

ALL DIMENSIONS IN MILLIMETERS

Part Numbering Guide

CSMC7 A A 1 20 1 - 33.000M - TR

Series

Ceramic SMD Crystal (2.5mm x 2.0mm, 4 Pad)

Frequency Tolerance

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

Frequency Stability

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

Load Capacitance

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

