

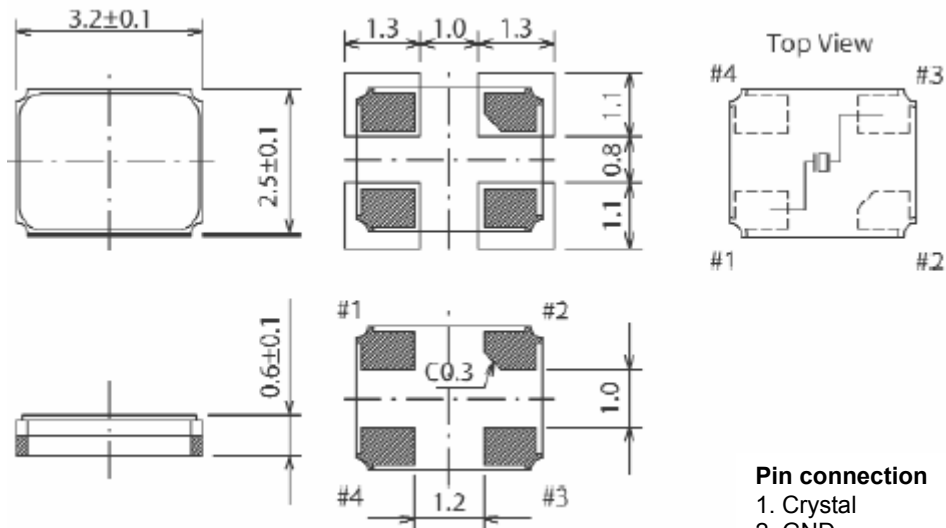
- CERAMIC SMD PACKAGE, VACUUM SEAM SEALED, RoHS COMPLIANT DESIGN
- APPLICATION: BLUETOOTH, MP3, PDA, USB, WIRELESS LA, CELLULAR



### Specification

Parameter	Characteristic
Frequency Range	16.000MHz ~ 50.000MHz
Oscillation Mode	Fundamental
Holder type	CX3225
Frequency Tolerance ( @ 25 °C)	(See Table 5)
Frequency Stability ( Ref. @ 25 °C)	(See Table 6)
Equivalent Series Resistance (C.I)	100 Ω max. (See Table 8)
Operating Temperature Range	-10 ~ +70 °C standard / -40 ~ +85 °C available
Storage Temperature Range	-40 ~ +90 °C
Shunt Capacitance(Co)	5pF max
Load Capacitance(CL)	18pF standard (See Table 3)
Drive Level	100 μW max
Aging(at 25 °C)	±5ppm / year max

### Drawing



- Pin connection**
1. Crystal
  2. GND
  3. Crystal
  4. GND

### Ordering Guide

Typical P/N : CX3225 - 16M - 20 - 1 10 15 Q - 100 - TR

1            2            3            4    5    6    7            8            9

**1. Package** CX3225 = 3.2x2.5x0.6mm

(3.2x2.5mm Ceramic SMD Crystal Unit)

**2. Frequency range** : 16 to 50MHz

**3. Load capacitance**

S : Series

10 : 10pF

18 : 18pF

20 : 20pF

30 : 30pF

**4. Oscillation Mode**

1 : Fundamental

3 : 3<sup>rd</sup> Overtone

**5. Tolerance Options (Room Temperature)**

50 : +/- 50ppm

30 : +/- 30ppm

15 : +/- 15ppm

10 : +/- 10ppm

**6. Stability Options (Temperature Range)**

50 : +/- 50ppm

30 : +/- 30ppm

15 : +/- 15ppm

10 : +/- 10ppm

**7. Operating temperature range**

P : 0~60℃

Q : -10~70℃

R : -30~75℃

S : -40~85℃

\* : The others

**8. Equivalent Series Resistance (C.I)**

16MHz ≤ F < 19MHz : 100 ohms max

19MHz ≤ F < 30MHz : 80 ohms max

30MHz ≤ F ≤ 50MHz : 60 ohms max

**9. Packing**

TR : Tape and Reel

B : Bulk