Crystal Units

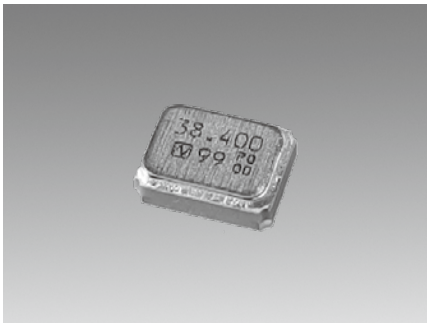
NDK Crystal Bridge to the Future

NX1612SD For Mobile Communications

■ Features

Crystal Unit with built-in Thermistor construction.

- Minimize circuit design space by combining crystal unit into one component. (Presently, Crystal unit and temperature sensor is mounted in one board separately.)
- Placing temperature sensor(Thermistor) close to Crystal blank in one airtight housing can detect more precise crystal blank temperature. Improvement on frequency temperature compensation compared to present Crystal unit.
- Single cavity housing which is ideal to module applications.
- External configuration size is 1.6x1.2mm typ., H0.65 mm Max.
- A surface-mount crystal oscillator. (Reflow soldering is possible.)
- Lead-free. Meets the requirements for re-flow profiling using lead-free solder.



Pb Free

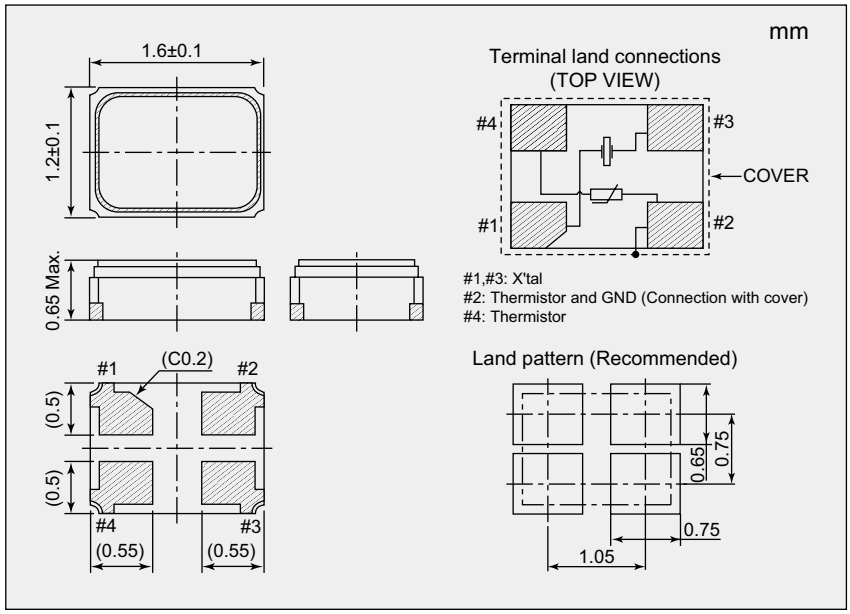
RoHS Compliant
Directive 2011/65/EU
Directive (EU) 2015/863

■ Specifications

Item \ Model	NX1612SD	
Standard	Standard	Optional
Nominal Frequency (MHz)	26 ≤ F ≤ 76.8	26 ≤ F ≤ 76.8
Overtone Order	Fundamental	Fundamental
Frequency Tolerance (25 ± 3°C)	±10 × 10^{-6}	±10 × 10^{-6}
Frequency versus Temperature Characteristics (with reference to +29 °C)	±12 × 10^{-6}	Please contact us about temp extended case, *1
Operating Temperature Range (°C)	−30 to +85	Please contact us about temp extended case, *1
Storage Temperature Range (°C)	−40 to +105	−40 to +105
Equivalent Series Resistance	Refer to *2	Refer to *2
Level of Drive (μW)	10 (Max. 100)	10 (Max. 100)
Load Capacitance (pF)	8	6 to 18
Frequency Aging (+25°C)	---	Max. ±3 × 10^{-6} / year *1
Specifications Number	STD-CTI-2	Refer to *3

Please specify the model name,frequency,and specification number when you order products.
For futher questions regarding specifications, please feel free to contact us.
*1 If you have any other requests, NDK will study it.
*3 Ordering information: Overtone Order Fundamental / 3rd Overtone, the Operating Temperature Range, Frequency versus Temperature Characteristics, Frequency Tolerance, and Load Capacitance.
Ex. Model, Frequency (38.400000MHz 6digits), S1:Fundamental or S3:3rd Overtone
- Operating Temperature Range (-30 to +85°C) - Frequency versus Temperature Characteristics (±12×10^{-6})
- Frequency Tolerance (±12×10^{-6}) - Load Capacitance (7pF)
NX1612SD
38.400000MHz
S1-3085-12-12-7

■ Dimensions



*2 Equivalent Series Resistance

Nominal Frequency (MHz)	Equivalent Series Resistance Max. (Ω)
26 ≤ F < 38.4	80
38.4 ≤ F ≤ 76.8	50

NTC Thermistor for Temperature Sensor

Resistance (R25)	100k Ω ± 1 %
B-Constant (B25-50)	4250K ± 1 %