

# **NX2016SF**

## 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 2.0x1.6mm 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.







## ■ Specifications

Item Model	NX2016SF	
Standard	Standard	Optional
Nominal Frequency (MHz)	19.2 ≤ F ≤ 52	19.2 ≤ F ≤ 52
Overtone Order	Fundamental	Fundamental
Frequency Tolerance (25 ± 3°C )	±10 × 10 <sup>-6</sup>	±10 × 10 <sup>-6</sup>
Frequency versus Temperature Characteristics (with reference to +32 °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)	7	6 to 18
Frequency Aging (+25°C)		Max. ±3 × 10 <sup>-6</sup> / year *1
Specifications Number	STD-CTZ-1	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

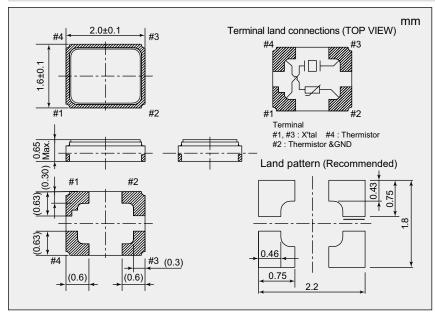
- Operating Temperature Range (-30 to +85°C) Frequency versus Temperature Characteristics (±12×10-6)
- Frequency Tolerance (±12×10-6) Load Capacitance (7pF)

NX2016SF

38.400000MHz

S1-3085-12-12-7

### **■** Dimensions



## \*2 Equivalent Series Resistance

Nominal Frequency (MHz)	Equivalent Series Resistance Max. (Ω)
19.2 ≤ F < 24	80
24 ≤ F ≤ 52	60

#### NTC Thermistor for Temperature Sensor

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