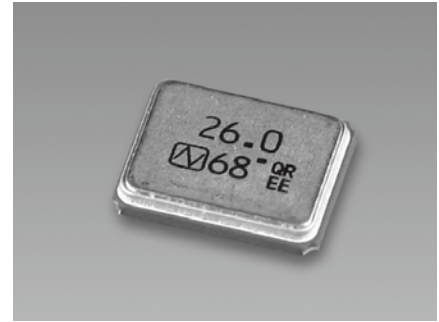


## NX3225SA For OA / AV / Short-range Wireless

### ■ Features

A small surface-mount type crystal unit, especially suited for small-sizing requirements.

- Compact and thin. (3.2 × 2.5 × 0.55 mm typ.)
- Excellent environmental characteristics, including heat and shock resistance.
- Excellent electrical performance, ideal for OA (office automation), AV (audiovisual), Bluetooth and Wireless LAN applications.
- Lead-free. Meets the requirements for re-flow profiling using lead-free solder.



Pb Free

RoHS Compliant  
Directive 2011/65/EU

### ■ Specifications

Item	Model	NX3225SA	
Nominal frequency		12 to 60 MHz	40 to 150 MHz
Overtone order		Fundamental	3rd overtone
Frequency tolerance (25 ±3 °C)		±15 × 10 <sup>-6</sup>	±20 × 10 <sup>-6</sup>
Frequency versus temperature characteristics (with reference to +25 °C)		±15 × 10 <sup>-6</sup>	
Operating temperature range		-10 to +75 °C	
Storage temperature range		-40 to +85 °C	
Equivalent series resistance		Refer to *1	
Level of drive		10 μW (Max. 200 μW)	
Load capacitance		8 pF	Series resonance

The above specifications are standard for this NDK product.

Custom-made specifications such as load capacitance and temperature characteristics are also available.

Please contact NDK sales with your enquiries.

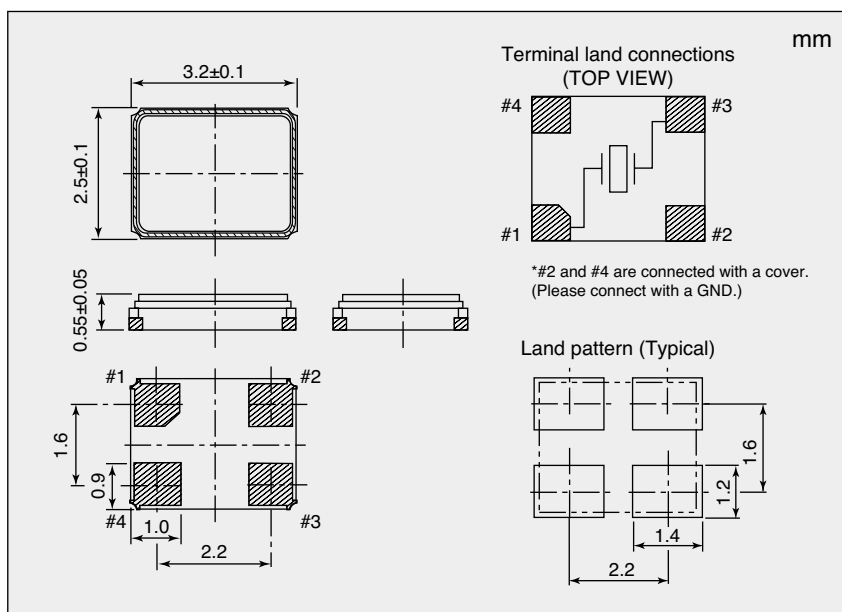
### ■ How to Specify an Order

When ordering our products, specify them with an "Ordering Code" that consists of the following :

[Model name] - [Frequency (Max : 9 digits)] M - [Number for specifying an order]      Example NX3225SA-12.000M-STD-CSR-3

If you have any queries concerning our standard frequencies and numbers for specifying orders, please contact our sales representatives or visit our homepage (<http://www.ndk.com/>).

### ■ Dimensions



#### \*1 Equivalent Series Resistance

Overtone Order	Nominal frequency (MHz)	Equivalent Series Resistance max. [Ω]
Fundamental	12 to 13	100
	13 to 20	80
3rd overtone	20 to 60	50
	40 to 100	140
	100 to 150	100