Crystal Units

NDK Crystal Bridge to the Future

NX3225GD | For Automotive

■ Features

A small surface-mount type crystal unit, ideal for an engine control CPU clock; delivering the high reliability that is particularly demanded by automotive. Compatible with low frequency range starting from 7.98 MHz.

- Compact and thin. (3.2 x 2.5 x 0.8mm)
- High resistance to solder cracking.
- Stable start-up characteristics even under extremely severe environmental conditions.
- Excellent environment-resistant performance, including heat, vibration and shock resistance.
- Meets the requirements for re-flow profiling using lead-free solder.
- Conforms to AEC-Q200.

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

■ Specifications

Item \ Model	NX3225GD	
Standard	Standard	Optional
Nominal Frequency (MHz)	$7.98 \leq F \leq 12$	$7.98 \leq F \leq 12$
Overtone Order	Fundamental	Fundamental
Frequency Tolerance (25 ±3 °C)	$\pm 50 \times 10^{-6}$	$\pm 50 \times 10^{-6}$
Frequency versus Temperature Characteristics (with reference to +25 °C)	$\pm 150 \times 10^{-6}$	$\pm 150 \times 10^{-6}$
Operating Temperature Range (°C)	−40 to +150	−40 to +150
Storage Temperature Range (°C)	−40 to +150	−40 to +150
Equivalent Series Resistance	Refer to *1	Refer to *1
Level of Drive (µW)	10 (Max. 200)	10 (Max. 200)
Load Capacitance (pF)	8	6 to 32
Frequency Aging (+25 °C)	---	Max. $\pm 10 \times 10^{-6}$ / year *2
Specifications Number	STD-CRA-3	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.
*2 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(10.000000MHz 6digits), S1:Fundamental or S3:3rd Overtone
   - Operating Temperature Range (-40 to +150°C) - Frequency versus Temperature Characteristics ($\pm 150 \times 10^{-6}$)
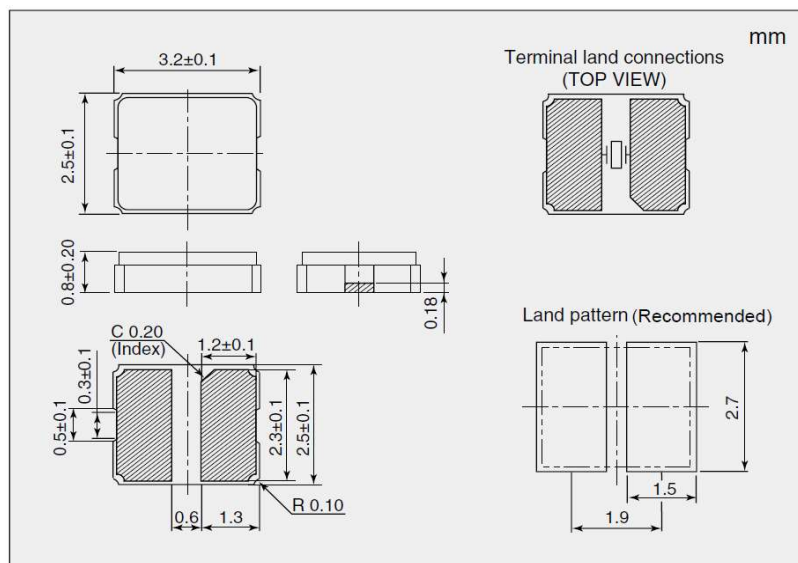   - Frequency Tolerance ($\pm 50 \times 10^{-6}$) - Load Capacitance (8pF)
  NX3225GD
  10.000000MHz
  S1-40150-150-50-8

■ Dimensions

mm

Terminal land connections (TOP VIEW)

Land pattern (Recommended)

*1 Equivalent Series Resistance

Nominal Frequency (MHz)	Equivalent Series Resistance Max. (Ω)
$7.98 \leq F < 9.8$	500
$9.8 \leq F \leq 12$	300

If you have any other requests,NDK will study it.

Table 1

f_{nom} (MHz)	NDK Spec Number	NDK Part Number	Prior NDK Part Number
8	STD-CRA-3	STDCRA3-8M	NX3225GD-8.000M-STD-CRA-3
10	STD-CRA-3	STDCRA3-10M	NX3225GD-10.000M-STD-CRA-3

f_{nom} (MHz)	NDK Spec Number	NDK Part Number	Prior NDK Part Number