

# Crystal Clock Oscillator

## NZ3225SD

## Low Phase Noise Type

### Application

- For High-quality-audio, Smartphone, Tablet computers, Wireless module, Notebook PC and DSC

### Features

- Low phase noise make this product ideal for High quality audio.
- Compact and light. Dimensions : 3.2 x 2.5 x 0.9 mm, weight : 0.02 g.
- Wide frequency range: 1.5 to 80 MHz.
- Automatic mounting by taping and IR reflow (lead-free) are possible.
- Lead-free.

Pb Free

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



Absolute maximum rating  
Supply Voltage (V<sub>CC</sub>) -0.6 to +6.0 V  
Storage Temperature Range -55 to +125 °C

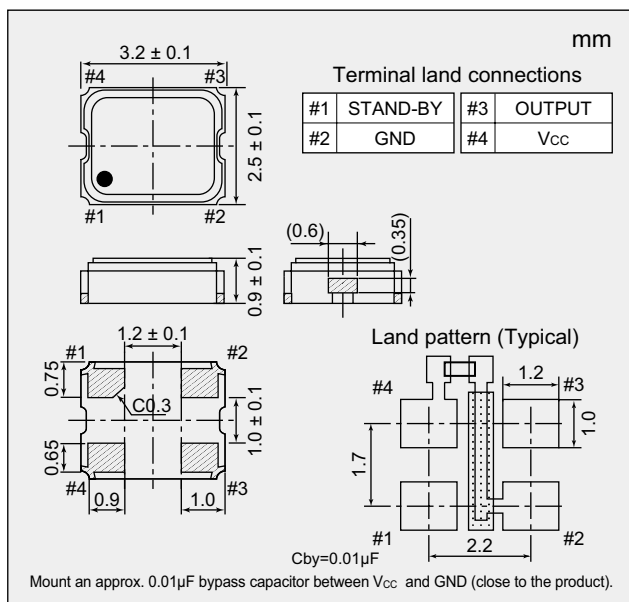
### Specifications

Item	Model	NZ3225SD		
Output Specification		CMOS		
Nominal Frequency Range	(MHz)	1.5 ≤ F ≤ 80		
Overall Frequency Tolerance	(×10 <sup>-5</sup> )	±50	±30	±20
Operating Temperature Range	(°C)	-40 to +85	-10 to +70	-10 to +60
Supply Voltage	(V)	+1.8 to +3.3		
Current Consumption Max.	During Operation	+25 °C	(mA)	
	During Standby	+25 °C	(μA)	
V <sub>OL</sub> Max. / V <sub>OH</sub> Min.	(V)	0.1 V <sub>CC</sub> / 0.9 V <sub>CC</sub>		
Tr Max. / Tf Max.	(ns)	6 / 6		
Symmetry Min. to Max.	(%)	45 to 55		
Load (C <sub>L</sub> ) Max.	(pF)	15		
Start-up Time Max.	(ms)	4		
Standby function		Available (Three-state)		

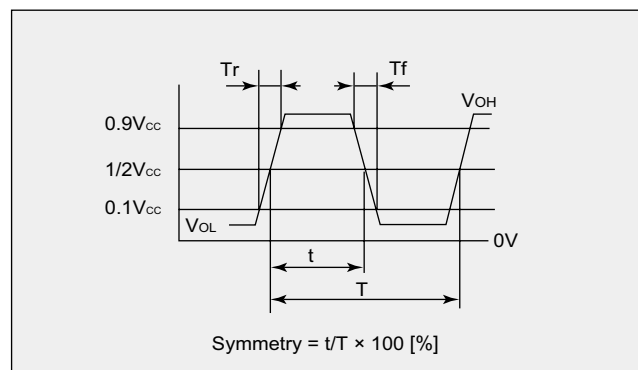
### Characteristics

+1.8V, +25 °C	Fout±1 kHz (Typ.)	Fout±100 kHz (Typ.)	(dBc/Hz)	F=20MHz	F=40MHz	F=60MHz	F=80MHz
				-147	-143	-139	-136
+2.5 to +3.3V, +25 °C	Fout±1 kHz (Typ.)	Fout±100 kHz (Typ.)	(dBc/Hz)	-151	-148	-142	-136
				-157	-156	-156	-154

### Dimensions



### Output Waveform <CMOS>



### Standby Function

#1 Input	#3 Output
Level H (0.7 V <sub>CC</sub> ≤ V <sub>IH</sub> ≤ V <sub>CC</sub> ) or OPEN is selected.	Oscillation output ON
Level L (V <sub>IL</sub> ≤ 0.3 V <sub>CC</sub> ) is selected.	High impedance

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#### ■ Specification Number

Overall Frequency Tolerance	Operating Temperature Range(°C)	Supply Voltage (V)			
		+1.8±0.18	+2.5±0.25	+2.8±0.28	+3.3±0.33
±50 × 10 <sup>-6</sup>	-40 to +85	NSC5032A	NSC5032B	NSC5032C	NSC5032D
±30 × 10 <sup>-6</sup>	-10 to +70	NSC5034A	NSC5034B	NSC5034C	NSC5034D
±20 × 10 <sup>-6</sup>	-10 to +60	NSC5035A	NSC5035B	NSC5035C	NSC5035D

Please specify the model name, frequency, and specification number when you order products.  
For further questions regarding specifications, please feel free to contact us.

# End of Life

# Mar-2021