

Crystal Clock Oscillator

NZ3225SH

Standard Type

■ Application

For Automotive navigation system, Automotive audio equipment and Camera
For Smartphone, Tablet computers, Notebook PC, PC card, etc.
For Audioequipment and Wireless module
For Communication equipment for SDH/SONET, WiMAX, LTE, etc. and Base station

■ Features

- Supports a wide temperature range from -40 to $+125^{\circ}\text{C}$.
- Compact and light. Dimensions : $3.2 \times 2.5 \times 0.9$ mm, weight : 0.02 g.
- This crystal clock oscillator can support low frequencies (from 1.5MHz) not easily achieved with crystal units of the same size.
- Low phase jitter (Typ. 100fs (Frequency Offset : 12kHz to 20MHz)@80MHz, 3.3V)
- Taped units enable automatic mounting IR Reflow (lead free) is possible.
- Lead-free.



Pb
Free

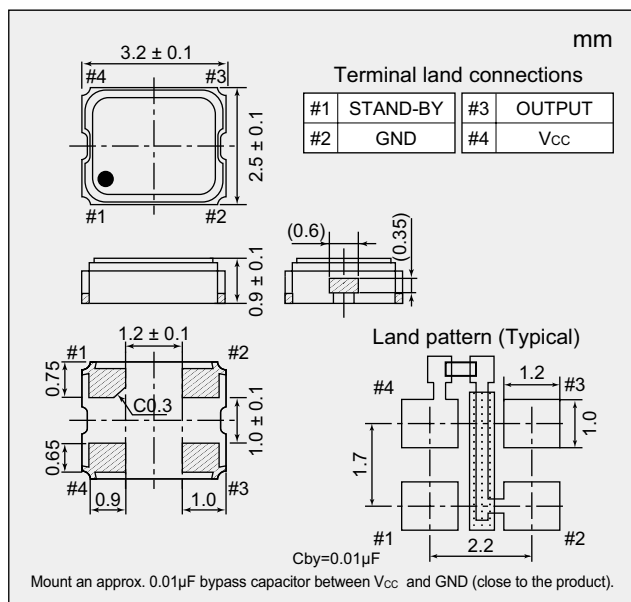
RoHS Compliant
Directive 2011/65/EU
Directive (EU) 2015/863

Absolute maximum rating
Supply Voltage (V_{CC}) -0.3 to $+4.0$ V
Storage Temperature Range -55 to $+125^{\circ}\text{C}$

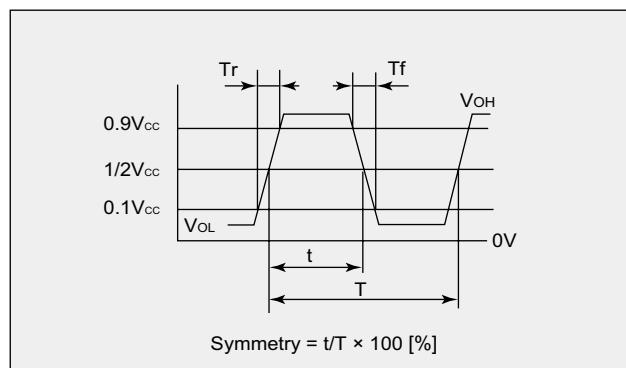
■ Specifications

Item			Model	NZ3225SH					
Output Specification				CMOS					
Nominal Frequency Range			(MHz)	$1.5 \leq F \leq 80$					
Overall Frequency Tolerance			($\times 10^{-6}$)	± 100	± 50	± 50	± 30	± 20	
Operating Temperature Range			($^{\circ}\text{C}$)	-40 to $+125$	-40 to $+105$	-40 to $+85$	-10 to $+70$	-10 to $+60$	
Supply Voltage			(V)	$+1.8$ to $+3.3$					
Current Consumption Max.	During Operation	$+25^{\circ}\text{C}$	(mA)	2.5 to 9.0					
	During Standby	$+25^{\circ}\text{C}$	(μA)	20					
V_{OL} Max. / V_{OH} Min.			(V)	$0.1 V_{CC}$ / $0.9 V_{CC}$					
Tr Max. / Tf Max.		$+1.8$ V	(ns)	$6 / 6$ (at $0.1 V_{CC}$ to $0.9 V_{CC}$)					
		$+2.5$ to $+3.3$ V		$5 / 5$ (at $0.1 V_{CC}$ to $0.9 V_{CC}$)					
Symmetry Min. to Max.			(%)	45 to 55					
Load (C_L) Max.			(pF)	15					
Start-up Time Max.			(ms)	4					
Standby function				Available (Three-state)					

■ Dimensions



■ Output Waveform <CMOS>



■ Standby Function

#1 Input	#3 Output
Level H ($0.7 V_{CC} \leq V_{IH} \leq V_{CC}$) or OPEN is selected.	Oscillation output ON
Level L ($V_{IL} \leq 0.3 V_{CC}$) 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	+3.0±0.3	+3.3±0.33
± 100 × 10 ⁻⁶	-40 to +125	NSC5040A	NSC5040B	NSC5040C	NSC5040D
± 50 × 10 ⁻⁶	-40 to +105	NSC5042A	NSC5042B	NSC5042C	NSC5042D
± 50 × 10 ⁻⁶	-40 to +85	NSC5043A	NSC5043B	NSC5043C	NSC5043D
± 30 × 10 ⁻⁶	-10 to +70	NSC5045A	NSC5045B	NSC5045C	NSC5045D
± 20 × 10 ⁻⁶	-10 to +60	NSC5046A	NSC5046B	NSC5046C	NSC5046D

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