

Crystal Clock Oscillator

NZ2520SHA

Automotive safety

Application

For Automotive safety (e.g., Millimeter wave radar or Image processing for self-driving)

Features

- High quality and high reliability design for Automotive safety
- Conforms to AEC-Q100/200.
- Supports a wide frequency range. (1.5 to 125MHz)
- Supports a wide temperature range from -40 to +125°C.
- Compact and light. Dimensions : 2.5 x 2.0 x 0.9 mm, weight : 0.02 g.
- Taped units enable automatic mounting IR Reflow (lead free) is possible.
- Lead-free.
- Output Specification : CMOS



Pb Free

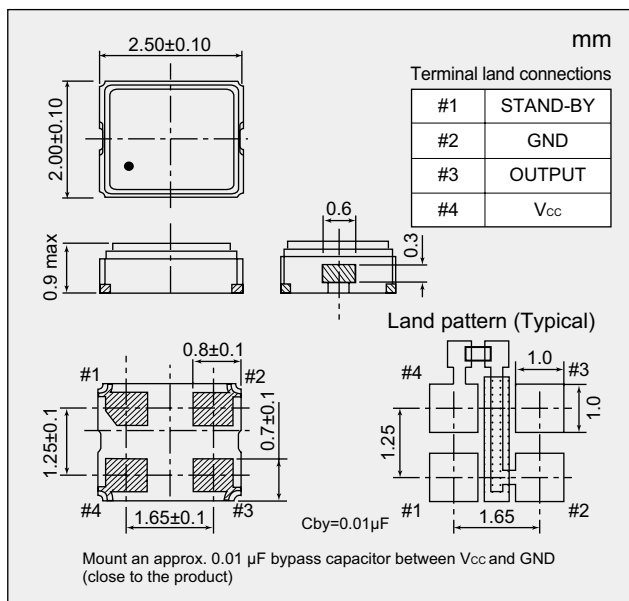
RoHS Compliant
Directive 2011/65/EU

Absolute maximum rating
Supply Voltage (V_{CC}) -0.3 to +4.0 V
Storage Temperature Range -55 to +125 °C

Specifications

Item	Model	NZ2520SHA	
Output Specification		CMOS	
Nominal Frequency Range	(MHz)	1.5 ≤ F ≤ 80	80 < F ≤ 125
Overall Frequency Tolerance	(×10 ⁻⁶)	±100	
Operating Temperature Range	(°C)	-40 to +125	
Supply Voltage	(V)	+1.8 to +3.3	
Current Consumption Max.	During Operation	+25 °C (mA)	2.5 to 9.0
	During Standby	+25 °C (μA)	9.5 to 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 +3.3V		3 / 3 (at 0.2 V _{CC} to 0.8 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)

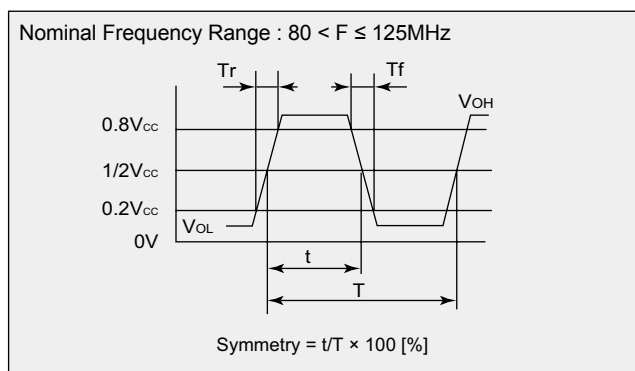
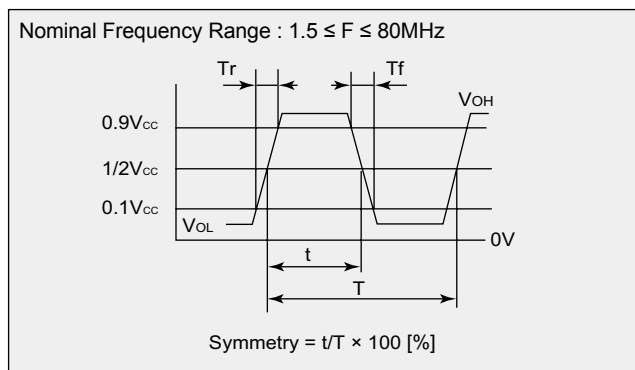
Dimensions



Standby Function

#1 Input	#3 Output
Level H (0.7 V _{CC} ≤ V _{IH} ≤ V _{CC}) or OPEN is selected.	Oscillation output ON
Level L (V _{IL} ≤ 0.3 V _{CC}) is selected.	High impedance

Output Waveform <CMOS>



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■ Specification Number

Nominal Frequency Range : $1.5 \leq F \leq 80\text{MHz}$

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	NSC5072A	NSC5072B	NSC5072C	NSC5072D

Nominal Frequency Range : $80 < F \leq 125\text{MHz}$

Overall Frequency Tolerance	Operating Temperature Range (°C)	Supply Voltage (V)			
		+1.8±0.10	+2.5±0.25	+3.0±0.3	+3.3±0.33
±100×10 ⁻⁶	-40 to +125	NSC5166A	NSC5166B	NSC5166C	NSC5166D

Please specify the model name, frequency, and specification number when you order products.

For further questions regarding specifications, please feel free to contact us.