

# Crystal Clock Oscillator **NEW**

## 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 temperature range from  $-40$  to  $+125^{\circ}\text{C}$ .
- Compact and light. Dimensions :  $2.5 \times 2.0 \times 0.9$  mm, weight : 0.02 g.
- Taped units enable automatic mounting IR Reflow (lead free) is possible.
- Lead-free.
- Output Level : CMOS



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

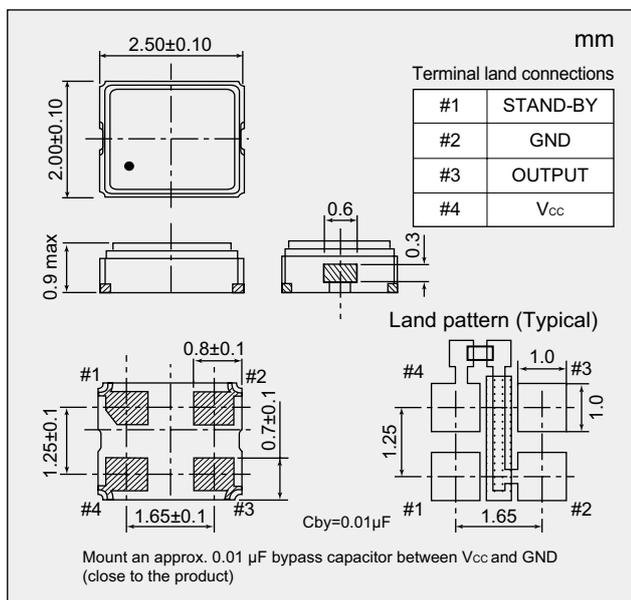
Pb Free

RoHS Compliant  
 Directive 2011/65/EU

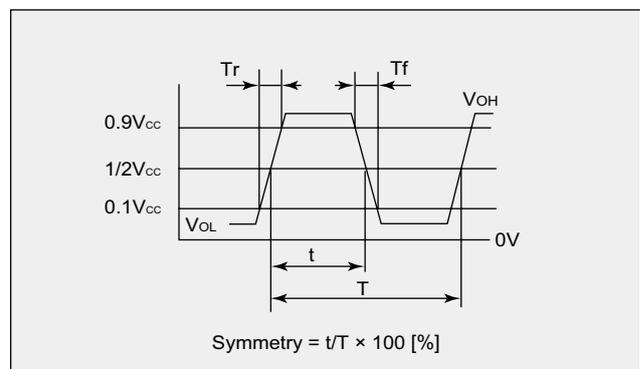
### Specifications

Item			Model	NZ2520SHA
Output				CMOS
Nominal Frequency Range			(MHz)	1.5 to 80
Overall Frequency Tolerance			( $\times 10^{-6}$ )	$\pm 100$
Operating Temperature Range			( $^{\circ}\text{C}$ )	$-40$ to $+125$
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	$+25^{\circ}\text{C}$	( $\mu\text{A}$ )	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 <sup>-6</sup>	-40 to +125	NSC5072A	NSC5072B	NSC5072C	NSC5072D

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