

## NP5032SA

Simple Packaged Crystal Oscillator (SPXO)

### ■ Main Application

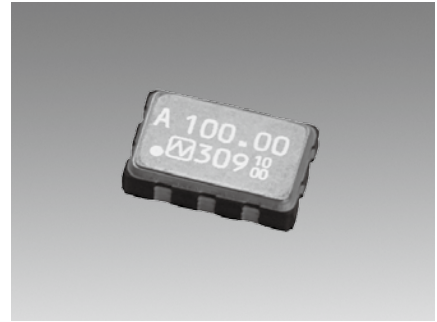
For SONET-, SDH-, and GbEthernet-related equipment

### ■ Features

- Differential Output SPXO
- Compact dimension : 5.0 × 3.2 × 1.2 mm.
- Supply voltage : +2.5V or +3.3V
- Output Specification : LVPECL
- Excellent low phase jitter. (Typ. 0.08ps @148.5MHz)

Pb Free

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

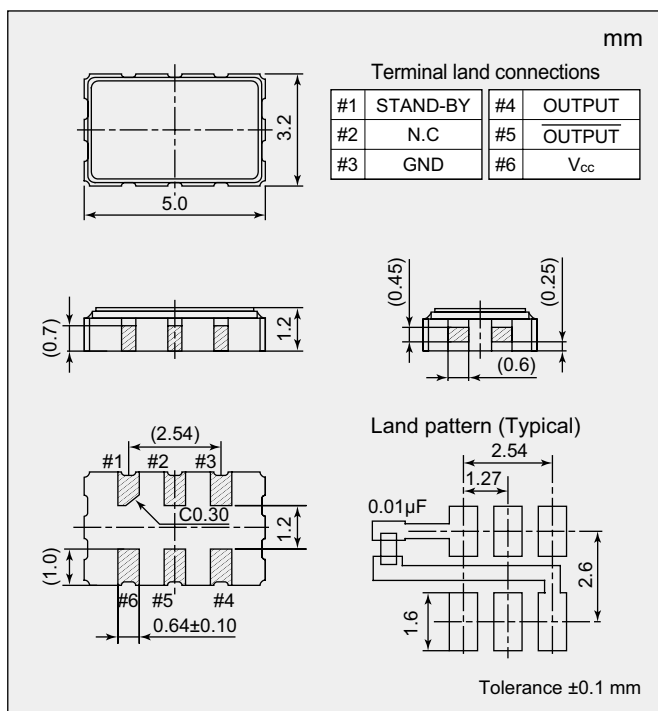


### ■ Specifications

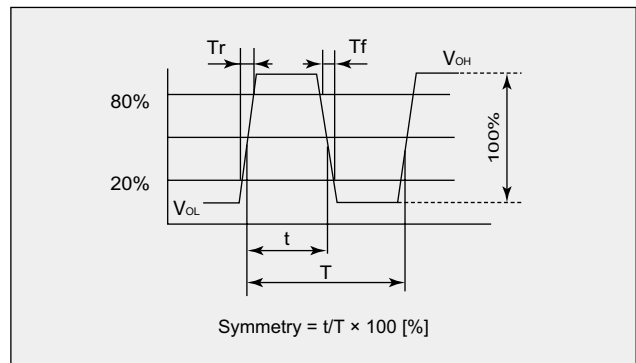
Item	Model	NP5032SA					
Output Specification		LVPECL					
Nominal Frequency Range (MHz)		100 to 170					
Overall Frequency Tolerance *1		Max. $\pm 25 \times 10^{-6}$		Max. $\pm 50 \times 10^{-6}$		Max. $\pm 100 \times 10^{-6}$	
Operating Temperature Range (°C)		0 to +70		0 to +85		-40 to +85	
Storage Temperature Range (°C)		-55 to +125					
Supply Voltage [V <sub>CC</sub> ] (V)		+2.5 ± 5 %	+3.3 ± 10 %	+2.5 ± 5 %	+3.3 ± 10 %	+2.5 ± 5 %	+3.3 ± 10 %
Current Consumption	Enable (mA)	Max. 60 (STAND-BY=V <sub>CC</sub> or OPEN, R <sub>L</sub> =50Ω)					
	Stand-by (μA)	Max. 30 (STAND-BY=GND)					
Output Voltage (V)		V <sub>OL</sub> : V <sub>CC</sub> -1.81 to V <sub>CC</sub> -1.62 (DC characteristics)					
		V <sub>OH</sub> : V <sub>CC</sub> -1.025 to V <sub>CC</sub> -0.88 (DC characteristics)					
Rise Time / Fall Time (ns)		Max. 1 (20 to 80% Waveform)					
Symmetry (%)		45 to 55 (at 50% Waveform)					
Output Load (Ω)		50 (Terminated to V <sub>CC</sub> -2.0V)					
Phase Jitter (ps)		Max. 1 (Offset frequency : 12kHz to 20MHz)					
Specification Number		NSC5105A	NSC5106A	NSC5105B	NSC5106B	NSC5105C	NSC5106C

\*1 : The frequency stability includes initial frequency tolerance, temperature variation, and supply variation.

### ■ Dimensions



### ■ Output waveform



### ■ Standby Function Table (Three-state)

#1 Input	#4 and #5 output
Level H (V <sub>IH</sub> ≥ 0.7 V <sub>CC</sub> ) or OPEN	Oscillation output ON
Level L (V <sub>IL</sub> ≤ 0.3 V <sub>CC</sub> )	High impedance

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