

# Crystal Clock Oscillator

## NZ2016SJ

## Low current consumption Type

### Application

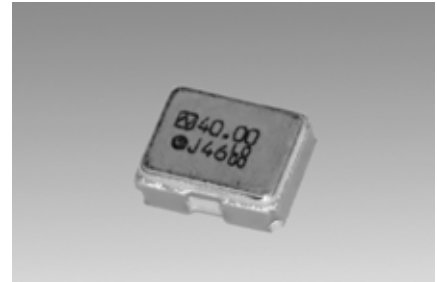
- For Smartphones, Tablet computers, notebook PC, DSC, etc.

### Features

- External configuration size is 2.0 x 1.6 x 0.7mm (weight of 0.01g), and is micro light weight.
- Low current consumption (Max. 0.7mA, @40MHz, +1.8V, No-load).
- Lead-free.

Pb Free

RoHS Compliant  
Directive 2011/65/EU



Absolute maximum rating  
Supply Voltage (V<sub>CC</sub>) -0.3 to +4.0 V  
Storage Temperature Range -55 to +125 °C

### Specifications

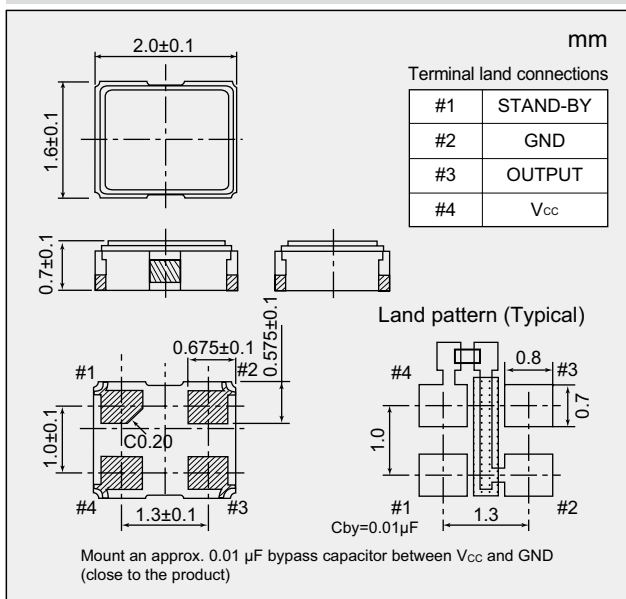
Item		Model	NZ2016SJ
Output Level			CMOS
Nominal Frequency Range		(MHz)	6 to 40
Overall Frequency Tolerance*1		(×10 <sup>-6</sup> )	± 30
Operating Temperature Range		(°C)	-40 to +85
Supply Voltage [V <sub>CC</sub> ]		(V)	+1.8 ± 0.18
Current Consumption Max.	During Operation*2	+25 °C, No-load	0.60 to 0.70
		+25 °C, 15pF	0.92 to 1.78
	During Standby	+25 °C, No-load/15pF	10
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)	8/8 (at 0.1V <sub>CC</sub> to 0.9V <sub>CC</sub> )
Symmetry Min. to Max.		(%)	45 to 55 (at 0.5V <sub>CC</sub> )
Load (C <sub>L</sub> ) Max.		(pF)	15
Start-up Time Max.		(ms)	4
Standby function			Available (Three-state)
Specification Number			NSA3609A

\*1 : Frequency Tolerance (+25°C), Frequency/Temperature characteristics, Frequency/Voltage characteristics.

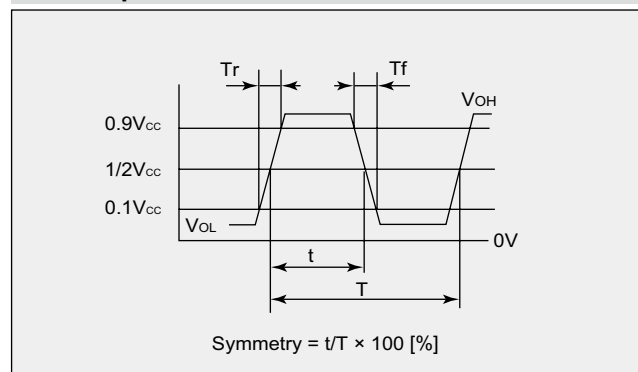
\*2 : Consumption current at the time of loading capacity(C<sub>L</sub>OUT) on an output I<sub>CC</sub> (C<sub>L</sub>OUT) is consumption current(I<sub>CC</sub>) at the time of no-load, and output frequency. (F<sub>OUT</sub>) It can ask by the following formula.

$$I_{CC}(C_{LOUT})[mA] = I_{CC}[mA] + C_{LOUT}[pF] \times V_{CC}[V] \times F_{OUT}[MHz] \cdot 10^{-3}$$

### 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

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