

Crystal Clock Oscillator

NZ2016SD

Low Phase Noise Type

Application

- For High-quality-audio, Smartphone, Tablet computers, Wireless module, Notebook PC and DSC

Features

- Low phase noise make this product ideal for High quality audio.
- Phase noise $F_{out} \pm 1\text{kHz}$: Typ. -146dBc/Hz @ $+3.3\text{V}$, $+25^\circ\text{C}$, $F_{out}=26\text{MHz}$
 $F_{out} \pm 100\text{kHz}$: Typ. -157dBc/Hz @ $+3.3\text{V}$, $+25^\circ\text{C}$, $F_{out}=26\text{MHz}$
- Ultra-compact and light. Dimensions : $2.0 \times 1.6 \times 0.7\text{ mm}$, weight : 0.01 g .
- Wide frequency range: 1.5 to 60 MHz.
- Automatic mounting by taping and IR reflow (lead-free) are possible.
- Lead-free.

Pb Free

RoHS Compliant
Directive 2011/65/EU



Absolute maximum rating
Supply Voltage (V_{CC}) -0.6 to $+6.0\text{ V}$
Storage Temperature Range -55 to $+125^\circ\text{C}$

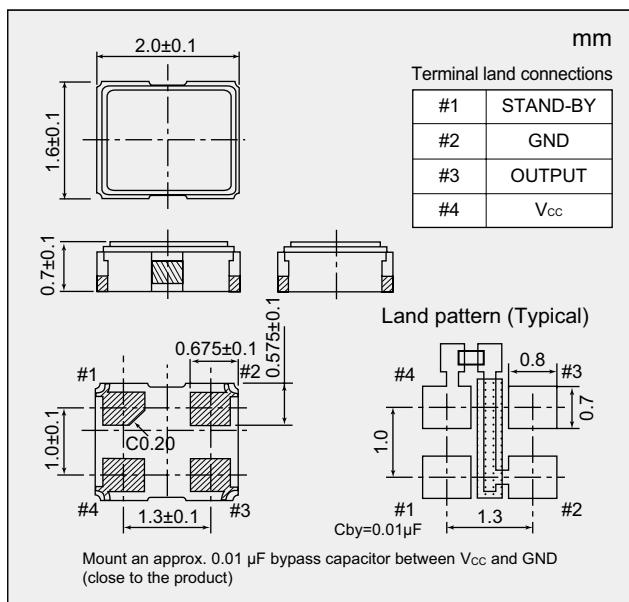
Specifications

Item		Model	NZ2016SD		
Output Specification			CMOS		
Nominal Frequency Range		(MHz)	$1.5 \leq F \leq 60$		
Overall Frequency Tolerance		($\times 10^{-6}$)	± 50	± 30	± 20
Operating Temperature Range		($^\circ\text{C}$)	-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)		
	During Standby	$+25^\circ\text{C}$	1.8 to 6.5		
			10		
V_{OL} Max. / V_{OH} Min.		(V)	$0.1 V_{CC}$ / $0.9 V_{CC}$		
T_r Max. / T_f Max.		(ns)	6 / 6		
Symmetry Min. to Max.		(%)	45 to 55		
Load (C_L) Max.		(pF)	15		
Start-up Time Max.		(ms)	4		
Standby function			Available (Three-state)		

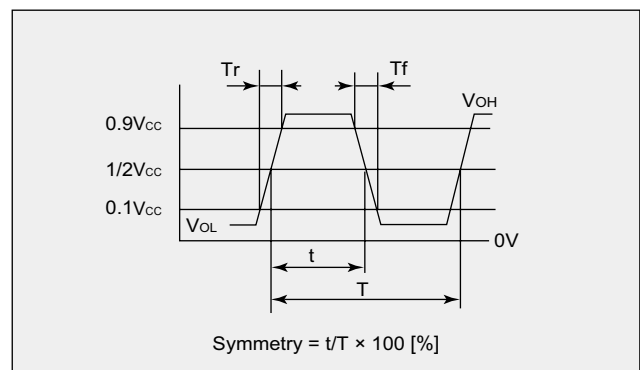
Characteristics

		F=26MHz		F=60MHz	
$+1.8\text{V}$, $+25^\circ\text{C}$	$F_{out} \pm 1\text{ kHz}$ (Typ.)	-143		-139	
	$F_{out} \pm 100\text{ kHz}$ (Typ.)	-154		-150	
$+2.5$ to $+3.3\text{V}$, $+25^\circ\text{C}$	$F_{out} \pm 1\text{ kHz}$ (Typ.)	-146		-143	
	$F_{out} \pm 100\text{ kHz}$ (Typ.)	-157		-156	

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
$\pm 50 \times 10^{-6}$	-40 to +85	NSA3580G	NSA3581G	NSA3582G	NSA3583G
$\pm 30 \times 10^{-6}$	-10 to +70	NSA3580C	NSA3581C	NSA3582C	NSA3583C
$\pm 20 \times 10^{-6}$	-10 to +60	NSA3580D	NSA3581D	NSA3582D	NSA3583D

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