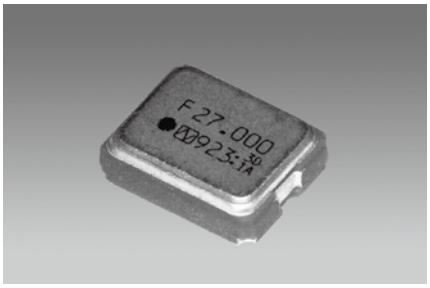
Crystal Clock Oscillator

NDK Crystal Bridge to the Future

NZ2520SF Ultralow Power-Driven Type

■ Application

- For Portable equipment (ex. Mobile Phone, Digital Media Player, PND, Notebook PC, etc)



Pb Free

RoHS Compliant Directive 2011/65/EU

Absolute maximum rating	
Supply Voltage (V_{CC})	–0.5 to +4.0 V
Storage Temperature Range	–55 to +125 °C

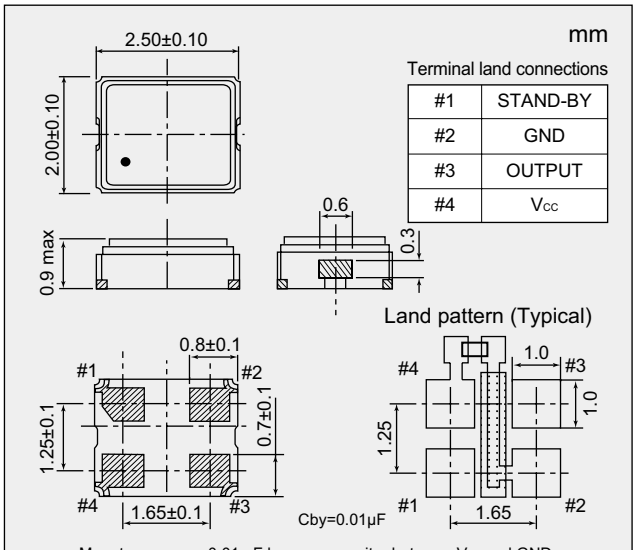
■ Features

- Ultralow power-driven (Min. +0.8V) crystal clock oscillator, ideal for mobile devices.
- Compact and light. Dimensions : 2.5 x 2.0 x 0.9 mm, weight : 0.02 g.
- Wide frequency range : 1.5 to 50MHz
- Taped units enable automatic mounting and IR Reflow (lead free) is possible.
- Lead-free.

■ Specifications

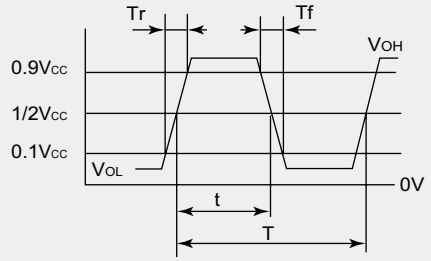
Item \ Model				NZ2520SF	
Output Level				CMOS	
Nominal Frequency Range			(MHz)	1.5 to 50	
Overall Frequency Tolerance			(×10⁻⁶)	±50	±30
Operating Temperature Range			(°C)	–40 to +85	–10 to +70
Supply Voltage			(V)	+0.9 to +1.5	
Current Consumption Max.	During Operation	+25 °C	(mA)	1.5 to 6.0	
	During Standby	+25 °C	(μA)	100	
V_{OL} Max. / V_{OH} Min.			(V)	0.1 V_{CC}/0.9 V_{CC}	
Tr Max. / Tf Max.			(ns)	5/5	
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



Mount an approx. 0.01 μF bypass capacitor between V_{CC} and GND (close to the product)

■ Output Waveform <CMOS>



Symmetry = t/T × 100 [%]

■ 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

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NZ2520SF Ultralow Power-Driven Type

■ Specification Number

Overall Frequency Tolerance	Operating Temperature Range(°C)	Supply Voltage (V)		
		+0.9±0.1	+1.2±0.1	+1.5±0.1
±50×10^{-6}	–40 to +85	NSA3468E	NSA3477E	NSA3469E
±30×10^{-6}	–10 to +70	NSA3468C	NSA3477C	NSA3469C

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