Crystal Clock Oscillator

NDK Crystal Bridge to the Future

2775 Series — Programmable Type

■ Model name

2775Y Frequency stability of ±100 x 10^{-6}.

■ Application

- For compact mobile information equipment, such as a notebook PC, mobile information terminal, and PC card

■ Features

- PLL technology allows this crystal oscillator to support 1 to 181 MHz.
- With the adoption of frequency-writing technology, even the tightest delivery deadline can be met.
- Automatic mounting by taping and IR reflow (lead-free) are possible.
- Compact and light. Dimensions and weight: 5.0 x 3.2 mm, 1.0 mm, and 0.06 g.

Pb Free

RoHS Compliant
Directive 2002/95/EC

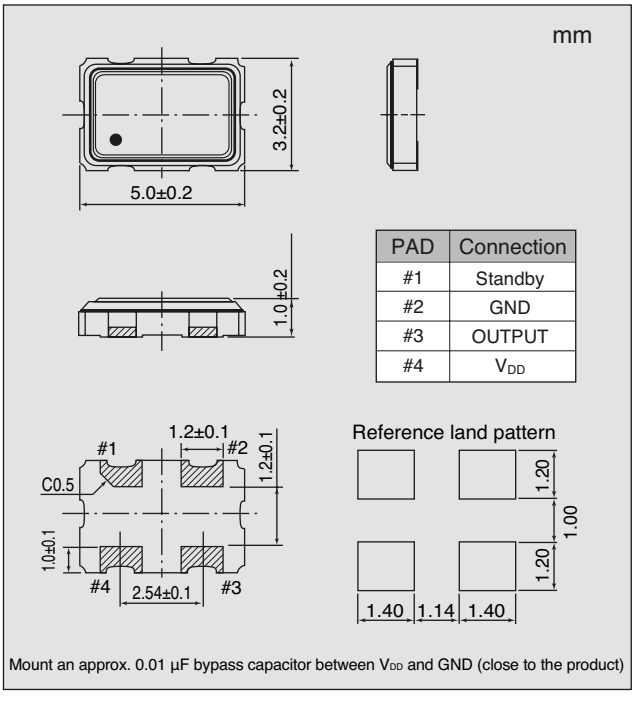
Absolute maximum rating
Power supply voltage (V_{DD}) -0.5 to +7.0 V
Storage temperature range -55 to +125 °C

■ Specifications

Item		Model	2775Y			
Output level			C-MOS			
Frequency range *1		(MHz)	1 ≤ F ≤ 40	40 < F ≤ 70	70 < F ≤ 125	125 < F ≤ 181
Operating temperature range *2		(°C)	–20 to +70			
Frequency stability		(×10^{-6})	±100			
Power supply voltage [V_{DD}]		(V)	+3.3±0.3			
Current consumption (+3.3 V, 25 °C) max	During operation	(mA)	15	22	30	
	During standby	(µA)	30			
V_{OL} max/V_{OH} min		(V)	0.1 V_{DD}/0.9 V_{DD}			0.2 V_{DD}/0.8 V_{DD}
Tr max/Tf max		(ns)	5/5 (0.1 V_{DD} to 0.9 V_{DD})		3/3 (0.2 V_{DD} to 0.8 V_{DD})	
Duty Cycle min. to max.		(%)	45 to 55 (at 1/2 V_{DD})		40 to 60 (at 1/2 V_{DD})	
Load (C_L) max		(pF)	15			10
Oscillation start time max		(ms)	10			
Standby function			Available (tristate)			
Number for specifying an order			NSA5312A			

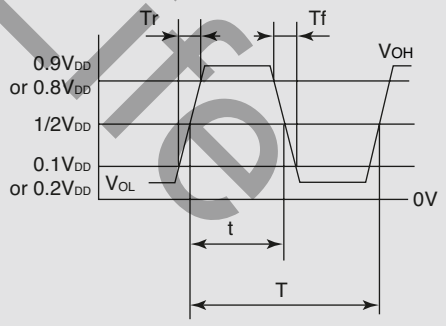
*1: If you require a product with a frequency not given above, please contact us. *2: If you require a product with an operating temperature range not given above, please contact us.

■ Dimensions



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

■ Output Waveform <C-MOS>



Duty Cycle = t/T × 100 [%]

■ Standby Function

#1 Input	#3 Output
Level H (0.7 V_{DD} ≤ V_{IH} ≤ V_{DD}) or OPEN is selected.	Oscillation output ON
Level L (+0.2 V_{DD} max.) is selected.	High impedance (weak pull-down)

■ How to Specify an Order

When ordering our products, specify them with an "Ordering Code" that consists of the following:

Model name – Frequency (up to 9 digits) M– Number for specifying an order

Example 1: When ordering a product with model name: 2775Y, frequency: 68 MHz, frequency stability: ±100 x 10^{-6}, and power supply voltage: 3.3 V
Ordering Code: 2775Y – 68.000000M – NSA5312A

If you have any queries concerning our standard frequencies and numbers for specifying orders, please contact our sales representatives or visit our homepage (http://www.ndk.com/).