Crystal Clock Oscillator

NDK — Crystal Bridge to the Future

2795 Series   Two Frequencies-switching Type

■ Model name

2795W Frequency stability of ±100 x 10^{-6}.

■ Application

- For compact mobile information equipment, such as PDA and notebook PC

■ Features

- With the adoption of frequency-writing technology, even the tightest delivery deadline can be met.
- Two frequencies: switch from one to the other according to the input voltage (high or low) of PAD #1.
- PLL technology allows this crystal oscillator to support 1 to 125 MHz.
- Automatic mounting by taping and IR reflow (lead-free) are possible.
- Compact and light with the following dimensions and weight of 5.0 x 3.2 mm, 1.0 mm, and 0.06 g.

Pb Free

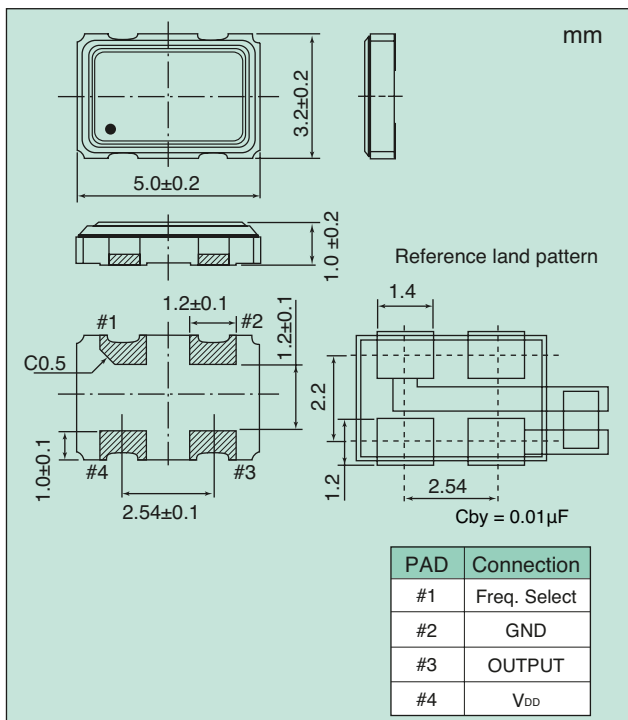**RoHS Compliant** Directive 2002/95/EC

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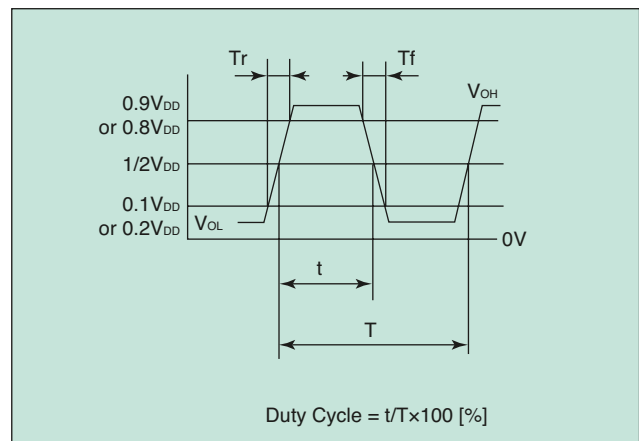Storage temperature range -55 to +125°C

■ Specifications

Item	Model		2795W		
Output level			C-MOS		
Frequency range *1	(MHz)		$1 \leq F \leq 40$	$40 < F \leq 70$	$70 < F \leq 125$
Operating temperature range *2	(°C)		−20 to +70		
Frequency stability	(×10^{-6})		±100		
Power supply voltage	(V)		+5.0±0.5		
Consumption current (+5.0V,25°C) max	(mA)		25	40	50
V_{OL} max/V_{OH} min	(V)		0.1V_{DD}/0.9V_{DD} I_{OL}=8mA I_{OH}=−8mA		
Tr max/Tf max	(ns)		5/5 (0.1V_{DD} to 0.9V_{DD})		3/3 (0.2V_{DD} to 0.8V_{DD})
Duty Cycle min. to max.	(%)		45 to 55 (at 1/2V_{DD})		40 to 60 (at 1/2V_{DD})
Load (C_L) max	(pF)		15		
Oscillation start time max	(ms)		10		
Number for specifying an order			NSA5333A		

*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.
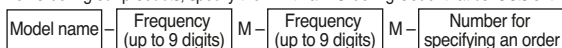
■ Dimensions

mm

3.2±0.2

5.0±0.2

1.0 ±0.2

1.2±0.1

#1   #2

1.2±0.1

C0.5

1.0±0.1

#4   #3

2.54±0.1

Reference land pattern

1.4

2.2

1.2

2.54

Cby = 0.01μF

PAD	Connection
#1	Freq. Select
#2	GND
#3	OUTPUT
#4	V_{DD}

■ Output Waveform <C-MOS>

Tr   Tf

0.9V_{DD} or 0.8V_{DD} V_{OH}

1/2V_{DD}

0.1V_{DD} or 0.2V_{DD} V_{OL} 0V

t

T

Duty Cycle = t/T×100 [%]

■ Two Frequencies-switching Function Table

#1 Input	#3 Input
Level H (0.7 V_{DD} ≤ V_{IH} ≤ V_{DD}) or OPEN is selected.	F1
Level L (+0.8 V max.) is selected.	F2

■ 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 – | Frequency (up to 9 digits) | M – | Number for specifying an order |

Example 1: When ordering a product with model name: 2795W, frequency: 16.9 and 22.5 MHz, frequency stability: ±100 x 10^{-6}, and power supply voltage: 5.0 V
Ordering Code: 2795W – 16.900000M – 22.500000M – NSA5333A

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/).