Crystal Clock Oscillator

2785 Series

Programmable Type

■ Model name

2785V 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 125 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.
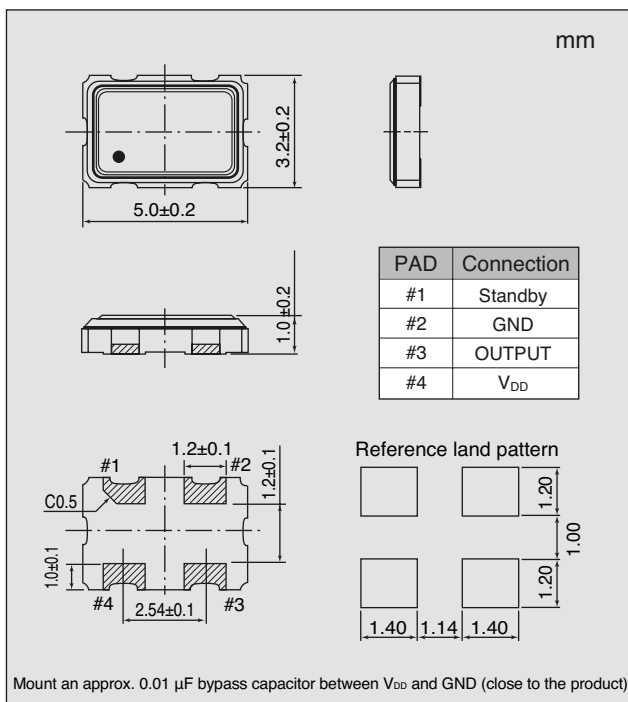
Pb Free

RoHS Compliant
Directive 2002/95/EC

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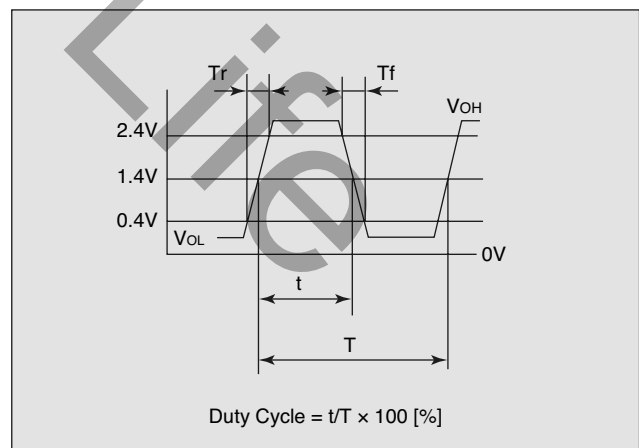Storage temperature range -55 to +125 °C

■ Specifications

Item	Model	2785V		
Output level		TTL		
Frequency range *1	(MHz)	1 ≤ F ≤ 40	40 < F ≤ 70	70 < F ≤ 125
Operating temperature range *2	(°C)	−20 to +70		
Frequency stability	(×10^{-6})	±100		
Power supply voltage [V_{DD}]	(V)	+5.0±0.5		
Current consumption (+5.0 V, 25 °C) max / During operation	(mA)	25	40	50
During standby	(μA)	50		
V_{OL} max/V_{OH} min	(V)	0.4 V/2.4 V		
Tr max/Tf max	(ns)	2.5/2.5 (0.4 V to 2.4 V)		
Duty Cycle min. to max.	(%)	40 to 60 (at 1.4 V)		
Load (C_L) max	TTL GATE	5		
Oscillation start time max	(ms)	10		
Standby function		Available (tristate)		
Number for specifying an order		NSA5314A		

*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

PAD	Connection
#1	Standby
#2	GND
#3	OUTPUT
#4	V_{DD}

1.2±0.1
1.2±0.1
#1   #2
C0.5
1.0±0.1
#4   #3
2.54±0.1

Reference land pattern
1.20
1.00
1.20
1.40 1.14 1.40

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

■ Output Waveform <TTL>

Tr   Tf
V_{OH}
2.4V
1.4V
0.4V
V_{OL}
0V
t
T

Duty Cycle = t/T × 100 [%]

■ Standby Function

#1 Input	#3 Input
Level H (+2 V min.) or OPEN is selected.	Oscillation output ON
Level L (+0.8 V 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 |

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/).

Example 1: When ordering a product with model name: 2785V, frequency: 80 MHz, frequency stability: ±100 x 10^{-6}, and power supply voltage: 5.0 V
Ordering Code: 2785V – 80.000000M – NSA5314A