Crystal Clock Oscillator

NDK
Crystal **Bridge to the Future**

2725 Series

High-precision Type

■ Model name

2725T Frequency stability of $\pm 30 \times 10^{-6}$.

■ Application

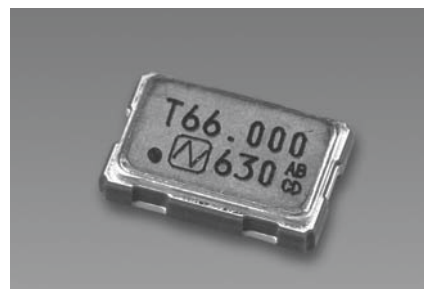● For notebook PC, mobile information terminal, PC card, and video equipment

■ Features

● High-precision type (Frequency stability of $\pm 30 \times 10^{-6}$.)
● Supports a frequency range of 2.5 to 75 MHz.
● Automatic mounting by taping and IR reflow (lead-free) are possible.
● Lead-free.
● 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
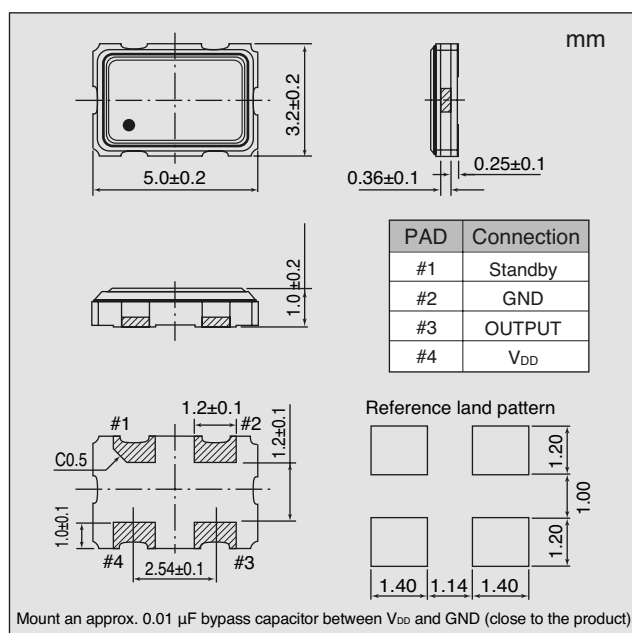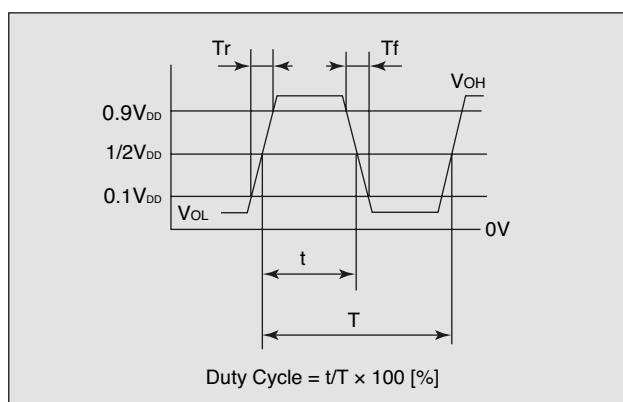Storage temperature range -55 to +125 °C

■ Specifications

Item		Model	2725T			
Output level			C-MOS			
Frequency range *1		(MHz)	$2.5 \leq F < 20$	$20 \leq F < 40$	$40 \leq F < 60$	$60 \leq F < 75$
Operating temperature range *2		(°C)	−10 to +70			
Frequency stability		($\times 10^{-6}$)	±30			
Power supply voltage [V_{DD}]		(V)	+3.3±0.1			
Current consumption	During operation	(mA)	8	15	22	25
(+3.3 V, 25 °C) max	During standby	(µA)	10			
V_{OL} max/V_{OH} min		(V)	0.1 V_{DD} /0.9 V_{DD}			
Tr max/Tf max		(ns)	5/5 (0.1 V_{DD} to 0.9 V_{DD})			
Duty Cycle min. to max.		(%)	45 to 55 (at 1/2 V_{DD})			
Load (C_L) max		(pF)	15			
Oscillation start time max		(ms)	4		10	
Standby function			Available (tristate)			
Number for specifying an order			NSA6293C			

*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
0.36±0.1   0.25±0.1
1.0±0.2

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

1.2±0.1
#1   #2
C0.5
1.2±0.1
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 <C-MOS>

Tr   Tf V_{OH}
0.9V_{DD}
1/2V_{DD}
0.1V_{DD}
V_{OL} 0V
t
T

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 (V_{IL} ≤ 0.3 V_{DD}) is selected.	High impedance

■ 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: 2725T, frequency: 20 MHz, frequency stability: $\pm 30 \times 10^{-6}$, and power supply voltage: 3.3 V
Ordering Code: 2725T – 30.000000M – NSA6293C