Crystal Clock Oscillator

NDK Crystal Bridge to the Future

2725 Series

Power-saving Type

■ Model name

2725Z Frequency stability of ±100 x 10^{-6}.

■ Application

● For compact mobile information equipment, such as DVC, DSC, notebook PC, and PDA

■ Features

● A power saving-type crystal oscillator, capable of being driven by a 1.8 V. power supply.
● Consumption current during standby is 3 μA or less. Automatic mounting by taping and IR reflow (lead-free) are possible.
● Lead-free.
● 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
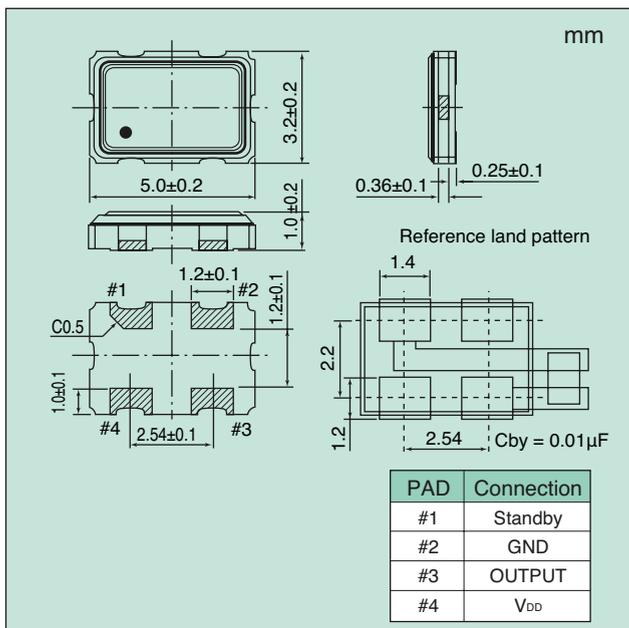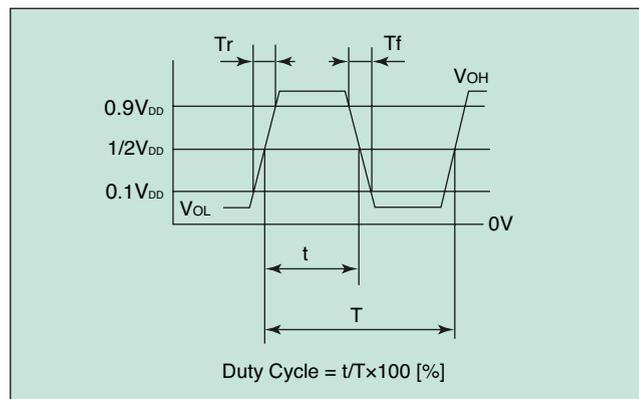Storage temperature range -55 to +125°C

■ Specifications

Item		Model	2725Z
Output level			C-MOS
Frequency range *1		(MHz)	2.5 to 40
Operating temperature range *2		(°C)	−20 to +70
Frequency stability		(×10^{-6})	±100
Power supply voltage		(V)	+1.8±0.1
Consumption current (+1.8V,25°C) max	During operation	(mA)	2 (1mA TYP.)
	During standby	(μA)	3
V_{OL} max/V_{OH} min		(V)	0.1V_{DD}/0.9V_{DD} I_{OL}=2mA I_{OH}=−2mA
Tr max/Tf max		(ns)	6/6 (0.1V_{DD} to 0.9V_{DD})
Duty Cycle min. to max.		(%)	40 to 60 (at 1/2V_{DD})
Load (C_L) max		(pF)	5
Oscillation start time max		(ms)	10
Standby function			Available (tristate)
Number for specifying an order			NSA6297A

*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
0.36±0.1
0.25±0.1

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

Reference land pattern
1.4
2.2
1.2
2.54   Cby = 0.01μF

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

■ 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: 2725Z, frequency: 20 MHz, frequency stability: ±100 x 10^{-6}, and power supply voltage: 1.8 V
Ordering Code: 2725Z – 20.000000M – NSA6297A