Crystal Clock Oscillator

NDK Crystal **Bridge to the Future**

2725 Series　　Power-saving Type

■ Model name

2725Q Frequency stability of ±100 x 10^{-6}.
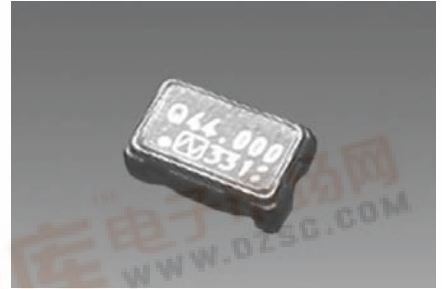
■ Application

● 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 2.5 V. power supply.
● 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
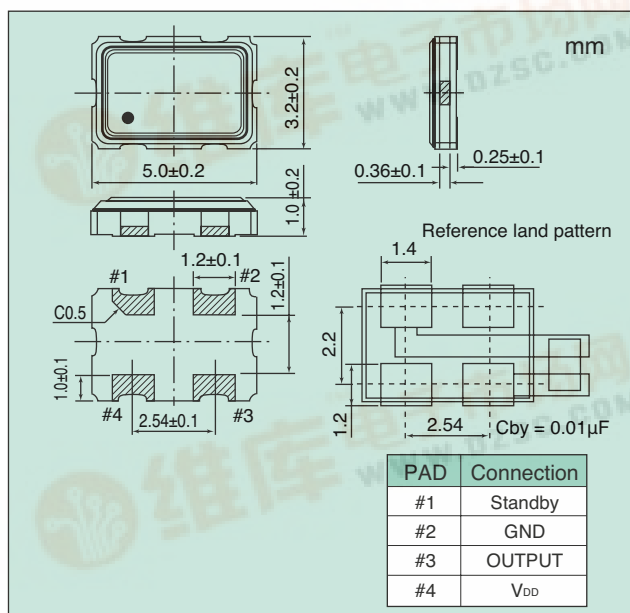
RoHS Compliant
Directive 2002/95/EC

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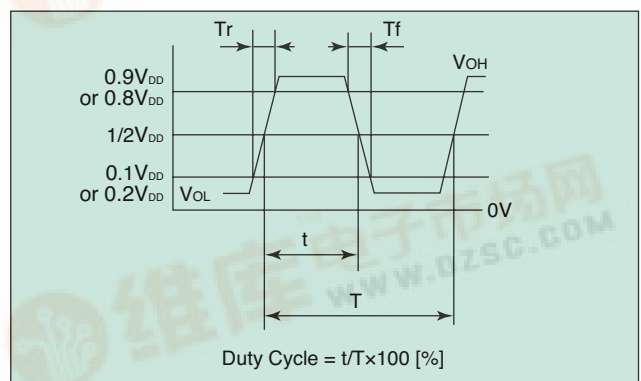
■ Specifications

Item	Model		2725Q					
Output level			C-MOS					
Frequency range [1]	(MHz)		$2.5 \leq F < 5$	$5 \leq F < 10$	$10 \leq F < 20$	$20 \leq F < 40$	$40 \leq F < 75$	$75 \leq F \leq 125$
Operating temperature range [2]	(°C)		−20 to +70					
Frequency stability	(×10^{-6})		±100					
Power supply voltage	(V)		+2.5±0.1					
Consumption current (+3.3V,25°C) max	During operation	(mA)	2	3	4	6	16	24
	During standby	(μA)	10					
V_{OL} max/V_{OH} min		(V)	$0.1V_{DD}/0.9V_{DD}$ I_{OL}=4mA I_{OH}=−4mA					$0.2V_{DD}/0.8V_{DD}$ I_{OL}=4mA I_{OH}=−4mA
Tr max/Tf max		(ns)	5/5 (0.1V_{DD} to 0.9V_{DD})					4/4 (0.2V_{DD} to 0.8V_{DD})
Duty Cycle min. to max.		(%)	40 to 60 (at 1/2V_{DD})					
Load (C_L) max		(pF)	15					
Oscillation start time max		(ms)	10					
Standby function			Available (tristate)					
Number for specifying an order			NSA6296A					

*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±0.1
#1   #2
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	Standby
#2	GND
#3	OUTPUT
#4	V_{DD}

■ Output Waveform <C-MOS>

Tr   Tf
0.9V_{DD} or 0.8V_{DD}
1/2V_{DD}
0.1V_{DD} or 0.2V_{DD}
V_{OH}
V_{OL}
0V
t
T

Duty Cycle = t/T×100 [%]

■ Standby Function

#1 Input	#3 Output
Level H (0.7 $V_{DD} \leq V_{IH} \leq V_{DD}$) or OPEN is selected.	Oscillation output ON
Level L ($V_{IL} \leq 0.3\ V_{DD}$) 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: 2725Q, frequency: 125 MHz, frequency stability: ±100 x 10^{-6}, and power supply voltage: 2.5 V
Ordering Code: 2725Q – 125.000000M – NSA6296A