Crystal Clock Oscillator

2725 Series

Power-saving Type

■ Model name

2725Q Overall frequency tolerance of ±50 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. Dimensions : 5.0 x 3.2 x 1.0 mm, weight : 0.06 g.

Pb Free
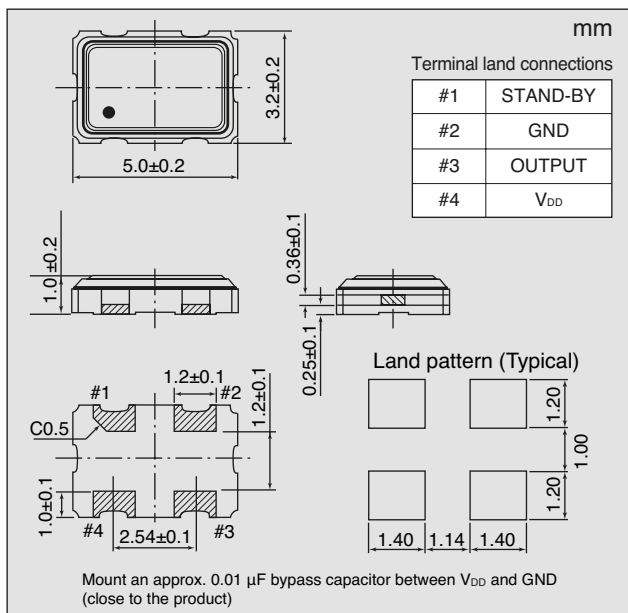
RoHS Compliant
Directive 2002/95/EC

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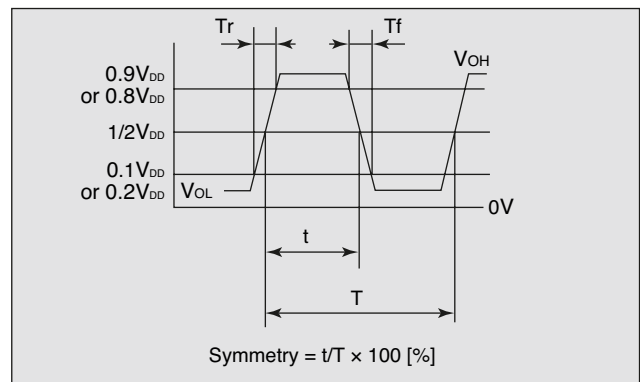Storage temperature range -55 to +125 °C

■ Specifications

Item		Model	2725Q					
Output level			CMOS					
Nominal frequency range *1		(MHz)	2.5 ≤ F < 5	5 ≤ F < 10	10 ≤ F < 20	20 ≤ F < 40	40 ≤ F < 75	75 ≤ F ≤ 125
Operating temperature range *2		(°C)	−10 to +70					
Overall frequency tolerance		(×10^{-6})	±50					
Supply voltage [V_{DD}]		(V)	+2.5±0.1					
Current consumption	During operation	(mA)	2	3	4	6	16	24
(+2.5 V, 25 °C) max	During standby	(μA)	10					
V_{OL} max/V_{OH} min		(V)	0.1 V_{DD}/0.9 V_{DD}				0.2 V_{DD}/0.8 V_{DD}	
Tr max/Tf max		(ns)	5/5 (0.1 V_{DD} to 0.9 V_{DD})				4/4 (0.2 V_{DD} to 0.8 V_{DD})	
Symmetry min. to max.		(%)	40 to 60 (at 1/2 V_{DD})					
Load (C_L) max		(pF)	15					
Start-up time max		(ms)	4			10		
Standby function			Available (tristate)					
Number for specifying an order			NSA6296B					

*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

Terminal land connections	
#1	STAND-BY
#2	GND
#3	OUTPUT
#4	V_{DD}

3.2±0.2
5.0±0.2
1.0 ±0.2
0.36±0.1
0.25±0.1

Land pattern (Typical)

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

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 <CMOS>

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

Symmetry = 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: 2725Q, frequency: 125 MHz, overall frequency tolerance: ±50 x 10^{-6}, and supply voltage: 2.5 V
Ordering Code: 2725Q – 125.000000M – NSA6296B