

## 2725 Series

## Power-saving Type

### Model name

2725Z Frequency stability of  $\pm 50 \times 10^{-6}$ .

### 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.
- Current consumption during standby is 3  $\mu\text{A}$  or less.
- 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

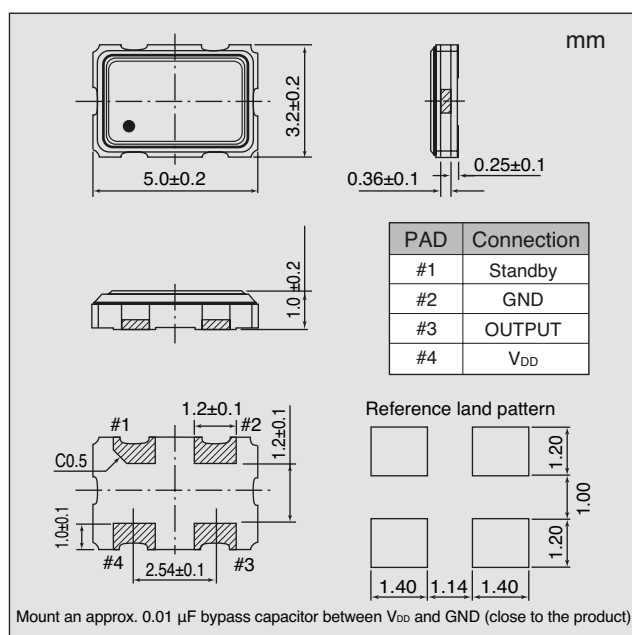


### Specifications

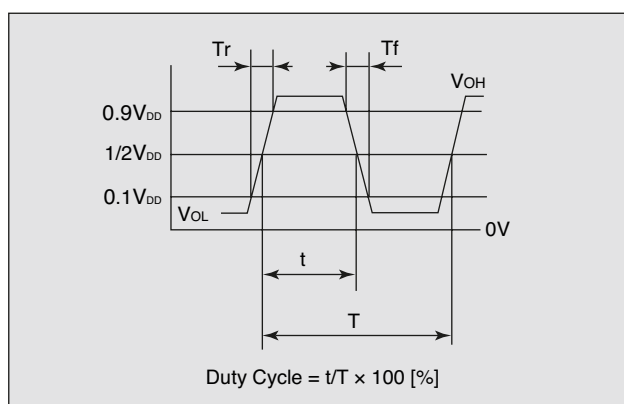
| Item                                      | Model                | 2725Z                               |
|-------------------------------------------|----------------------|-------------------------------------|
| Output level                              |                      | C-MOS                               |
| Frequency range <sup>*1</sup>             | (MHz)                | $2.5 \leq F < 40$                   |
| Operating temperature range <sup>*2</sup> | (°C)                 | -10 to +70                          |
| Frequency stability                       | ( $\times 10^{-6}$ ) | $\pm 50$                            |
| Power supply voltage [ $V_{DD}$ ]         | (V)                  | +1.8 $\pm$ 0.1                      |
| Current consumption                       | During operation     | 2 (1mA TYP.)                        |
|                                           | During standby       | 3                                   |
| $V_{OL}$ max/ $V_{OH}$ min                | (V)                  | 0.1 $V_{DD}$ /0.9 $V_{DD}$          |
| $T_r$ max/ $T_f$ max                      | (ns)                 | 6/6 (0.1 $V_{DD}$ to 0.9 $V_{DD}$ ) |
| Duty Cycle min. to max.                   | (%)                  | 40 to 60 (at 1/2 $V_{DD}$ )         |
| Load ( $C_L$ ) max                        | (pF)                 | 5                                   |
| Oscillation start time max                | (ms)                 | 4                                   |
| Standby function                          |                      | Available (tristate)                |
| Number for specifying an order            |                      | NSA6297B                            |

\*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



### Output Waveform <C-MOS>



### Standby Function

| #1 Input                                                                 | #3 Output             |
|--------------------------------------------------------------------------|-----------------------|
| Level H ( $0.7 V_{DD} \leq V_{IH} \leq V_{DD}$ )<br>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: 2725Z, frequency: 20 MHz, frequency stability:  $\pm 50 \times 10^{-6}$ , and power supply voltage: 1.8 V  
Ordering Code: 2725Z - 20.000000M - NSA6297B