

# Crystal Clock Oscillator

## 2725 Series

## Power-saving Type

### 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 2011/65/EU

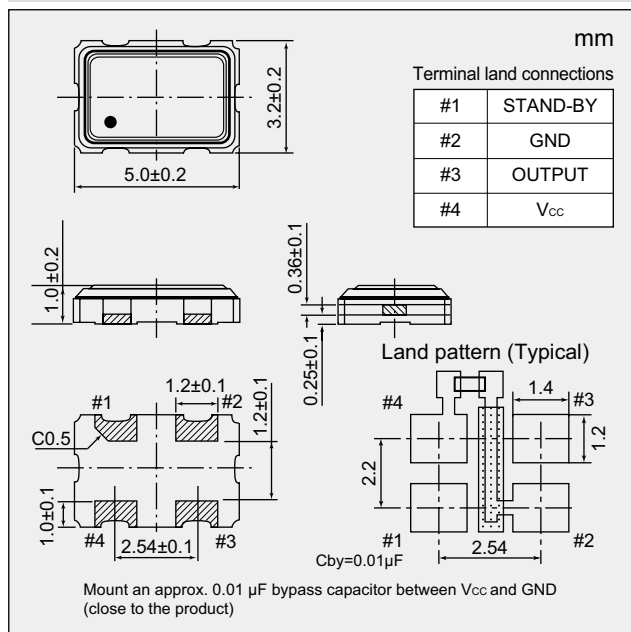
Absolute maximum rating  
Supply Voltage (V<sub>CC</sub>) -0.5 to +7.0 V  
Storage Temperature Range -55 to +125 °C



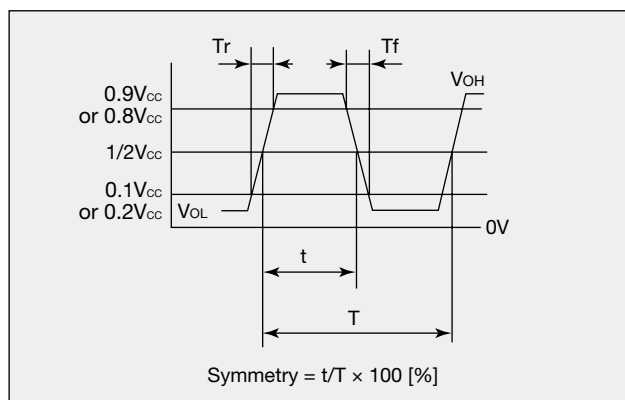
### Specifications

| Item                                    |                  |        | Model                | 2725Q                                             |            |             |             |             |              |                                                      |
|-----------------------------------------|------------------|--------|----------------------|---------------------------------------------------|------------|-------------|-------------|-------------|--------------|------------------------------------------------------|
| Output Level                            |                  |        |                      | CMOS                                              |            |             |             |             |              |                                                      |
| Nominal Frequency Range                 |                  |        | (MHz)                | 2.5 ≤ F < 5                                       | 5 ≤ F < 10 | 10 ≤ F < 20 | 20 ≤ F < 40 | 40 ≤ F < 75 | 75 ≤ F ≤ 125 |                                                      |
| Operating Temperature Range             |                  |        | (°C)                 | −10 to +70                                        |            |             |             |             |              |                                                      |
| Overall Frequency Tolerance             |                  |        | (×10 <sup>−6</sup> ) | ±50                                               |            |             |             |             |              |                                                      |
| Supply Voltage [V <sub>CC</sub> ]       |                  |        | (V)                  | +2.5±0.1                                          |            |             |             |             |              |                                                      |
| Current Consumption Max.                | During Operation | +25 °C | (mA)                 | 2                                                 | 3          | 4           | 6           | 16          | 24           |                                                      |
|                                         | During Standby   | +25 °C | (μA)                 | 10                                                |            |             |             |             |              |                                                      |
| V <sub>OL</sub> max/V <sub>OH</sub> min |                  |        | (V)                  | 0.1 V <sub>CC</sub> /0.9 V <sub>CC</sub>          |            |             |             |             |              | 0.2 V <sub>CC</sub> /0.8 V <sub>CC</sub>             |
| Tr Max. / Tf Max.                       |                  |        | (ns)                 | 5/5 (0.1 V <sub>CC</sub> to 0.9 V <sub>CC</sub> ) |            |             |             |             |              | 4/4<br>(0.2 V <sub>CC</sub> to 0.8 V <sub>CC</sub> ) |
| Symmetry Min. to Max.                   |                  |        | (%)                  | 40 to 60 (at 1/2 V <sub>CC</sub> )                |            |             |             |             |              |                                                      |
| Load (C <sub>L</sub> ) Max.             |                  |        | (pF)                 | 15                                                |            |             |             |             |              |                                                      |
| Start-up time Max.                      |                  |        | (ms)                 | 4                                                 |            |             |             | 10          |              |                                                      |
| Standby function                        |                  |        |                      | Available (Three-state)                           |            |             |             |             |              |                                                      |
| Specification Number                    |                  |        |                      | NSA6296B                                          |            |             |             |             |              |                                                      |

### Dimensions



### Output Waveform <CMOS>



### Standby Function

| #1 Input                                                              | #3 Output             |
|-----------------------------------------------------------------------|-----------------------|
| Level H ( $0.7 V_{CC} \leq V_{IH} \leq V_{CC}$ ) or OPEN is selected. | Oscillation output ON |
| Level L ( $V_{IL} \leq 0.3 V_{CC}$ ) is selected.                     | High impedance        |

Please specify the model name, frequency, and specification number when you order products.  
For further questions regarding specifications, please feel free to contact us.