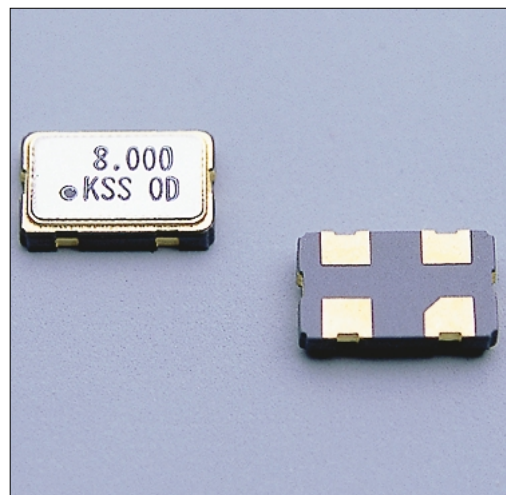


# FXO-61F

## Miniature Clock Crystal Oscillator

### ■Features

- Ultra-thin, thickness (5×3.2×1.2mm).
- It is a compact and thin ceramic package with a matalized lead for surface mounting that is able to be automatically loaded.
- Reflow soldering is possible.
- CMOS, TTL IC direct drive is possible. Depending upon the frequency band, there is also a crystal oscillator with a CMOS-IC with a tri-state function built in.
- Use in the broad frequency band from 1.8MHz to 50MHz is possible.

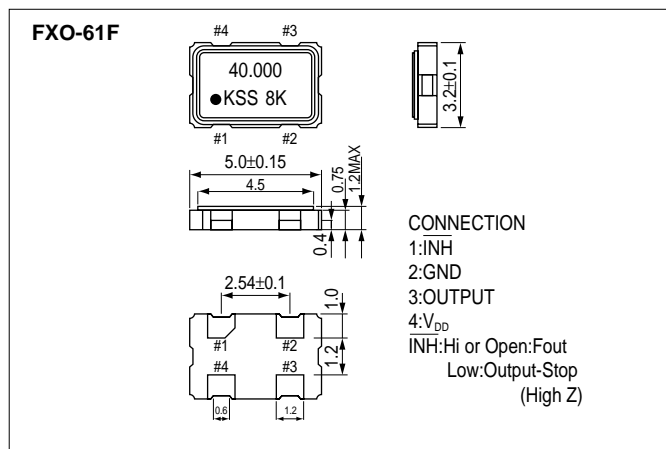


### ■Specifications

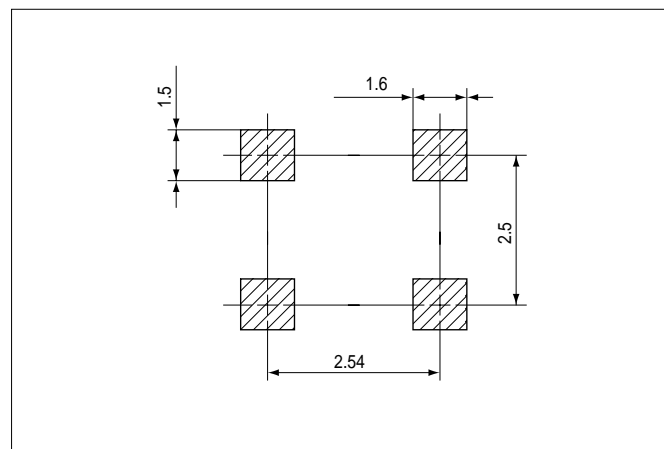
| Item                        | Type | FXO-61F   | FXO-61FH  | FXO-61FT  | FXO-61FL  |
|-----------------------------|------|---|---|---|---|
| Application                 |      | C-MOS Output Type   | C-MOS Output Heavy Load Type  | TTL Output Type                                     | Low Voltage Type  |
| Frequency Range             |      | 1.8~50MHz   |   |   |   |
| Standard Frequency          |      | *1  |   |   |   |
| Frequency Stability         |      | ±100×10 <sup>-6</sup>   |   |   |   |
| Operating Temperature Range |      | -10~+70℃  |   |   |   |
| Storage Temperature Range   |      | -55~+125℃   |   |   |   |
| Supply Voltage              |      | 5V±0.5V   |   |   | 3.3V±0.3V   |
| Current                     |      | 25mA MAX.   | 25mA MAX. (1.8~15.0MHz)<br>30mA MAX. (15.1~32.0MHz)<br>45mA MAX. (32.1~50.0MHz) | 18mA MAX. (1.8~39.9MHz)<br>25mA MAX. (40.0~50.0MHz) |   |
| Load                        |      | 15pF (LS10TTL)  | 50pF (10TTL)  | 20pF (5TTL)   |   |
| Output Level                |      | V <sub>OH</sub> : 0.9×V <sub>DD</sub> MIN.<br>V <sub>OL</sub> : 0.5V MAX. |   |   | V <sub>OH</sub> : 0.9×V <sub>DD</sub> MIN.<br>V <sub>OL</sub> : 0.4V MAX. |
| Output Symmetry             |      | 40~60%(VT=1/2V <sub>DD</sub> )  |   | 40~60%(VT=1.4V)                                     | 40~60%<br>(VT=1/2V <sub>DD</sub> )  |
| Rise Time/Fall Time         |      | 10ns MAX.   |   | 6ns MAX.  |   |
| Start-up Time               |      | 10ms MAX.   |   |   |   |
| Vibration                   |      | 10~55Hz Amplitude 1.5mm, Cycle 2 minute, 3 direction, 2 hour each         |   |   |   |
| Shock                       |      | 1000G   |   |   |   |
| Weight                      |      | 0.1g  |   |   |   |

\*1 Please contact us for standard frequency.

### ■Outline



### ■Land Pattern(reference)



Dimensions(mm)