

# Clock Oscillators Surface Mount Type KC7050B Series (FXO-34F Series)



CMOS/ 3.3V/ 5.0V/ 7.0×5.0mm



Pb Free

RoHS Compliant

## Features

- This crystal oscillator has a built-in high-precision CMOS IC suitable for a wide range of temperature
- Lower noise and lower current for reduced power consumption
- Supply voltage  $V_{CC}$ =3.3/ 5.0V available

## Frequency Tolerance (Overall)

| Freq. Tol. Code | $\times 10^{-6}$ | Operating Temperature Range (°C) | Note         |
|-----------------|------------------|----------------------------------|--------------|
| P               | $\pm 100$        | -30 to +85 (Standard)            | 1.8 to 32MHz |
| Q               | $\pm 50$         |                                  |              |
| R               | $\pm 30$         |                                  |              |

## How to Order

KC7050B 25.0000 C 3 Q B 00  
① ② ③ ④ ⑤ ⑥ ⑦

- ① Type
- ② Output Frequency
- ③ Output Type (CMOS)
- ④ Supply Voltage 5=5.0V, 3=3.3V
- ⑤ Frequency Tolerance (See Table at Left)
- ⑥ Symmetry/ Enable Function  
A: 40/ 60%, Disable  
B: 40/ 60%, Stand-by
- ⑦ Customer Special Model Suffix (STD Specification is "00")

## Symmetry/ Enable Function

| Freq. (MHz) | Code       |            |
|-------------|------------|------------|
|             | KC7050B-C5 | KC7050B-C3 |
| 1.8 to 7.9  | A          | A          |
| to 32       | B          | B          |

## Specifications

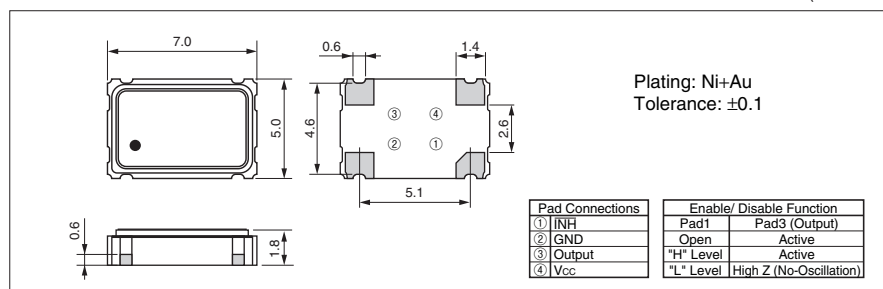
| Item                          | Symbol            | Specifications                 |                                 | Units             |
|-------------------------------|-------------------|--------------------------------|---------------------------------|-------------------|
|                               |                   | KC7050Bxx.xxxxC5xx00 (FXO-34F) | KC7050Bxx.xxxxC3xx00 (FXO-34FL) |                   |
| Output Frequency Range        | f <sub>o</sub>    | 1.8 to 32                      |                                 | MHz               |
| Frequency Tolerance (Overall) | f <sub>tol</sub>  | ±30                            |                                 | ×10 <sup>-6</sup> |
|                               |                   | ±50                            |                                 |                   |
|                               |                   | ±100                           |                                 |                   |
| Storage Temperature Range     | T <sub>stg</sub>  | −40 to +85                     |                                 | °C                |
| Operating Temperature Range   | T <sub>use</sub>  | −30 to +85                     |                                 | °C                |
| Max. Supply Voltage           | —                 | 7 max.                         |                                 | V                 |
| Supply Voltage                | V <sub>CC</sub>   | 5±5%                           | 3.3±5%                          | V                 |
| Current Consumption           | I <sub>CC</sub>   | 12 max.                        | 10 max.                         | mA                |
| Stand-by Current              | I <sub>std</sub>  | 8 max.                         |                                 | μA                |
| Symmetry                      | SYM               | 40 to 60@50%V <sub>CC</sub>    |                                 | %                 |
| Rise/ Fall Time               | tr/ tf            | 12 max.                        | 16 max.                         | nS                |
| Low Level Output Voltage      | V <sub>OL</sub>   | 10% V <sub>CC</sub> max.       |                                 | V                 |
| High Level Output Voltage     | V <sub>OH</sub>   | 90% V <sub>CC</sub> min.       |                                 | V                 |
| CMOS Load                     | L <sub>CMOS</sub> | 15 max.                        |                                 | pF                |
| Input Voltage Range           | V <sub>IN</sub>   | 0 to V <sub>CC</sub>           | 0 to V <sub>CC</sub>            | V                 |
| Low Level Input Voltage       | V <sub>IL</sub>   | 0.8 max.                       | 0.3 max.                        | V                 |
| High Level Input Voltage      | V <sub>IH</sub>   | 2.2 min.                       | 2.2 min.                        | V                 |
| Disable Time                  | t <sub>dis</sub>  | 150 max.                       |                                 | nS                |
| Enable Time                   | t <sub>ena</sub>  | 5 max.                         |                                 | mS                |
| Start-up Time                 | t <sub>str</sub>  | 10 max.                        |                                 | mS                |

Note: All electrical characteristics are defined at the maximum load and operating temperature range.

Please contact us for inquiry about operating temperature range, available frequencies and other conditions.

## Dimensions

(Unit: mm)



## Recommended Land Pattern

(Unit: mm)

