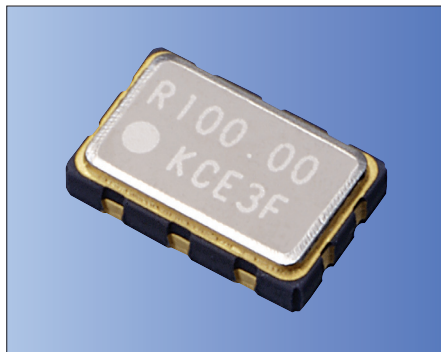


# Clock Oscillators Surface Mount Type

## KC5032P-P2 Series



LV-PECL/ 2.5V/ 5.0×3.2mm



RoHS Compliant

### Features

- Miniature ceramic package
- Highly reliable with seam welding
- LV-PECL output
- Supply voltage  $V_{CC}=2.5V$
- $\pm 25 \times 10^{-6}$  available

Table 1

| Freq. Code | Tol. $\times 10^{-6}$ | Operating Temperature Range (°C) | Note                    |                               |
|------------|-----------------------|----------------------------------|-------------------------|-------------------------------|
| 0          | $\pm 50$              | 0 to +70                         | Standard specifications |                               |
| S          | $\pm 30$              |                                  | -40 to +85              | With only certain frequencies |
| U          | $\pm 25$              |                                  |                         |                               |
| F          | $\pm 100$             |                                  |                         |                               |
| G          | $\pm 50$              |                                  |                         |                               |

### How to Order

KC5032P 125.000 P 2 0 E 00  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (5.0×3.2mm SMD)
- ② Output Frequency
- ③ Output Type (LV-PECL)
- ④ Supply Voltage (2.5V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ INH Function (45/ 55%, Stand-by)
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

### Specifications

| Item                                         | Symbol           | Conditions                                                                                                                                |                                     | Min.                   | Max.                   | Units             |
|----------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------|------------------------|-------------------|
| Output Frequency Range <sup>Note1</sup>      | f <sub>o</sub>   |                                                                                                                                           |                                     | 50                     | 190                    | MHz               |
| Frequency Tolerance                          | f <sub>tol</sub> | Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration | Op. Temp.: -40 to +85°C             | -100                   | +100                   | ×10 <sup>-6</sup> |
|                                              |                  |                                                                                                                                           | Op. Temp.: 0 to +70°C/ -40 to +85°C | -50                    | +50                    |                   |
|                                              |                  |                                                                                                                                           | Op. Temp.: 0 to +70°C               | -30                    | +30                    |                   |
|                                              |                  |                                                                                                                                           | Op. Temp.: 0 to +70°C               | -25                    | +25                    |                   |
| Storage Temperature Range                    | T <sub>stg</sub> |                                                                                                                                           |                                     | -55                    | +125                   | °C                |
| Operating Temperature Range                  | T <sub>use</sub> | Standard Specifications                                                                                                                   |                                     | 0                      | +70                    | °C                |
|                                              |                  | Extend (Option)                                                                                                                           |                                     | -40                    | +85                    |                   |
| Max. Supply Voltage                          | —                |                                                                                                                                           |                                     | -0.5                   | +5                     | V                 |
| Supply Voltage                               | V <sub>CC</sub>  |                                                                                                                                           |                                     | 2.375                  | 2.625                  | V                 |
| Current Consumption                          | I <sub>CC</sub>  |                                                                                                                                           |                                     | —                      | 90                     | mA                |
| Stand-by Current                             | I <sub>std</sub> |                                                                                                                                           |                                     | —                      | 30                     | μA                |
| Symmetry                                     | SYM              | 50ohm @50% Output Swing                                                                                                                   |                                     | 45                     | 55                     | %                 |
| Rise/ Fall Time<br>(20% to 80% Output Level) | tr/ tf           | 50ohm                                                                                                                                     |                                     | —                      | 0.6                    | nS                |
| Low Level Output Voltage <sup>Note2</sup>    | V <sub>OL</sub>  | Op. Temp.: 0 to +85°C/ Typ. 0.800V                                                                                                        |                                     | V <sub>CC</sub> -1.810 | V <sub>CC</sub> -1.405 | V                 |
|                                              |                  | Op. Temp.: -40 to 0°C/ Typ. 0.805V                                                                                                        |                                     | V <sub>CC</sub> -1.830 | V <sub>CC</sub> -1.305 |                   |
| High Level Output Voltage <sup>Note2</sup>   | V <sub>OH</sub>  | Op. Temp.: 0 to +85°C/ Typ. 1.550V                                                                                                        |                                     | V <sub>CC</sub> -1.025 | V <sub>CC</sub> -0.740 | V                 |
|                                              |                  | Op. Temp.: -40 to 0°C/ Typ. 1.495V                                                                                                        |                                     | V <sub>CC</sub> -1.085 | V <sub>CC</sub> -0.880 |                   |
| Output Load                                  | RL               | LV-PECL Output                                                                                                                            |                                     | 50                     |                        | ohm               |
| Input Voltage Range                          | V <sub>IN</sub>  |                                                                                                                                           |                                     | 0                      | V <sub>CC</sub>        | V                 |
| Low Level Input Voltage                      | V <sub>IL</sub>  |                                                                                                                                           |                                     | —                      | 30% V <sub>CC</sub>    | V                 |
| High Level Input Voltage                     | V <sub>IH</sub>  |                                                                                                                                           |                                     | 70% V <sub>CC</sub>    | —                      | V                 |
| Disable Time                                 | t <sub>dis</sub> |                                                                                                                                           |                                     | —                      | 150                    | nS                |
| Enable Time                                  | t <sub>ena</sub> |                                                                                                                                           |                                     | —                      | 10                     | mS                |
| Start-up Time                                | t <sub>str</sub> | @Minimum operating voltage to be 0 sec.                                                                                                   |                                     | —                      | 10                     | mS                |
| Deterministic Jitter (DJ)                    | DJ               | Measured with Wavecrest DTS-2079 V/S/ 6.3.1                                                                                               |                                     | —                      | 2                      | pS                |
| 1 Sigma Jitter                               | JSigma           |                                                                                                                                           |                                     | —                      | 4                      | pS                |
| Peak to Peak Jitter                          | JPK-PK           |                                                                                                                                           |                                     | —                      | 30                     | pS                |

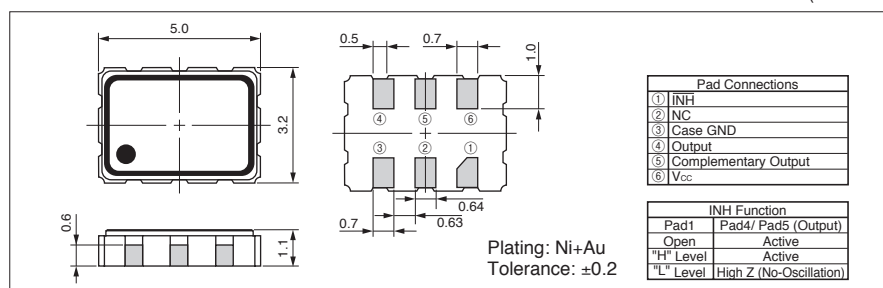
Note : All electrical characteristics are defined at the maximum load and operating temperature range.

Note1: Please contact us for inquiry about operating temperature range, available frequencies and other conditions.

Note2: DC characteristic

### Dimensions

(Unit: mm)



### Recommended Land Pattern

(Unit: mm)

