



Pb Free

RoHS Compliant

**Features**

- Miniature ceramic package
- Highly reliable with seam welding
- CMOS output
- Supply voltage  $V_{CC}=5.0V$
- $\pm 25 \times 10^{-6}$  available

**Table 1**

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

**How to Order**

**KC5032C 25.0000 C 5 0 D 00**  
 ① ② ③ ④ ⑤ ⑥ ⑦

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

Packaging (Tape & Reel 1000 pcs./ reel)

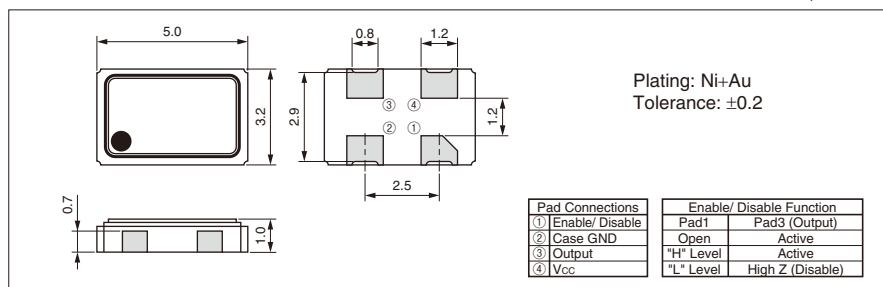
**Specifications**

| Item  | Symbol      | Conditions  | Min.                                  | Max.         | Units |                  |
|---|-------------|---|---------------------------------------|--------------|-------|------------------|
| Output Frequency Range  | $f_o$       |   | 1.8                                   | 50           | MHz   |                  |
| Frequency Tolerance   | $f_{tol}$   | 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  | $\times 10^{-6}$ |
|   |             |   | Op. Temp.: -10 to +70°C/ -40 to +85°C | -50          | +50   |                  |
|   |             |   | Op. Temp.: -10 to +70°C               | -30          | +30   |                  |
|   |             |   | Op. Temp.: -10 to +70°C               | -25          | +25   |                  |
| Storage Temperature Range                                     | $T_{stg}$   |   | -55                                   | +125         | °C    |                  |
| Operating Temperature Range                                   | $T_{use}$   | Standard Specifications   | -10                                   | +70          | °C    |                  |
|   |             | Extend (Option)   | -40                                   | +85          |       |                  |
| Max. Supply Voltage   | —           |   | -0.5                                  | +7           | V     |                  |
| Supply Voltage  | $V_{CC}$    | Freq. Tol.Code: 0, S, F   | 4.5                                   | 5.5          | V     |                  |
|   |             | Freq. Tol.Code: U, G  | 4.75                                  | 5.25         |       |                  |
| Current Consumption (Maximum Loaded)                          | $I_{CC}$    | $1.8 \leq f_o \leq 20MHz$   | —                                     | 25           | mA    |                  |
|   |             | $20 < f_o \leq 40MHz$   | —                                     | 35           |       |                  |
|   |             | $40 < f_o \leq 50MHz$   | —                                     | 50           |       |                  |
| Disable Current   | $I_{dis}$   |   | —                                     | 30           | mA    |                  |
| Symmetry  | SYM         | @ 50% $V_{CC}$  | 45                                    | 55           | %     |                  |
| Rise/ Fall Time (10% $V_{CC}$ to 90% $V_{CC}$ Maximum Loaded) | $t_r / t_f$ | $1.8 \leq f_o \leq 26MHz$   | —                                     | 10           | nS    |                  |
|   |             | $26 < f_o \leq 50MHz$   | —                                     | 8            |       |                  |
| Low Level Output Voltage                                      | $V_{OL}$    | $I_{OL}=16mA$   | —                                     | 10% $V_{CC}$ | V     |                  |
| High Level Output Voltage                                     | $V_{OH}$    | $I_{OH}=-16mA$  | 90% $V_{CC}$                          | —            | V     |                  |
| CMOS Load   | $L_{CMOS}$  | CMOS Output   | —                                     | 50           | pF    |                  |
| Input Voltage Range   | $V_{IN}$    |   | 0                                     | $V_{CC}$     | V     |                  |
| Low Level Input Voltage                                       | $V_{IL}$    |   | —                                     | 0.8          | V     |                  |
| High Level Input Voltage                                      | $V_{IH}$    |   | 2.2                                   | —            | V     |                  |
| Disable Time  | $t_{dis}$   |   | —                                     | 100          | nS    |                  |
| Enable Time   | $t_{ena}$   |   | —                                     | 100          | nS    |                  |
| Start-up Time   | $t_{str}$   | @ Minimum operating voltage to be 0 sec.  | —                                     | 10           | mS    |                  |
| 1 Sigma Jitter  | $J_{Sigma}$ | Measured with Wavecrest DTS-2079 V/SI 6.3.1   | $1.8 \leq f_o < 40MHz$                | —            | 8     | pS               |
|   |             |   | $40 \leq f_o \leq 50MHz$              | —            | 5     | pS               |
| Peak to Peak Jitter   | $J_{PK-PK}$ |   | $1.8 \leq f_o < 40MHz$                | —            | 80    | pS               |
|   |             |   | $40 \leq f_o \leq 50MHz$              | —            | 40    | pS               |

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)

