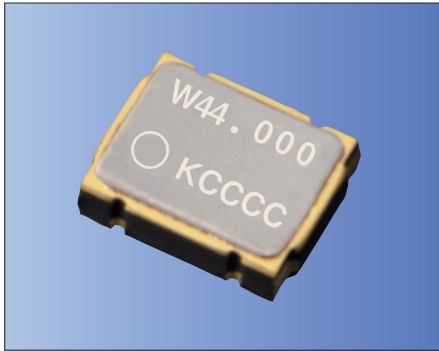




CMOS/ 2.5V/ 3.2×2.5mm



RoHS Compliant

**Features**

- Miniature ceramic package
- Highly reliable with seam welding
- CMOS output
- Supply voltage Vcc=2.5V  
Lower voltage available
- ±25×10<sup>-6</sup> available

**Table 1**

| Freq. Tol. Code | Tol. × 10 <sup>-6</sup> | Operating Temperature Range (°C) | Note                                         |
|-----------------|-------------------------|----------------------------------|----------------------------------------------|
| 0               | ± 50                    | -10 to +70                       | Standard specifications                      |
| S               | ± 30                    |                                  |                                              |
| U               | ± 25                    |                                  |                                              |
| F               | ±100                    | -40 to +85                       | Please contact us for available frequencies. |
| G               | ± 50                    |                                  |                                              |
| 6               | ± 50                    | -40 to +105                      |                                              |

**How to Order**

KC3225A 25.0000 C 2 □ E 00  
①                      ②                      ③ ④ ⑤ ⑥ ⑦

- ①Series
- ②Output Frequency
- ③Output Type (CMOS)
- ④Supply Voltage (2.5V)
- ⑤Frequency Tolerance (See Table 1)
- ⑥Symmetry/ INH Function (45/ 55%)
- ⑦Individual Specification (STD Specification is "00")

Packaging (Tape & Reel 2000 pcs./ reel)

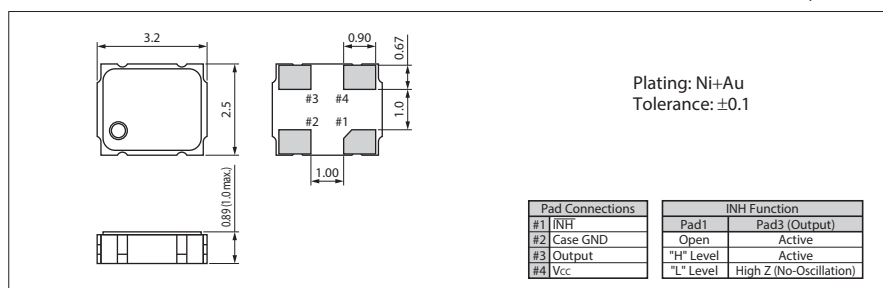
**Specifications**

| Item                                                                        | Symbol             | Conditions                                                                                                                                | Min.                                                | Max.                | Unit |                    |
|-----------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------|------|--------------------|
| Output Frequency Range                                                      | fo                 |                                                                                                                                           | 1.5                                                 | 125                 | 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 | Temp.: -40 to +85°C                                 | -100                | +100 | × 10 <sup>-6</sup> |
|                                                                             |                    |                                                                                                                                           | Temp.: -10 to +70°C/<br>-40 to +85°C/ -40 to +105°C | -50                 | +50  |                    |
|                                                                             |                    |                                                                                                                                           | Temp.: -10 to +70°C                                 | -30                 | +30  |                    |
|                                                                             |                    |                                                                                                                                           | Temp.: -10 to +70°C                                 | -25                 | +25  |                    |
| Storage Temperature Range                                                   | T <sub>stg</sub>   |                                                                                                                                           | -55                                                 | +125                | °C   |                    |
| Operating Temperature Range                                                 | T <sub>use</sub>   | Standard Specifications                                                                                                                   | -10                                                 | +70                 | °C   |                    |
|                                                                             |                    | Extend (Option)                                                                                                                           | -40                                                 | +85                 |      |                    |
| Max. Supply Voltage                                                         | —                  |                                                                                                                                           | -40                                                 | +105                |      |                    |
| Supply Voltage                                                              | V <sub>cc</sub>    | Freq. Tol. Code: 0, S, F                                                                                                                  | -0.5                                                | +7.0                | V    |                    |
|                                                                             |                    | Freq. Tol. Code: U, G, 6                                                                                                                  | +2.25                                               | +2.75               | V    |                    |
| Current Consumption (Maximum Loaded)                                        | I <sub>cc</sub>    | 1.5 ≤ fo ≤ 26MHz                                                                                                                          | +2.38                                               | +2.62               | mA   |                    |
|                                                                             |                    | 26 < fo ≤ 50MHz                                                                                                                           | —                                                   | 4                   |      |                    |
|                                                                             |                    | 50 < fo ≤ 67.5MHz                                                                                                                         | —                                                   | 6                   |      |                    |
|                                                                             |                    | 67.5 < fo ≤ 95MHz                                                                                                                         | —                                                   | 9                   |      |                    |
|                                                                             |                    | 95 < fo ≤ 125MHz                                                                                                                          | —                                                   | 14                  |      |                    |
| Stand-by Current                                                            | I <sub>std</sub>   |                                                                                                                                           | —                                                   | 18                  | μA   |                    |
| Symmetry                                                                    | SYM                | @50% V <sub>cc</sub>                                                                                                                      | —                                                   | 10                  | %    |                    |
| Rise/ Fall Time (10% V <sub>cc</sub> to 90% V <sub>cc</sub> Maximum Loaded) | Tr/ Tf             | 1.5 ≤ fo ≤ 67.5MHz                                                                                                                        | 45                                                  | 55                  | ns   |                    |
| Low Level Output Voltage                                                    | V <sub>OL</sub>    | 10L=4mA                                                                                                                                   | —                                                   | 6                   | V    |                    |
| High Level Output Voltage                                                   | V <sub>OH</sub>    | 10H=-4mA                                                                                                                                  | —                                                   | 4                   |      |                    |
| CMOS Load                                                                   | L <sub>CMOS</sub>  | CMOS Output                                                                                                                               | 90% V <sub>cc</sub>                                 | —                   | pF   |                    |
| Input Voltage Range                                                         | V <sub>IN</sub>    |                                                                                                                                           | —                                                   | 15                  | V    |                    |
| Low Level Input Voltage                                                     | V <sub>IL</sub>    |                                                                                                                                           | 0                                                   | V <sub>cc</sub>     | V    |                    |
| High Level Input Voltage                                                    | V <sub>IH</sub>    |                                                                                                                                           | —                                                   | 30% V <sub>cc</sub> | V    |                    |
| Disable Time                                                                | t <sub>dis</sub>   |                                                                                                                                           | 70% V <sub>cc</sub>                                 | —                   | V    |                    |
| Enable Time                                                                 | t <sub>ena</sub>   |                                                                                                                                           | —                                                   | 150                 | ns   |                    |
| Start-up Time                                                               | t <sub>str</sub>   | @Minimum operating voltage to be 0 sec.                                                                                                   | —                                                   | 5                   | ms   |                    |
| 1 Sigma Jitter                                                              | J <sub>Sigma</sub> | Measured with Wavcrest SIA-3000                                                                                                           | 1.5 ≤ fo ≤ 60MHz                                    | —                   | 8    | ps                 |
|                                                                             |                    |                                                                                                                                           | 60 < fo ≤ 125MHz                                    | —                   | 5    |                    |
| Peak to Peak Jitter                                                         | J <sub>PK-PK</sub> | Measured with Wavcrest SIA-3000                                                                                                           | 1.5 ≤ fo ≤ 60MHz                                    | —                   | 80   | ps                 |
|                                                                             |                    |                                                                                                                                           | 60 < fo ≤ 125MHz                                    | —                   | 40   |                    |

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)

