



CMOS/ 3.3V/ 7.0×5.0mm



RoHS Compliant

Features

- Miniature ceramic package
- Highly reliable with seam welding
- CMOS output
- Supply voltage Vcc=3.3V
- ±25×10⁻⁶, ±20×10⁻⁶ available

Table 1

| Stability Code | × 10 ⁻⁶ | Operating Temperature Range (°C) | Note |
|----------------|--------------------|----------------------------------|--|
| 0 | ± 50 | -10 to +70 | Standard specifications |
| S | ± 30 | | |
| U | ± 25 | | |
| W | ± 20 | | |
| F | ±100 | -40 to +85 | Please contact us for available frequencies. |
| G | ± 50 | | |
| 6 | ± 50 | -40 to +105 | |

How to Order

KC7050A **25.0000** **C** **3** **□** **E** **00**
 ① ② ③ ④ ⑤ ⑥ ⑦

- ①Series
- ②Output Frequency
- ③Output Type (CMOS)
- ④Supply Voltage (3.3V)
- ⑤Frequency Tolerance (See Table 1)
- ⑥Symmetry/ INH Function (45/ 55%)
- ⑦Individual Specification (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

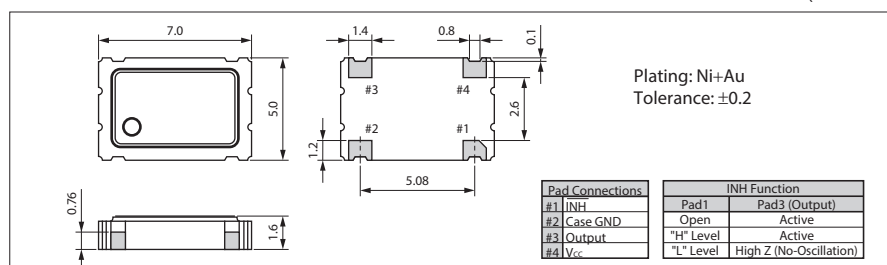
Specifications

| Item | Symbol | Conditions | Min. | Max. | Unit | |
|---|--------------------|---|--|---------------------|------|--------------------|
| Output Frequency Range | f _o | | 1.8 | 170 | 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 | Temp.: -40 to +85°C | -100 | +100 | × 10 ⁻⁶ |
| | | | Temp.: -10 to +70°C/ -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 _{stg} | | -55 | +125 | °C | |
| Operating Temperature Range | T _{use} | Standard Specifications | -10 | +70 | °C | |
| | | Extend (Option) | -40 | +85 | | |
| Max. Supply Voltage | — | f _o < 135MHz | -0.5 | +7.0 | V | |
| | | f _o ≥ 135MHz | -0.5 | +5.0 | | |
| Supply Voltage | V _{cc} | Freq. Tol. Code: 0, S, F | +2.97 | +3.63 | V | |
| | | Freq. Tol. Code: U, G, 6 | +3.14 | +3.46 | | |
| | | Freq. Tol. Code: W | +3.20 | +3.40 | | |
| Current Consumption (Maximum Loaded) | I _{cc} | 1.8 ≤ f _o ≤ 20MHz | — | 10 | mA | |
| | | 20 < f _o ≤ 40MHz | — | 15 | | |
| | | 40 < f _o ≤ 60MHz | — | 30 | | |
| | | 60 < f _o ≤ 100MHz | — | 35 | | |
| | | 100 < f _o ≤ 135MHz | — | 45 | | |
| Stand-by Current | I _{std} | | — | 10 | μA | |
| Symmetry | SYM | @50% V _{cc} | 45 | 55 | % | |
| Rise/ Fall Time (10% V _{cc} to 90% V _{cc} Maximum Loaded) | Tr/ Tf | 1.8 ≤ f _o ≤ 26MHz | — | 10 | ns | |
| | | 26 < f _o ≤ 45MHz | — | 8 | | |
| | | 45 < f _o ≤ 100MHz | — | 5 | | |
| | | 100 < f _o ≤ 170MHz | — | 2.5 | | |
| Low Level Output Voltage | V _{OL} | I _{oL} = 8mA | — | 10% V _{cc} | V | |
| High Level Output Voltage | V _{OH} | I _{oH} = -8mA | 90% V _{cc} | — | V | |
| CMOS Load | L _{CMOS} | CMOS Output | — | 15 | pF | |
| Input Voltage Range | V _{IN} | | 0 | V _{cc} | V | |
| Low Level Input Voltage | V _{IL} | | — | 30% V _{cc} | V | |
| High Level Input Voltage | V _{IH} | | 70% V _{cc} | — | V | |
| Disable Time | t _{dis} | | — | 150 | ns | |
| Enable Time | t _{ena} | | — | 5 | ms | |
| Start-up Time | t _{str} | @Minimum operating voltage to be 0 sec. | — | 10 | ms | |
| 1 Sigma Jitter | J _{sigma} | Measured with Wavcrest SIA-3000 | 1.8 ≤ f _o < 40MHz | — | 8 | ps |
| | | | 40 ≤ f _o ≤ 100MHz | — | 5 | |
| | | | 100 < f _o ≤ 170MHz | — | 4 | |
| Peak to Peak Jitter | J _{PK-PK} | Measured with Wavcrest SIA-3000 | 1.8 ≤ f _o < 40MHz | — | 80 | ps |
| | | | 40 ≤ f _o ≤ 100MHz | — | 40 | |
| | | | 100 < f _o ≤ 170MHz | — | 30 | |

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)

