

CMOS/ 1.8V, 2.5V, 3.3V, 5.0V/ 5.0×3.2mm



RoHS Compliant

Features

- Wide operating voltage range 1.6 to 5.5V
- ±25×10⁻⁶ available
- Highly reliable with seam welding
- Miniature ceramic package
- CMOS output

Table 1

| Freq. Tol. Code | Tol. × 10 ⁻⁶ | Operating Temperature Range (°C) | Note |
|-----------------|-------------------------|----------------------------------|-------------------------------|
| 0 | ± 50 | -10 to +70 | Standard specifications |
| S | ± 30 | | |
| U | ± 25 | | |
| F | ±100 | -40 to +85 | With only certain frequencies |
| G | ± 50 | | |
| 6 | ± 50 | | |

How to Order

KC5032A 25.0000 C M 0 E 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 (1.8V, 2.5V, 3.3V, 5V Compatible)
- 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)

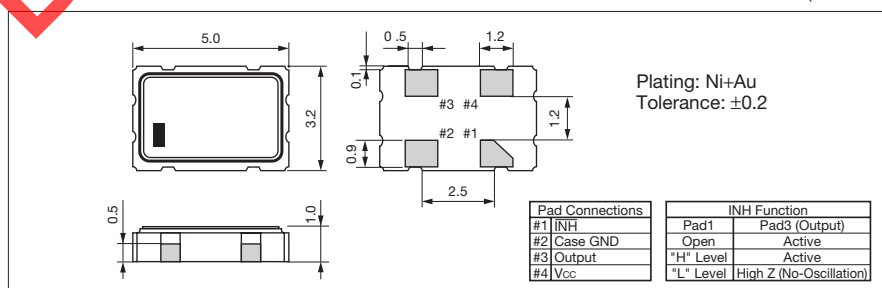
Specifications

| Item | Symbol | Conditions | Min. | Max. | Units | |
|---|--------------------|---|--|---------------------|-------|-------------------|
| Output Frequency Range | fo | | 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 | ×10 ⁻⁶ |
| | | | Op. Temp.: -10 to +70°C/ -40 to +85°C/ -40 to +105°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} | | -40 | +105 | °C | |
| Max. Supply Voltage | — | | -0.6 | +6.5 | V | |
| Supply Voltage | V _{CC} | | +1.6 | +5.5 | V | |
| Current Consumption (Loaded) (1.6<V _{CC} <2.0V) | I _{CC} | 1.8≤fo≤20MHz | — | 3.5 | mA | |
| | | 20<fo≤40MHz | — | 4.5 | | |
| | | 40<fo≤50MHz | — | 5.0 | | |
| Current Consumption (Loaded) (2.0<V _{CC} <2.8V) | I _{CC} | 1.8≤fo≤20MHz | — | 4.0 | mA | |
| | | 20<fo≤40MHz | — | 5.0 | | |
| | | 40<fo≤50MHz | — | 6.0 | | |
| Current Consumption (Loaded) (2.8<V _{CC} <3.63V) | I _{CC} | 1.8≤fo≤20MHz | — | 5.0 | mA | |
| | | 20<fo≤40MHz | — | 6.0 | | |
| | | 40<fo≤50MHz | — | 7.0 | | |
| Current Consumption (Loaded) (3.63<V _{CC} <5.5V) | I _{CC} | 1.8≤fo≤20MHz | — | 7.0 | mA | |
| | | 20<fo≤40MHz | — | 8.0 | | |
| | | 40<fo≤50MHz | — | 9.5 | | |
| Stand-by Current | I _{std} | | — | 10 | μA | |
| Symmetry | SYM | @50% V _{CC} | 45 | 55 | % | |
| | | 1.6<V _{CC} <2V | — | 8 | | |
| | | 2<V _{CC} <2.8V | — | 7 | | |
| | | 2.8<V _{CC} <3.63V | — | 6 | | |
| | | 4.5<V _{CC} <5.5V | — | 5 | | |
| Low Level Output Voltage | V _{OL} | I _{OL} =4mA | — | 10% V _{CC} | V | |
| High Level Output Voltage | V _{OH} | I _{OH} =-4mA | 90% V _{CC} | — | V | |
| Output Load | L _{CMOS} | 1.6≤V _{CC} ≤5.5V | — | 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 Wavecrest SIA-3000 | 1.8≤fo≤40MHz | — | 8 | ps |
| | | | 40<fo≤50MHz | — | 5 | |
| Peak to Peak Jitter | J _{PK-PK} | Measured with Wavecrest SIA-3000 | 1.8≤fo≤40MHz | — | 80 | ps |
| | | | 40<fo≤50MHz | — | 50 | |

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)

