

CMOS/ 1.8V to 5.0V/ 5.0×3.2mm



RoHS Compliant

Features

- Wide operating voltage range 1.6 to 5.5V
- $\pm 25 \times 10^{-6}$ available
- Highly reliable with seam welding
- Miniature ceramic package
- CMOS output

Table 1

| Freq. Code | Tol. $\times 10^{-6}$ | Operating Temperature Range (°C) | Note |
|------------|-----------------------|----------------------------------|--|
| 0 | ± 50 | | Standard specifications |
| S | ± 30 | -10 to +70 | Please contact us for available frequencies. |
| U | ± 25 | | |
| F | ± 100 | -40 to +85 | |
| G | ± 50 | -40 to +105 | |
| 6 | ± 50 | -40 to +105 | |

How to Order

KC5032A 25.0000 C M E 00
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
 - 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 Individual Specification (STD Specification is "00")
- Packaging (Tape & Reel 1000 pcs./ reel)

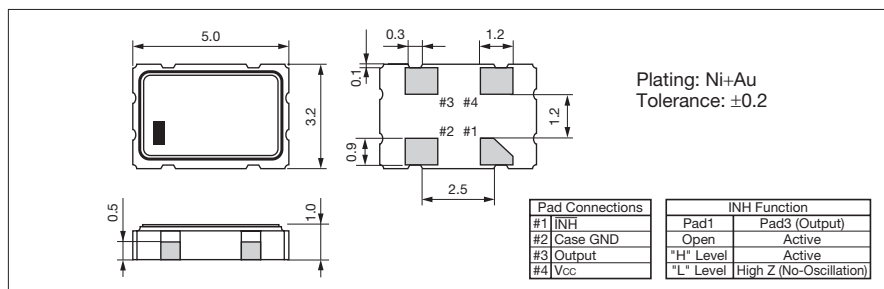
Specifications

| 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 | $\times 10^{-6}$ |
| | | | Op. Temp.: -10 to +70°C/ -40 to +85°C/ -40 to +105°C | -50 | +50 | |
| | | | Op. Temp.: -10 to +70°C | -30 | +30 | |
| Storage Temperature Range | T _{stg} | | -55 | +125 | °C | |
| Operating Temperature Range | T _{use} | Standard Specification | -10 | +70 | °C | |
| | | Extend (Option) | -40 | +85 | | |
| Max. Supply Voltage | — | | -40 | +105 | | |
| Supply Voltage | V _{CC} | | -0.6 | +6.5 | 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 | | |
| Rise/ Fall Time (10% V _{CC} to 90% V _{CC} Maximum Loaded) | tr/ tf | 2<V _{CC} ≤2.8V | — | 7 | ns | |
| | | 2.8<V _{CC} ≤3.63V | — | 6 | | |
| | | 4.5≤V _{CC} ≤5.5V | — | 5 | | |
| | | | — | 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.

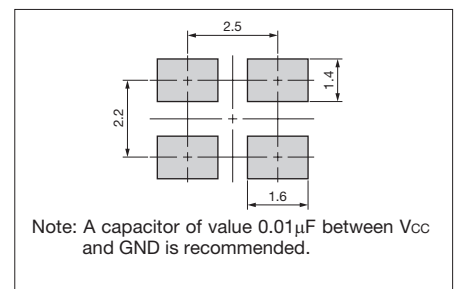
Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)



Mouser Electronics

Authorized Distributor

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