

Clock Oscillators Surface Mount Type KC2520B-C2 Series



CMOS/ 2.5V, 3.3V Compatible/ 2.5×2.0mm



Ph Free

RoHS Compliant

Features

- Miniature ceramic package
2.5 (L) × 2.0 (W) × 0.7 (H) mm (Typ.)
- Highly reliable with seam welding
- CMOS output
- Supply voltage $V_{CC} = 2.5V/ 3.3V$ Compatible
- Low Power Supply Consumption
- Wide Operating Voltage Range 2.25 to 3.63V

Table 1

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

How to Order

KC2520B 25.0000 C 2 0 E 00
① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (2.5×2.0mm SMD)
- ② Output Frequency
- ③ Output Type (CMOS)
- ④ Supply Voltage (2.5V, 3.3V Compatible)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ Enable Function (45/ 55%, Stand-by)
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 2000 pcs./ reel)

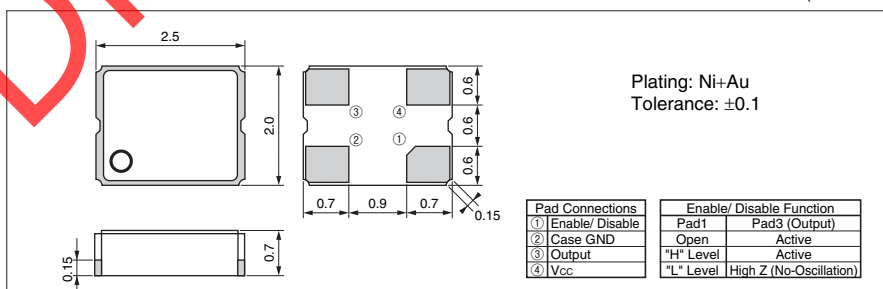
Specifications

| Item | Symbol | Conditions | Min. | Max. | Units | |
|---|------------------|---|---------------------------------------|---------------------|-------|------------------|
| Output Frequency Range | Fo | | 1.5 | 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 | +6.0 | V | |
| Supply Voltage | V _{CC} | Freq. Tol.Code: 0, S, F, U, G | 2.25 | 3.63 | V | |
| Current Consumption (Maximum Loaded) | I _{CC} | 1.5 ≤ Fo ≤ 24MHz | — | 3 | mA | |
| | | 24 < Fo ≤ 40MHz | — | 4 | | |
| | | 40 < Fo ≤ 50MHz | — | 5 | | |
| 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 | | — | 5 | nS | |
| 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 | CL | 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} | | — | 100 | nS | |
| Enable Time | t _{ena} | | — | 5 | mS | |
| Start-up Time | t _{st} | @ Minimum operation voltage to be 0 sec. | — | 10 | mS | |

Note: All electrical characteristics are defined at the maximum load and operating temperature range.
Please contact us for inquiries about operating temperature range, available frequencies and other conditions.

Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)

