

Clock Oscillators Surface Mount Type KC2520B-C1 Series



CMOS/ 1.8V, 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 $V_{CC}=1.8V/2.5V/3.3V$
Compatible Low Power Supply Consumption
- Wide Operating Voltage Range 1.6 to 3.63V

Table 1

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

How to Order

KC2520B 25.0000 C 1 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 (1.8V, 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

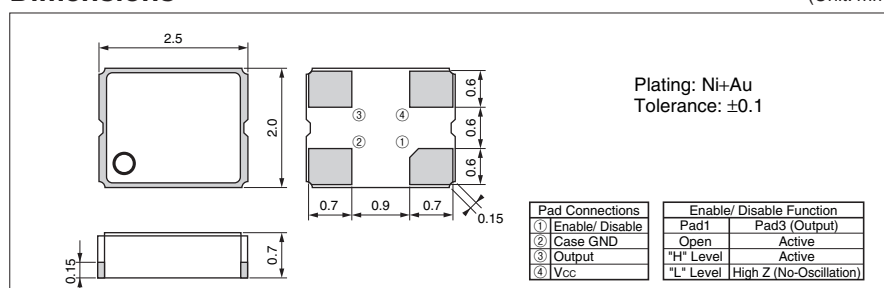
Item	Symbol	Conditions		Min.	Max.	Units
Output Frequency Range	f _o			1.5	50	MHz
Frequency Tolerance	f _{tol}	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration	Op. Temp.: -40 to +85°C	-100	+100	×10 ⁻⁶
			Op. Temp.: -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	V
Supply Voltage	V _{CC}	Freq. Tol.Code: 0, S, U, F, G		1.6	3.63	V
Current Consumption (Maximum Loaded/ 1.6≤V _{DD} ≤2.0V)	I _{CC}	1.5≤f _o ≤24MHz		—	2.5	mA
		24<f _o ≤40MHz		—	3.5	
		40<f _o ≤50MHz		—	4.5	
1.5≤f _o ≤24MHz		—	3			
24<f _o ≤40MHz		—	4.5			
40<f _o ≤50MHz		—	5			
Current Consumption (Maximum Loaded/ 2.0<V _{DD} ≤2.8V)		1.5≤f _o ≤24MHz		—	3.5	
		24<f _o ≤40MHz		—	5	
		40<f _o ≤50MHz		—	6	
Current Consumption (Maximum Loaded/ 2.8<V _{DD} ≤3.63V)			—	6		
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	1.6≤V _{DD} ≤2.0V		—	6.5	nS
		2.0<V _{DD} ≤2.8V		—	5	
		2.8<V _{DD} ≤3.63V		—	4.5	
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
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}			—	100	nS
Enable Time	t _{ena}			—	5	mS
Start-up Time	t _{str}	@ 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 inquiry about operating temperature range, available frequencies and other conditions.

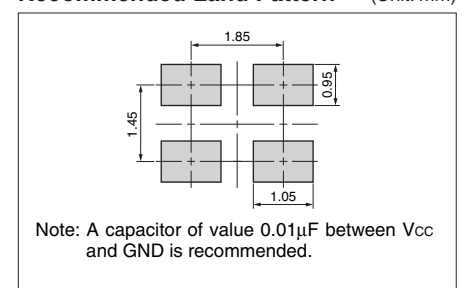
Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)



Mouser Electronics

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AVX:

[KC2520B48.0000C2GE00](#)