

Clock Oscillators Surface Mount Type

KC5032A-CM Series



CMOS/ 1.8V ~ 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. Tol. Code	$\times 10^{-6}$	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	-40 to +105	
6	± 50		

How to Order

KC5032A 25.0000 C M 0 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 Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

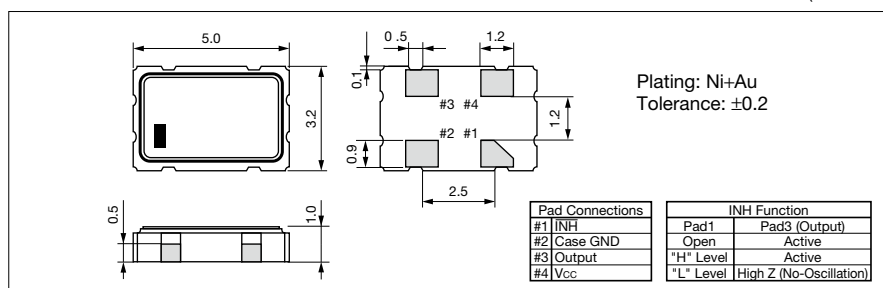
Specifications

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 Op. Temp.: -10 to +70°C/ -40 to +85°C/ -40 to +105°C Op. Temp.: -10 to +70°C Op. Temp.: -10 to +70°C	-100 +100 -50 +50 -30 +30 -25 +25	$\times 10^{-6}$
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)		1.8≤fo≤20MHz	—	4.0	
		20<fo≤40MHz	—	5.0	
		40<fo≤50MHz	—	6.0	
Current Consumption (Loaded) (2.8<V _{CC} ≤3.63V)		1.8≤fo≤20MHz	—	5.0	
		20<fo≤40MHz	—	6.0	
		40<fo≤50MHz	—	7.0	
Current Consumption (Loaded) (3.63<V _{CC} ≤5.5V)		1.8≤fo≤20MHz	—	7.0	
		20<fo≤40MHz	—	8.0	
		40<fo≤50MHz	—	9.5	
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	1.6≤V _{CC} ≤2V 2<V _{CC} ≤2.8V 2.8<V _{CC} ≤3.63V 4.5≤V _{CC} ≤5.5V	— — — —	8 7 6 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	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}		—	15	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 40<fo≤50MHz	— 5	ps
Peak to Peak Jitter	J _{PK-PK}	Measured with Wavecrest SIA-3000	1.8≤fo≤40MHz 40<fo≤50MHz	— 80 50	ps

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.

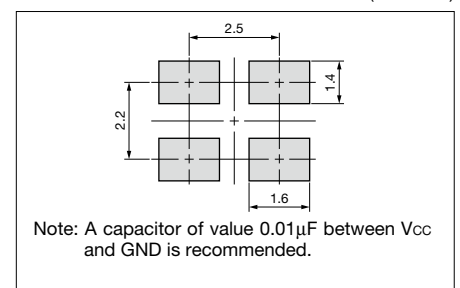
Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)



Mouser Electronics

Authorized Distributor

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AVX:

<u>KC5032A7.37280CMGE00</u>	<u>KC5032A30.0000CMGE00</u>	<u>KC5032A10.0000CMGE00</u>	<u>KC5032A32.0000CMGE00</u>
<u>KC5032A1.84320CMGE00</u>	<u>KC5032A20.0000CMGE00</u>	<u>KC5032A27.0000CMGE00</u>	<u>KC5032A16.0000CMGE00</u>
<u>KC5032A3.68640CMGE00</u>	<u>KC5032A25.0000CMGE00</u>	<u>KC5032A24.5760CMGE00</u>	<u>KC5032A50.0000CMGE00</u>
<u>KC5032A32.7680CMGE00</u>	<u>KC5032A8.00000CMGE00</u>	<u>KC5032A12.0000CMGE00</u>	<u>KC5032A40.0000CMGE00</u>
<u>KC5032A4.00000CMGE00</u>	<u>KC5032A48.0000CMGE00</u>	<u>KC5032A14.3182CMGE00</u>	