

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)

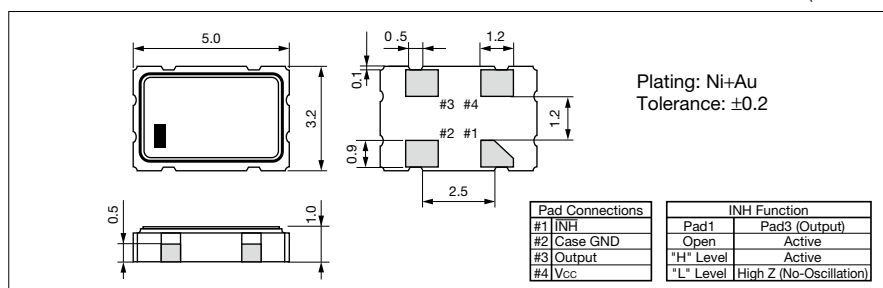
Specifications

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	-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	Vcc			+1.6	+5.5	V
Current Consumption (Loaded) (1.6≤Vcc≤2.0V)	Icc	1.8≤fo≤20MHz	—	3.5	mA	
		20<fo≤40MHz	—	4.5		
		40<fo≤50MHz	—	5.0		
Current Consumption (Loaded) (2.0<Vcc≤2.8V)		1.8≤fo≤20MHz	—	4.0		
		20<fo≤40MHz	—	5.0		
		40<fo≤50MHz	—	6.0		
Current Consumption (Loaded) (2.8<Vcc≤3.63V)		1.8≤fo≤20MHz	—	5.0		
		20<fo≤40MHz	—	6.0		
		40<fo≤50MHz	—	7.0		
Current Consumption (Loaded) (3.63<Vcc≤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% Vcc	45	55	%	
Rise/ Fall Time (10% Vcc to 90% Vcc Maximum Loaded)	tr/ tf	1.6≤Vcc≤2V	—	8	ns	
		2<Vcc≤2.8V	—	7		
		2.8<Vcc≤3.63V	—	6		
		4.5≤Vcc≤5.5V	—	5		
Low Level Output Voltage	VOL	IoL = 4mA	—	10% Vcc	V	
High Level Output Voltage	VOH	IoH = -4mA	90% Vcc	—	V	
Output Load	L_CMOS	1.6≤Vcc≤5.5V	—	15	pF	
Input Voltage Range	VIN			0	Vcc	V
Low Level Input Voltage	VIL			—	30% Vcc	V
High Level Input Voltage	VIH			70% Vcc	—	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	JSigma	Measured with Wavecrest SIA-3000	1.8≤fo≤40MHz	—	8	ps
			40<fo≤50MHz	—	5	
Peak to Peak Jitter	JPK-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.

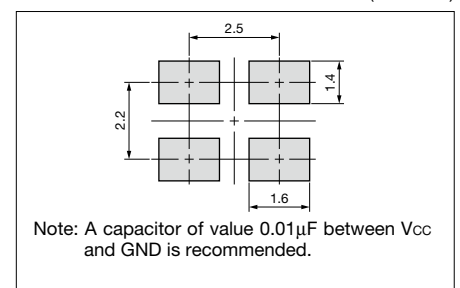
Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)



Mouser Electronics

Authorized Distributor

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KYOCERA AVX:

<u>KC5032A150.000C20E00</u>	<u>KC5032A7.37280CMGE00</u>	<u>KC5032A30.0000CMGE00</u>	<u>KC5032A10.0000CMGE00</u>
<u>KC5032A32.0000CMGE00</u>	<u>KC5032A1.84320CMGE00</u>	<u>KC5032A150.000C2GE00</u>	<u>KC5032A100.000C1GE00</u>
<u>KC5032A3.68640CM0E00</u>	<u>KC5032A64.0000C10E00</u>	<u>KC5032A12.0000CM0E00</u>	<u>KC5032A125.000C10E00</u>
<u>KC5032A24.0000CM0E00</u>	<u>KC5032A25.0000CM0E00</u>	<u>KC5032A20.0000CMGE00</u>	<u>KC5032A60.0000C10E00</u>
<u>KC5032A48.0000CM0E00</u>	<u>KC5032A4.00000CM0E00</u>	<u>KC5032A27.0000CMGE00</u>	<u>KC5032A8.00000CM0E00</u>
<u>KC5032A14.7456CM0E00</u>	<u>KC5032A16.0000CMGE00</u>	<u>KC5032A3.68640CMGE00</u>	<u>KC5032A25.0000CMGE00</u>
<u>KC5032A24.5760CM0E00</u>	<u>KC5032A24.5760CMGE00</u>	<u>KC5032A50.0000CMGE00</u>	<u>KC5032A44.0000CM0E00</u>
<u>KC5032A14.3182CM0E00</u>	<u>KC5032A30.0000CM0E00</u>	<u>KC5032A100.000C10E00</u>	<u>KC5032A20.0000CM0E00</u>
<u>KC5032A16.0000CM0E00</u>	<u>KC5032A32.7680CMGE00</u>	<u>KC5032A8.00000CMGE00</u>	<u>KC5032A50.0000CM0E00</u>
<u>KC5032A12.0000CMGE00</u>	<u>KC5032A19.2000CM0E00</u>	<u>KC5032A40.0000CM0E00</u>	<u>KC5032A40.0000CMGE00</u>
<u>KC5032A4.00000CMGE00</u>	<u>KC5032A29.4989CM0E00</u>	<u>KC5032A32.7680CM0E00</u>	<u>KC5032A66.6667C10E00</u>
<u>KC5032A80.0000C10E00</u>	<u>KC5032A27.0000CM0E00</u>	<u>KC5032A48.0000CMGE00</u>	<u>KC5032A14.3182CMGE00</u>