



Clock Oscillators Surface Mount Type KC7050C-C3 Series (K50-3C Series)

CMOS / 3.3V / 7.0×5.0mm



Pb Free

RoHS Compliant

Features

- Miniature ceramic package
- Highly reliable with seam welding
- CMOS output
- Supply voltage $V_{DD}=3.3V$
- $\pm 25 \times 10^{-6}$ available

Table 1

Freq. Tol.		Operating Temperature Range (°C)	Note
Code	$\times 10^{-6}$		
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

KC7050C 25.0000 C 3 0 E 00
① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (7.0×5.0mm SMD)
- ② Output Frequency
- ③ Output Type (CMOS)
- ④ Supply Voltage (3.3V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ Enable Function
(E: 45/55%, Stand-by) (D: 45/55%, Disable)
- ⑦ Customer Special Model Suffix
(STD Specification is "00")

Packaging (Tape & Reel 1000pcs./reel)

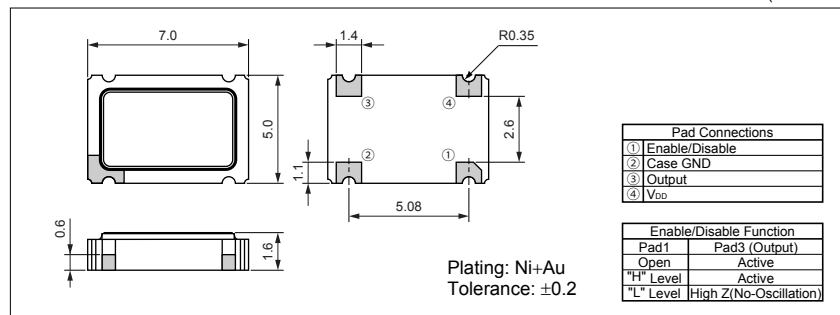
Specifications

Item	Symbol	Conditions		Min.	Max.	Units
Output Frequency Range	F _o			1.5	80	MHz
Frequency Tolerance	F _{tol}	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1year @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/ -40 to +85°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	+7	V
Supply Voltage	V _{DD}	Freq. Tol.Code: 0, S, F		2.97	3.63	V
		Freq. Tol.Code: U, G		3.14	3.46	
Current Consumption (Maximum Loaded)	I _{DD}	1.5≤F _o ≤20MHz		—	10	mA
		20<F _o ≤40MHz		—	15	
		40<F _o ≤60MHz		—	20	
		60<F _o ≤80MHz		—	30	
Stand-by/Disable Current	I _{std} /I _{dis}	1.5≤F _o ≤32MHz (Stand-by Function)		—	10	μA
		32<F _o ≤50MHz (Disable Function)		—	15	mA
		50<F _o ≤80MHz (Stand-by Function)		—	10	μA
Symmetry	SYM	@50% V _{DD}		45	55	%
Rise/Fall Time (10% V _{DD} to 90% V _{DD} Maximum Loaded)	Tr/Tf	1.5≤F _o ≤26MHz		—	10	nS
		26<F _o ≤45MHz		—	8	
		45<F _o ≤80MHz		—	5	
Output Voltage-"L"	V _{OL}	I _{OL} =8mA		—	10% V _{DD}	V
Output Voltage-"H"	V _{OH}	I _{OH} =-8mA		90% V _{DD}	—	V
Output Load	L _{CMOS}	CMOS Output		—	15	pF
Input Voltage Range	V _{IN}			0	V _{DD}	V
Input Voltage-"L"	V _{IL}			—	30% V _{DD}	V
Input Voltage-"H"	V _{IH}			70% V _{DD}	—	V
Disable Time	—			—	150	nS
Enable Time	—	1.5≤F _o ≤32MHz (Stand-by Function)		—	5	mS
		32<F _o ≤50MHz (Disable Function)		—	150	nS
		50<F _o ≤80MHz (Stand-by Function)		—	5	mS
Start-up Time	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.

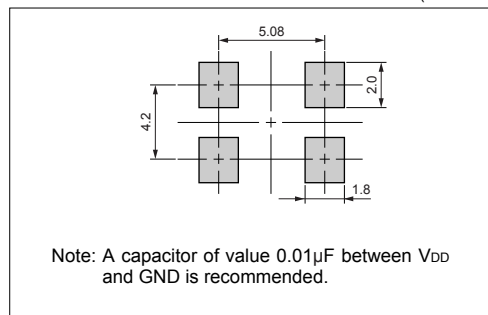
Dimensions

(Unit : mm)



Recommended Land Pattern

(Unit : mm)



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