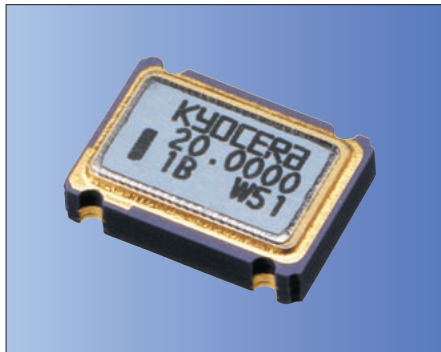


# Clock Crystal Oscillators Surface Mount Type K50-3C Series



CMOS/ 3.3V/ 7.0×5.0mm

**This product is NOT recommended for new designs.**



Pb Free

RoHS Conforming

## Features

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

## How to Order

K50-3C 0 - S E 25.0000  
① ② ③ ④ ⑤

- ① Type(7×5 SMD, 3.3V)
- ② Frequency Stability Code(See Table1)
- ③ Duty Ratio(S: 45% to 55% STD)
- ④ Enable/Disable Function(STD)
- ⑤ Oscillation Frequency(Ex.: 25.0000MHz)

Packaging(Tape & Reel 1Kpcs/reel)

Table 1

Stability Code	Stability (ppm)	$T_{OPR}$ (°C)	Note
S	$\pm 30$	-10 to +70 (Standard)	With only certain frequencies
U	$\pm 25$	-10 to +70 (Standard)	With only certain frequencies
F	$\pm 100$	-40 to +85 (Extend)	With only certain frequencies
G	$\pm 50$	-40 to +85 (Extend)	With only certain frequencies

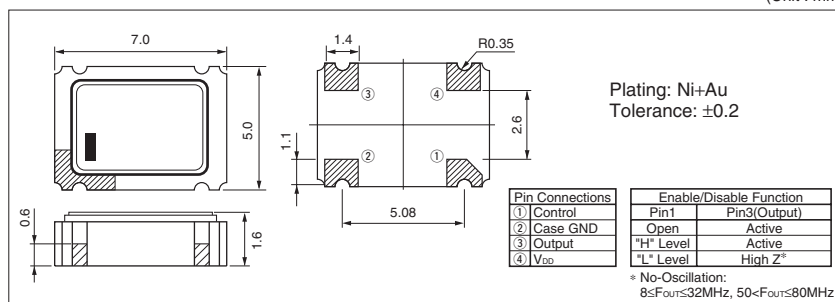
## Specifications

Item	Symbol	Conditions	Min.	Max.	Units
Output Frequency Range	$F_{OUT}$		1.5	80	MHz
Frequency Stability	$F_{SBY}$	Overall conditions: initial tolerance, operating temperature range, rated power supply voltage change, load change, aging(1year @25°C), shock and vibration	-25 -30 -50	+25 +30 +50	ppm
Storage Temperature Range	$T_{STG}$		-55	+125	°C
Operating Temperature Range	$T_{OPR}$	Standard Extend(option)	-10 -40	+70 +85	
Max. Supply Voltage	—		-0.5	7.0	Volt
Supply Voltage	$V_{DD}$	Stability: $\pm 50ppm, \pm 30ppm, \pm 100ppm$ (Ext Temp) Stability: $\pm 25ppm, \pm 50ppm$ (Ext Temp)	2.97 3.14	3.63 3.46	
Current Consumption (Maximum Loaded)	$I_{DD}$	$1.5 \leq F_{OUT} \leq 20MHz$ $20 < F_{OUT} \leq 40MHz$ $40 < F_{OUT} \leq 60MHz$ $60 < F_{OUT} \leq 80MHz$	— — — —	10 15 20 30	mA
Standby/Disable Current	$I_{ST}/I_{DE}$	$8 \leq F_{OUT} \leq 32MHz$ (Standby Function) $32 < F_{OUT} \leq 50MHz$ (Disable Function) $50 < F_{OUT} \leq 80MHz$ (Standby Function)	— — —	10 15 10	
Duty Ratio(Symmetry)	SYM	@ 50% $V_{DD}$	45	55	%
Rise/Fall Time (10% $V_{DD}$ to 90% $V_{DD}$ Maximum Loaded)	$T_r/T_f$	$8 \leq F_{OUT} \leq 26MHz$ $26 < F_{OUT} \leq 45MHz$ $45 < F_{OUT} \leq 80MHz$	— — —	10 8 5	nS
Output Voltage-"L"	$V_{OL}$	$I_{OL}=8mA$	—	10% $V_{DD}$	
Output Voltage-"H"	$V_{OH}$	$I_{OH}=8mA$	90% $V_{DD}$	—	Volt
Output Load	CL	CMOS	—	15	
Input Voltage Range	$V_{IN}$		0	$V_{DD}$	Volt
Input Voltage-"L"	$V_{IL}$		—	30% $V_{DD}$	
Input Voltage-"H"	$V_{IH}$		70% $V_{DD}$	—	Volt
Output Disable Time	—		—	150	
Output Enable Time	—	$8 \leq F_{OUT} \leq 32MHz$ $32 < F_{OUT} \leq 50MHz$ $50 < F_{OUT} \leq 80MHz$	— — —	5 150 5	mS
Start-up Time	ST	@ Minimum operating Voltage to be 0sec.	—	10	mS

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

## Dimensions

(Unit : mm)



## Recommended Land Pattern

(Unit : mm)

