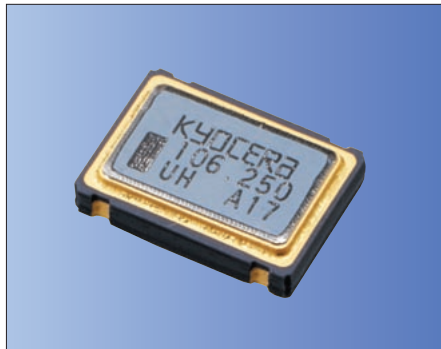


Clock Crystal Oscillators Surface Mount Type K50H-3C Series



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 $V_{DD}=3.3V$
- Internal Bypass Capacitor
- Low Jitter
- $\pm 25\text{ppm}$ available

Table 1

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

How to Order

K50H-3C 0 - S E 125.000
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.: 125.000MHz)

Packaging(Tape & Reel 1,000pcs/reel)

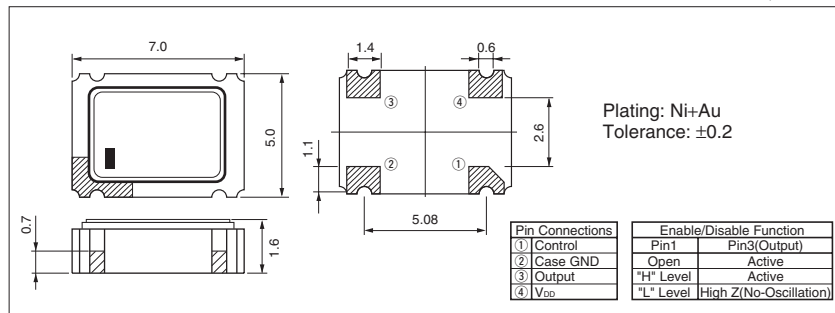
Specifications

Item	Symbol	Conditions	Min.	Max.	Units
Output Frequency Range	F_{OUT}		50	170	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	°C
Max. Supply Voltage	—		-0.5	7.0	Volt
Supply Voltage	V_{DD}	Stability: $\pm 50\text{ppm}$, $\pm 100\text{ppm}$ (Ext Temp) Stability: $\pm 25\text{ppm}$, $\pm 30\text{ppm}$, $\pm 50\text{ppm}$ (Ext Temp)	2.97 3.14	3.63 3.46	Volt
Current Consumption (Maximum Loaded)	I_{DD}	50 $\leq F_{OUT} \leq 85\text{MHz}$ 85 $< F_{OUT} \leq 100\text{MHz}$ 100 $< F_{OUT} \leq 135\text{MHz}$ 135 $< F_{OUT} \leq 160\text{MHz}$	— — — —	30 40 50 60	mA
Duty Ratio(Symmetry)	I_{ST}	Standby Function	—	10	μA
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	50 $\leq F_{OUT} < 100\text{MHz}$ 100 $\leq F_{OUT} \leq 160\text{MHz}$	20% V_{DD} to 80% V_{DD} 10% V_{DD} to 90% V_{DD} 20% V_{DD} to 80% V_{DD} 10% V_{DD} to 90% V_{DD}	3.5 5.0 1.5 2.0	nS
Output Voltage-"L"	V_{OL}		—	10% V_{DD}	Volt
Output Voltage-"H"	V_{OH}		90% V_{DD}	—	Volt
Output Load	C_L	CMOS	—	15	pF
Input Voltage Range	V_{IN}		0	V_{DD}	Volt
Input Voltage-"L"	V_{IL}		—	30% V_{DD}	Volt
Input Voltage-"H"	V_{IH}		70% V_{DD}	—	Volt
Output Disable Time	—		—	5	mS
Output Enable Time	—		—	150	nS
Start-up Time	ST	@ Minimum operating Voltage to be 0sec.	—	10	mS
Deterministic Jitter pk-pk	DJ	Measured with "Wavecrest DTS-2079", VISI 6.3.1	—	2	psec
1Sigma jitter	1sigma		—	4	psec

Note: Please contact us for inquiries 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)

