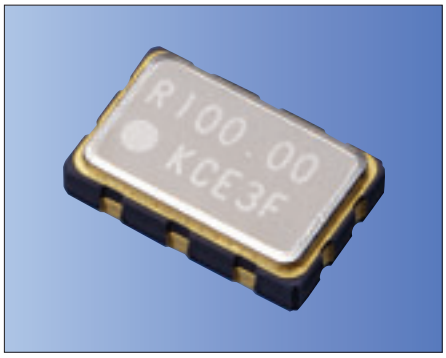
Clock Oscillators Surface Mount Type
KC5032P-L2/ KC5032P-L3 Series

KYOCERA

LVDS/ 3.3V or 2.5V/ 5.0×3.2mm



RoHS Compliant

Features

- Miniature ceramic package
- Highly reliable with seam welding
- LVDS output
- Supply voltage Vcc = 3.3V, 2.5V
- ±25×10^{-6} available
- Low Phase Noise

Table 1

Freq. Tol. Code	Freq. Tol. × 10^{-6}	Operating Temperature Range (°C)	Note
0	± 50	0 to +70	Standard specifications
S	± 30		Please contact us for available frequencies.
U	± 25		
F	±100	−40 to +85	
G	± 50		
6	± 50	−40 to +105	

How to Order

KC5032P 125.000 L □ □ J 00
① ② ③ ④ ⑤ ⑥ ⑦

① Series
② Output Frequency
③ Output Type (LVDS)
④ Supply Voltage (3 : 3.3V or 2 : 2.5V)
⑤ Frequency Tolerance (See Table 1)
⑥ Symmetry/ INH Function
J : 45/ 55%, Stand-by
⑦ Individual Specification
(STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

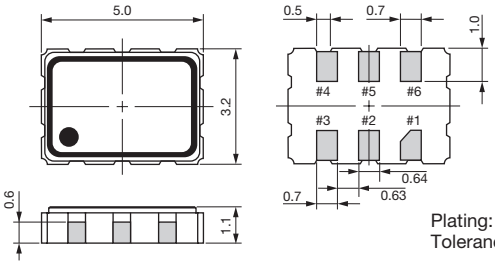
Specifications

Item	Symbol	Conditions	Specifications KC5032P-L2	Specifications KC5032P-L3	Units
Output Frequency Range[Note1]	fo		25 to 175		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	±50/ −40 to +105°C		ppm
			±100/ −40 to +85°C		
			±50/ −40 to +85°C		
			±50/ 0 to +70°C		
			±30/ 0 to +70°C		
			±25/ 0 to +70°C		
Storage Temperature Range	T_stg		−55 to +125		°C
Operating Temperature Range	T_use	Standard Specifications	0 to +70/ −40 to +85		°C
		Extend (Option)	−40 to +105		
Max. Supply Voltage	—		−0.5 to +5.0		V
Supply Voltage	Vcc		+2.375 to +2.625	+2.97 to +3.63	V
Current Consumption	Icc		50 max.		mA
Stand-by Current	I_std		20 max.		µA
Symmetry	SYM	100ohm @crossing point	50±5		%
Rise/ Fall Time (20% Vcc to 80% Vcc Maximum Loaded)	tr/ tf	100ohm	0.6 max.		ns
Low Level Output Voltage[Note2]	VOL		0.9 min. Typ.:1.1		V
High Level Output Voltage[Note2]	VOH		1.6 max. Typ.:1.43		V
Diffrentical Output Voltage[Note2]	VOD		247 to 454 Typ.:330		mV
Diffrentical Output Voltage Error[Note2]	dVOD	dVOD = ¦VOD1−VOD2¦	50 max.		mV
Offset Voltage	VOS		1.125 to 1.375		V
Offset Voltage Error	dVOS	dVOS = ¦VOS1−VOS2¦	50 max.		mV
Output Load	RL	LVDS Output	100		ohm
Input Voltage Range	VIN		0 to Vcc		V
Low Level Input Voltage	VIL		30% Vcc max.		V
High Level Input Voltage	VIH		70% Vcc min.		V
Disable Time	t_dis		200 max.		ns
Enable Time	t_ena		10 max.		ms
Start-up Time	t_str	@Minimum operating voltage to be 0 sec.	10 max.		ms
Deterministic Jitter	DJ	Measured with Wavecrest SIA-3000	2 max.		ps
1 Sigma Jitter	JSigma		4 max.		ps
Peak to Peak Jitter	JPK-PK		30 max.		ps
Phase Jitter	JPhase	@156.25MHz Vcc = 3.3V, BW : 12kHz to 20MHz	0.3 max.		ps

Note : All electrical characteristics are defined at the maximum load and operating temperature range.
Note1: Please contact us for inquiry about operating temperature range, available frequencies and other conditions.
Note2: DC characteristic

Dimensions

(Unit: mm)



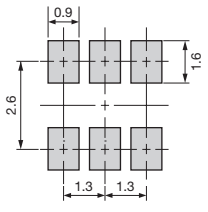
Plating: Ni+Au
Tolerance: ±0.2

Pad Connections	
#1	INH
#2	NC
#3	Case GND
#4	Output
#5	Complementary Output
#6	Vcc

INH Function	
Pad1	Pad4/ Pad5 (Output)
Open	Active
"H" Level	Active
"L" Level	High Z (No-Oscillation)

Recommended Land Pattern

(Unit: mm)



Note: A capacitor of value 0.01µF and 10µF Between Vcc and GND is recommended.