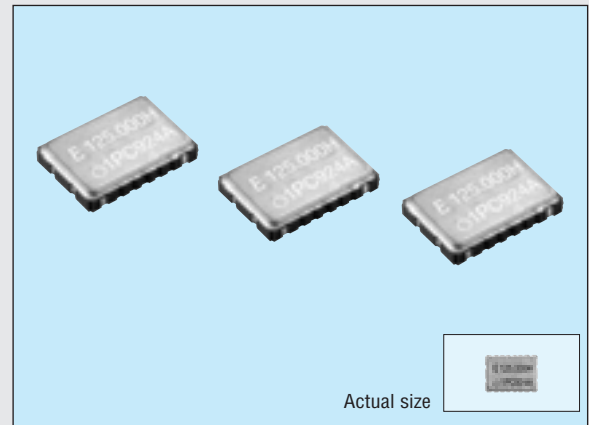


# LOW-JITTER CRYSTAL OSCILLATOR EG-2001CA

- Generates high frequency clock with fundamental mode.
- Very low jitter and low phase noise.
- Ceramic package with 1.4 mm Max. thickness.
- Excellent shock resistance and environmental capability.
- Low current consumption due to use of C-MOS technology.
- Provided with output enable function.



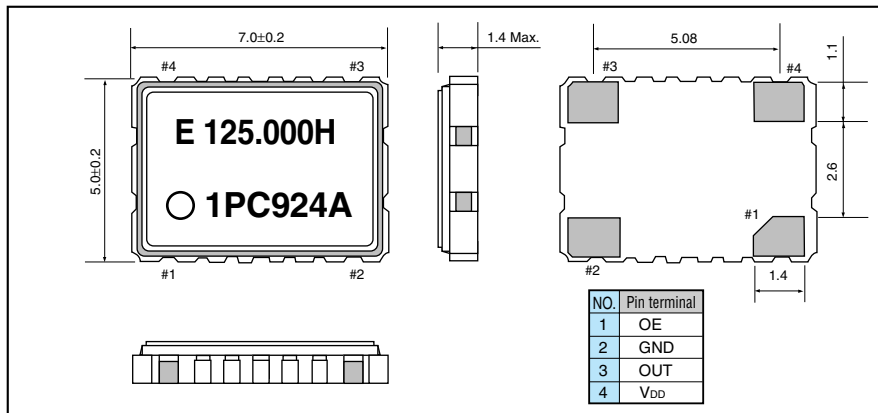
## Specifications (characteristics)

Item	Symbol	Specifications	Remarks
Output frequency range	$f_0$	106.2500 MHz to 166.0000 MHz	Please contact us for inquiries about the available frequency
Power source voltage	Max. supply voltage	$V_{DD-GND}$	-0.5 V to +7.0 V
	Operating voltage	$V_{DD}$	3.3 V $\pm$ 0.3 V
Temperature range	Storage temperature	$T_{STG}$	-55 °C to +100 °C
	Operating temperature	$T_{OPR}$	0 °C to +70 °C
Frequency stability	$\Delta f/f_0$	$\pm 100 \times 10^{-6}$ *	
Current consumption	$I_{OP}$	50 mA Max.	No load condition
Output disable current	$I_{OE}$	10 $\mu$ A Max.	OE=GND
Duty	C-MOS level	$tw/t$	45 % to 55 %
	TTL level		40 % to 60 %
Output voltage	$V_{OH}$	$V_{DD}-0.4$ V Min.	$I_{OH} = -8$ mA
	$V_{OL}$	0.4 V Max.	$I_{OL} = 8$ mA
Output load condition (fan out)	$C_L$	25 pF Max.	$f_0 \leq 135.0000$ MHz
		15 pF Max.	$f_0 > 135.0000$ MHz
Output enable/disable input voltage	$V_{IH}$	0.7 $V_{DD}$ Min.	OE
	$V_{IL}$	0.3 $V_{DD}$ Max.	OE
Output rise time	C-MOS level	$t_{TLH}$	2 ns Max.
	TTL level		1.5 ns Max.
Output fall time	C-MOS level	$t_{THL}$	2 ns Max.
	TTL level		1.5 ns Max.
Oscillation start up time	$t_{OSC}$	10 ms Max.	Time at 3.0 V to be 0 s
Deterministic Jitter	$t_{DJ}$	5.0 ps Typ.	Peak to peak
Random Jitter	$t_{RJ}$	3.0 ps Typ.	rms
Accumulated Jitter	$t_{JACC}$	4.0 ps Typ.	Long term

\*Frequency stability is including variation in reflow soldering drift, operating temperature range, operating voltage range, load change and Aging.

## External dimensions

(Unit: mm)



## Recommended soldering pattern

(Unit: mm)

