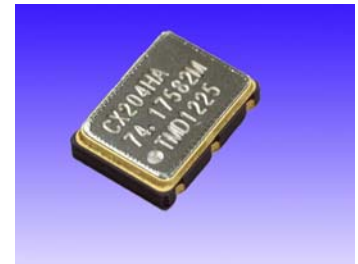


# - 7.0x5.0mm SMD VCXO CMOS OUTPUT -

## Type : CX204 series

RoHS

- Frequency : 10MHz to 160MHz
- CMOS Output, E/D Function
- Wide pulling range ( +/-150 ppm typ@74.175MHz )
- AT cut fundamental crystal and seam weld



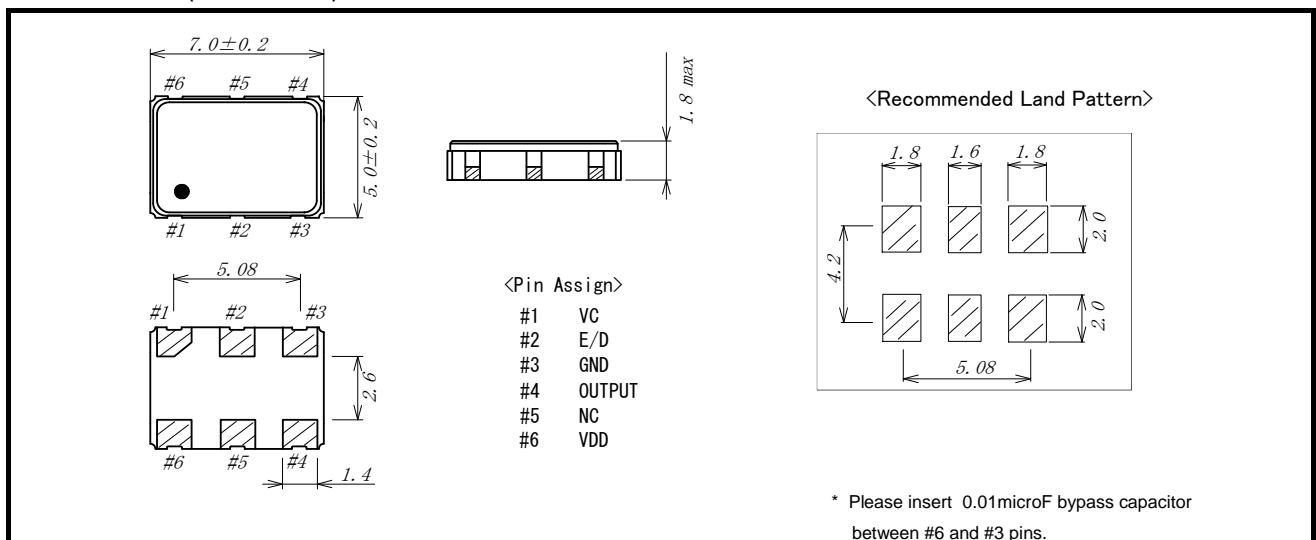
Output Level	CMOS
Supply Voltage	+3.3V <sub>dd</sub> +/-5%
Size	7.0 × 5.0 × 1.8mm

### - Electrical Specifications -

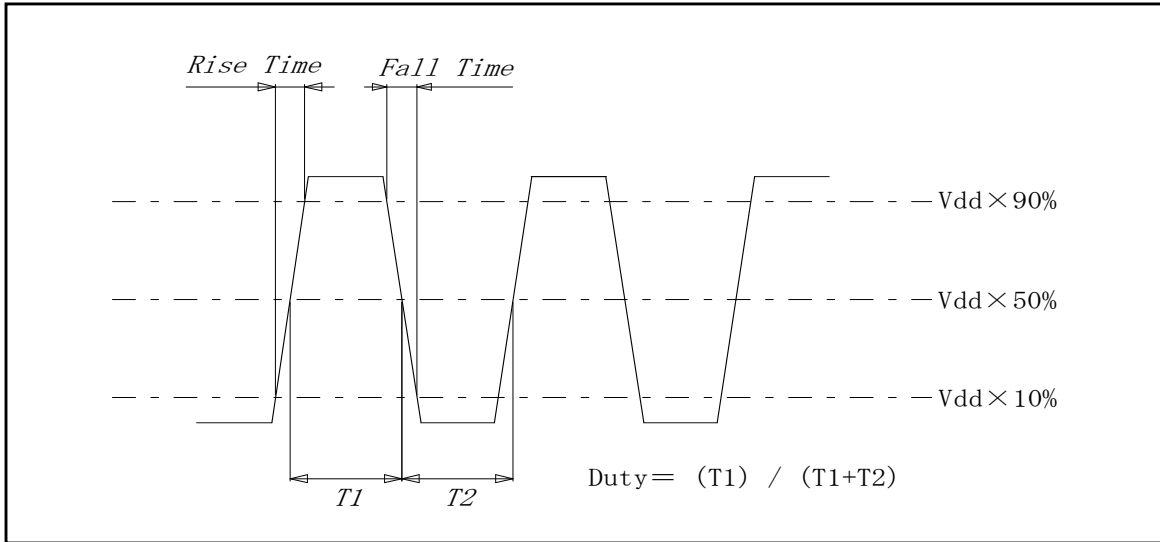
Item	Condition	MIN	TYP	MAX	Unit
Frequency Range		10	-	160	MHz
Supply voltage	+3.3V +/- 5%	+3.135	-	+3.465	V
Frequency Stability ( Including Ope.Temp. Aging of 1st year )	Option :G	-	-	+/-20	PPM
	Option :A	-	-	+/-25	PPM
	Option :H	-	-	+/-30	PPM
	Option :B	-	-	+/-50	PPM
Operating Temperature	Option : S	0	-	+70	deg.c
	Option : A	-20	-	+70	deg.c
	Option : B	-40	-	+85	deg.c
	Option : C	-10	-	+70	deg.c
Pulling Range	VC = +1.65V +/-1.5V @74.175MHz	+/-100	+/-150	-	PPM
Control Voltage	+1.65V +/-1.5V	+0.15	-	+3.15	V
VC Characteristics:	-	Positive			-
Input Impedance	Vcon to Gnd	100k	-	-	Ohm
Modulation bandwidth	3dB max / Ref@1KHz	10k	-	-	Hz
Storage Temperature	Parts only	-50	-	+125	deg.c
Output Level	VOH	V <sub>dd</sub> -0.4	-	-	V
	VOL	-	-	0.4	V
Rise & Fall Time	10MHz to 59.9MHz / CL=15pF	-	-	8.0	ns
	from 60MHz / CL=15pF	-	-	5.0	ns
Duty	@ 1/2 V <sub>dd</sub>	45	-	55	%
Current	CL=15pF	-	-	15	mA
Output Load	CMOS	15			pF
RMS Jitter	12kHz to 20MHz Offset @74.175MHz	-	0.13	-	ps
Start-up Time		-	-	10	ms
E/D Function	#2pin = Hi or Open : Enable / Low : Disable				

\* Regarding to the not developed frequency, it will take long time for 1st delivery.

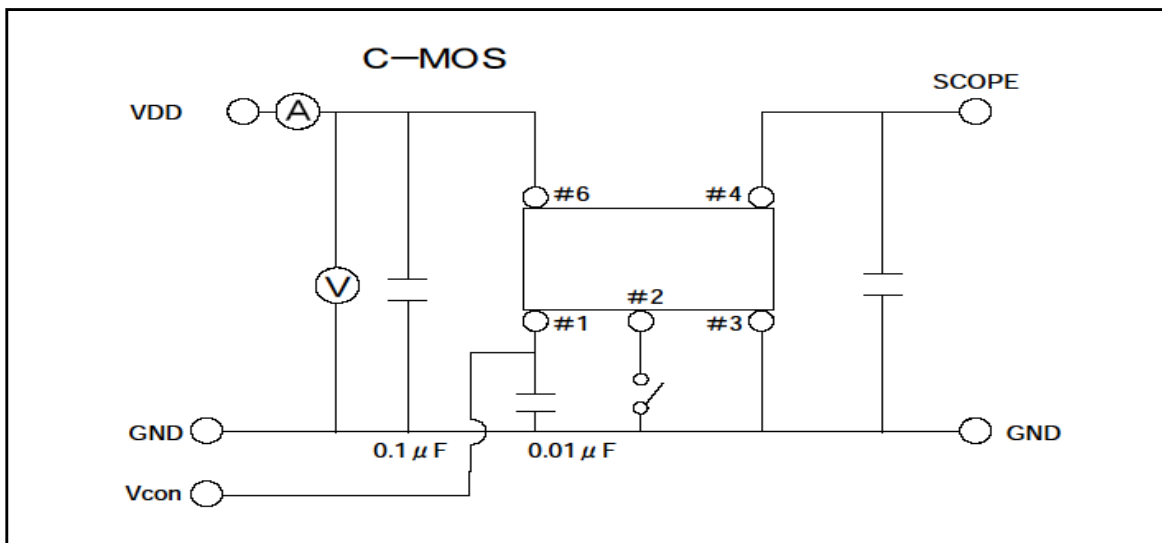
### ● Dimension ( Unit: in mm )



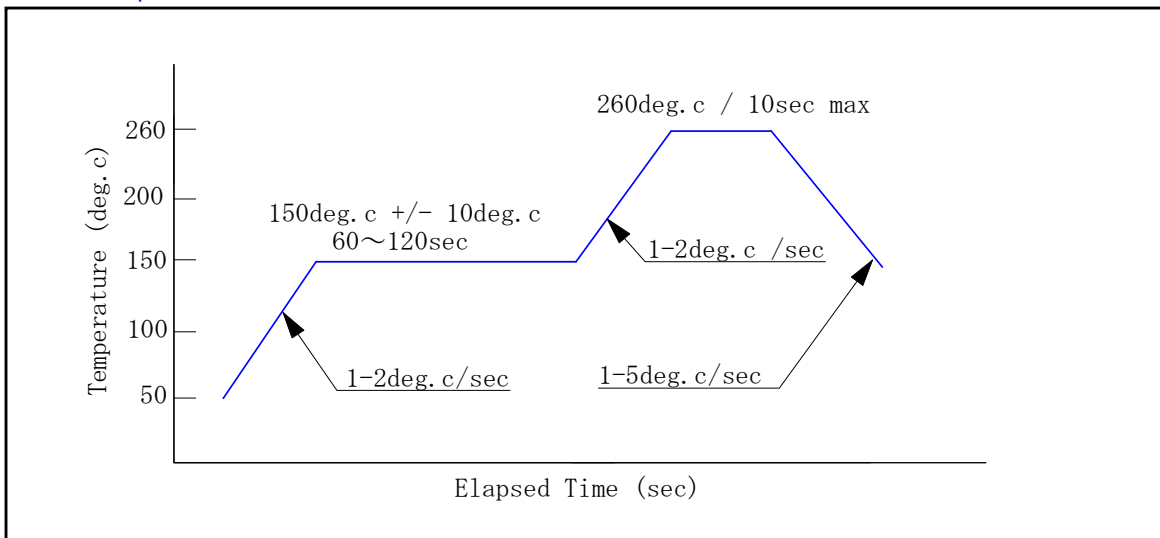
● Wave Form



● Test Circuit

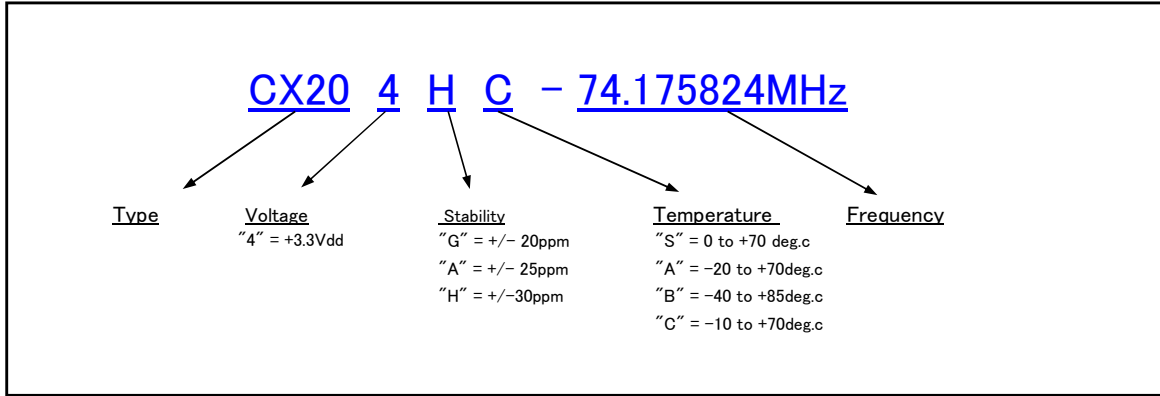


● Reflow profile

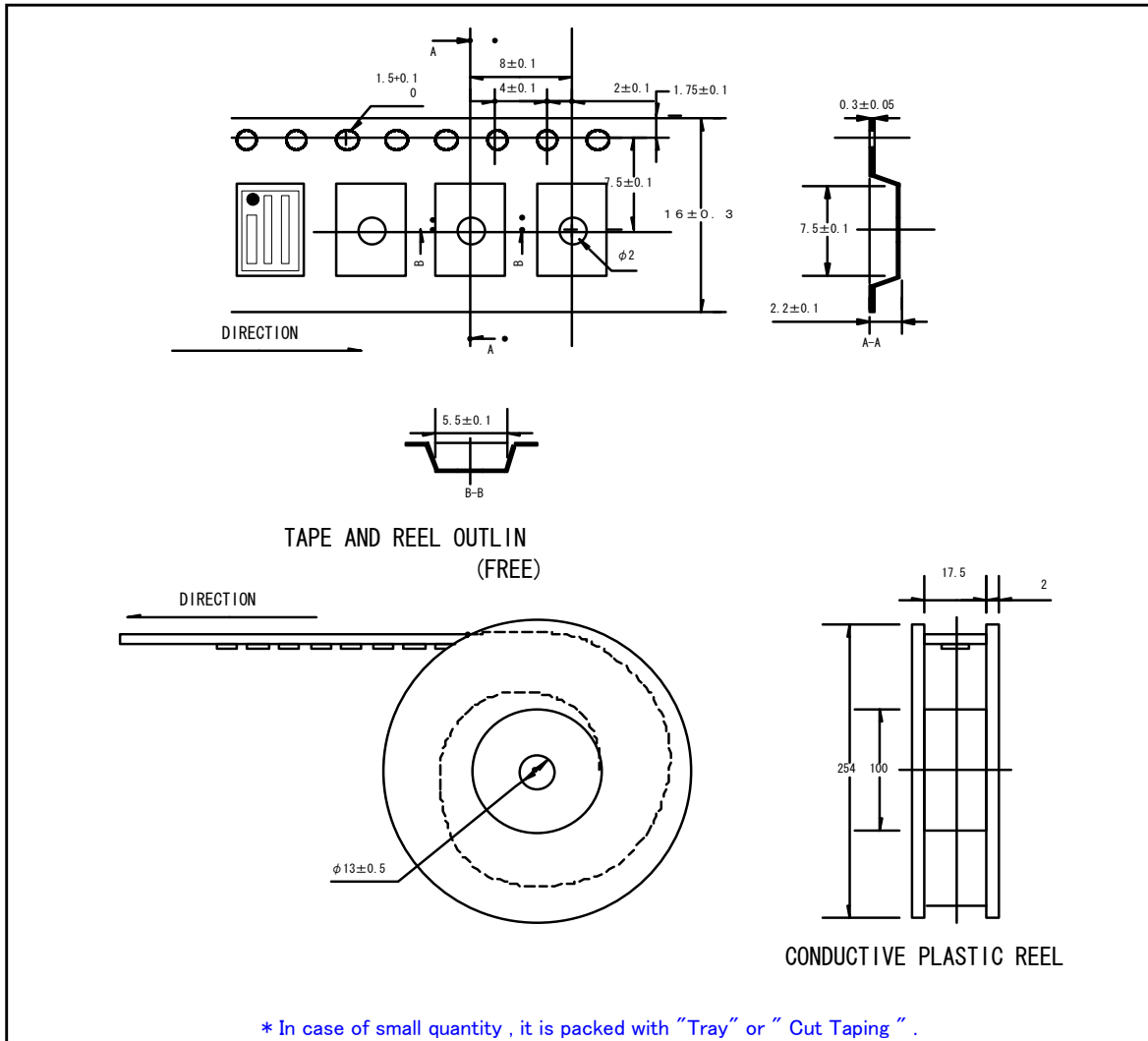


- \* The reflow process can be allowed until 2 times.
- \* In case of manual soldering ; using soldering iron at +360deg.c  $\pm$  20deg.c , within 3sec ( per each 1pad )
- \* This product includes CMOS device, then please handle it with protected process against ESD.

● How to define Model Number



● Taping & Reel dimension



2013.05.02 Rev.A

# TamaDevice

Solution & Development

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