

- LVDS Output Crystal Oscillator -

TYPE : CL50V / CL504****

RoHS

- LVDS output SPXO (80MHz to 320MHz)
- Excellent performance / Low jitter and high stability vs temperature
- Excellent reliability / Metal lid and ceramic seam welded package
- RoHS compliant



Supply Voltage	+2.5Vdd or +3.3Vdd
Output Level	LVDS
Dimension	5.0*3.2*1.4mm

- Electrical Specifications -

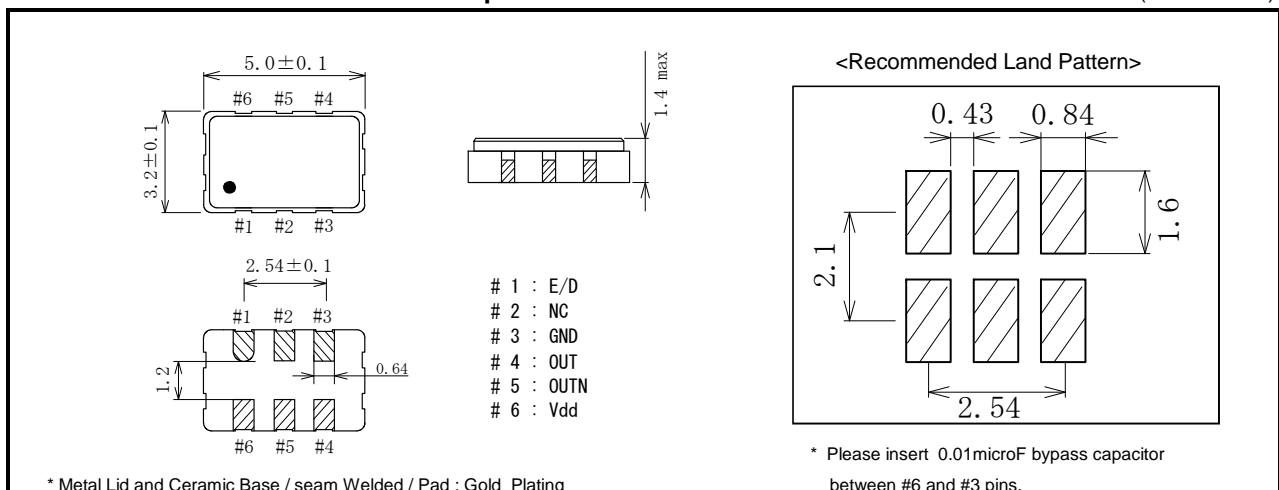
* +3.3Vdd = < CL504* * > +2.5Vdd = < CL50V* * >

Item	Condition	MIN	TYP	MAX	UNIT
Frequency Range (Fo)		80	-	320	MHz
Supply Voltage	Vdd=+3.3V	+3.135	-	+3.465	V
	Vdd=+2.5V	+2.375	-	+2.625	
Total Frequency Accuracy (Including accuracy, supply voltage change, 1st year aging)	(G) option	-20	-	+20	PPM
	(A) option	-25	-	+25	
	(B) option	-50	-	+50	
	(C) option	-100	-	+100	
Operating temperature	(S) option	0	-	+70	deg.c
	(A) option	-20	-	+70	
	(B) option	-40	-	+85	
	(C) option	-10	-	+70	
Storage temperature		-50	-	+125	
Output Level	VOH	-	1.43	1.6	V
	VOL	0.9	1.10	-	
Rise Time	20% to 80%	-	0.3	0.7	nS
Fall Time	80% to 20%	-	0.3	0.7	
Duty	80MHz to 249.9MHz	45	-	55	%
	250MHz to 320MHz	40	-	60	
Differential Output Level	RL =100 Ohm	247	330	454	mV
Offset Level	RL =100Ohm / Fo=100MHz	1.125	1.25	1.375	V
Offset Level Accuracy	RL =100Ohm / Fo=100MHz	-	-	50	mV
Current Consumption	Vdd = +3.3V	-	45	66	mA
	Vdd = +2.5V	-	43	63	
Load		100			Ohm
RMS jitter *1	Offset : 12kHz to 20MHz	-	0.2 - 0.6	-	ps
Start Up Time		-	-	10	mA
E/D function	#1pin = Hi or Open : Output Enable / Low : Output Disable				

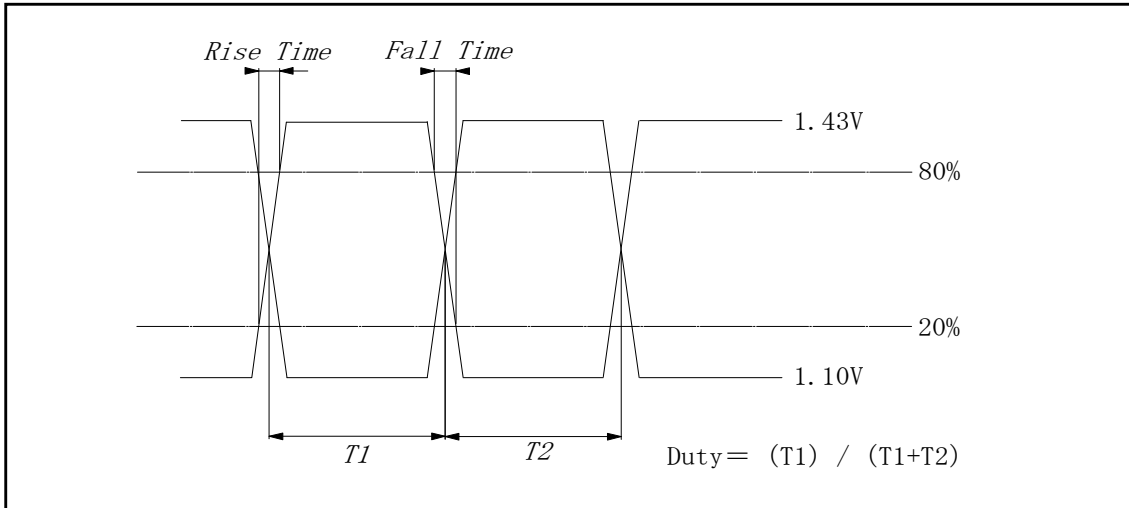
1*) Measured with E5052B signal source analyzer (Agilent technology) .
(Typical RMS Jitter value is depending on Output Frequency).

< Dimension and recommended land pattern >

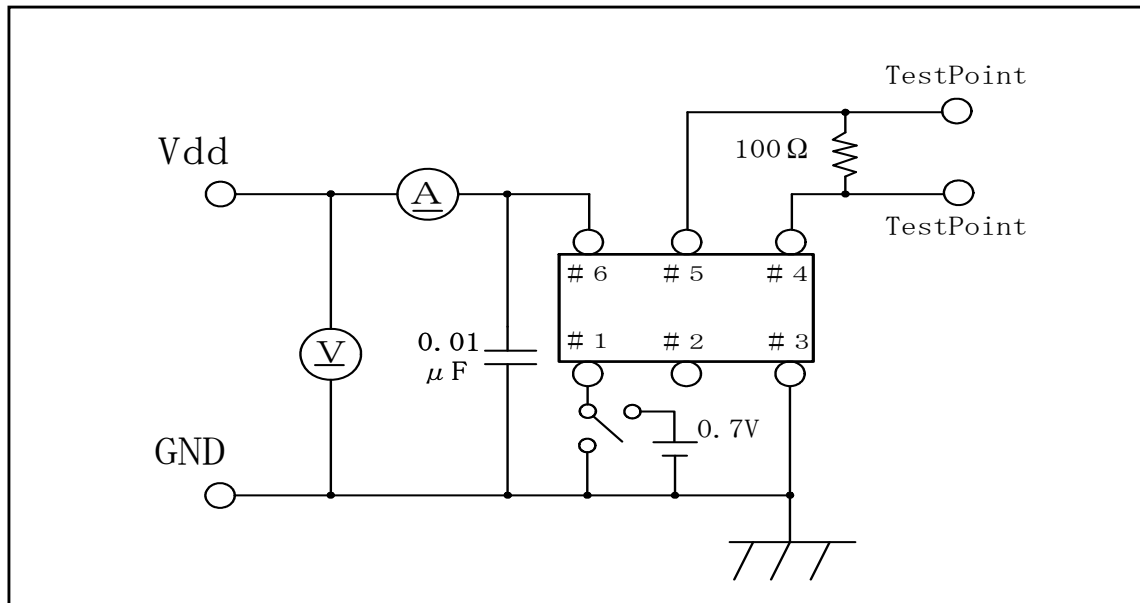
(Unit in mm)



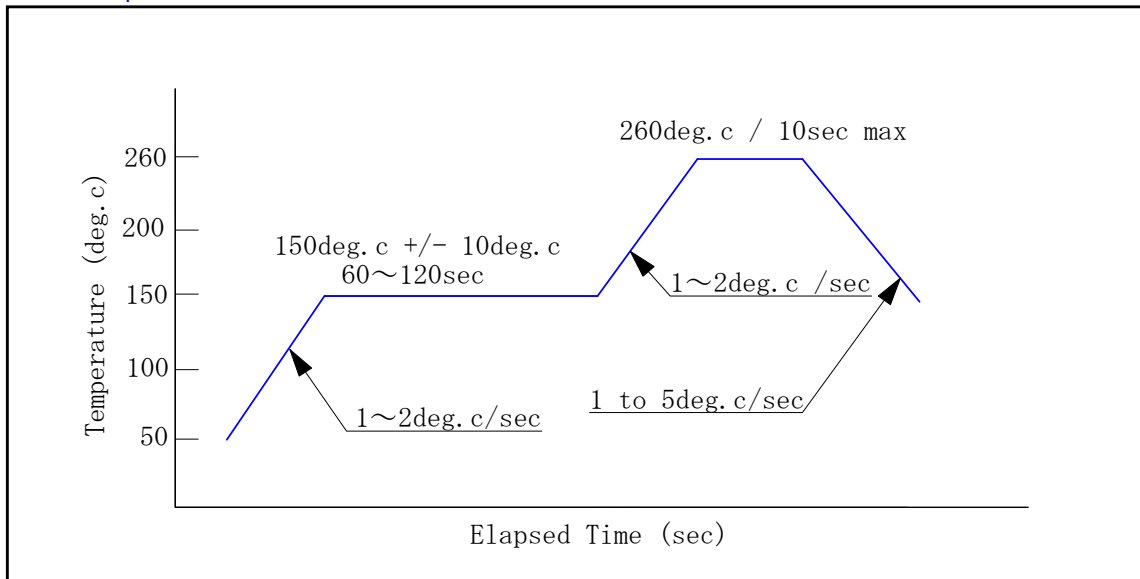
● Output Wave Form Diagram (Single output)



● Test circuits

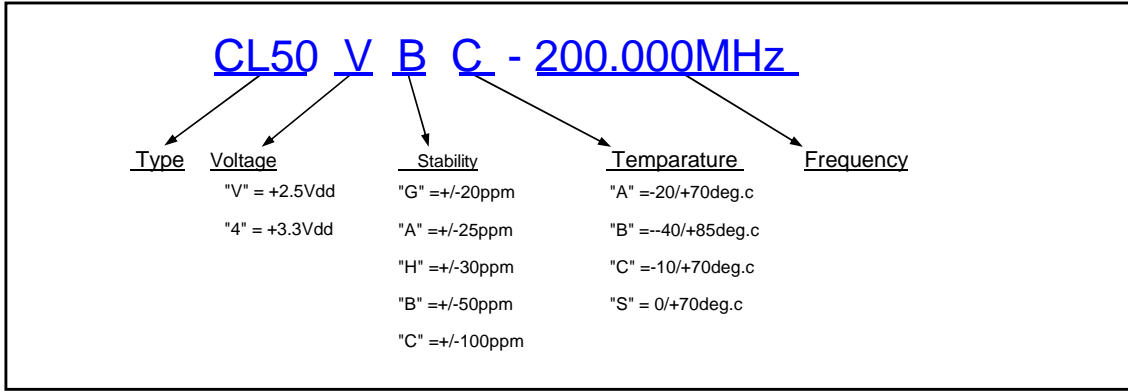


● Reflow profile

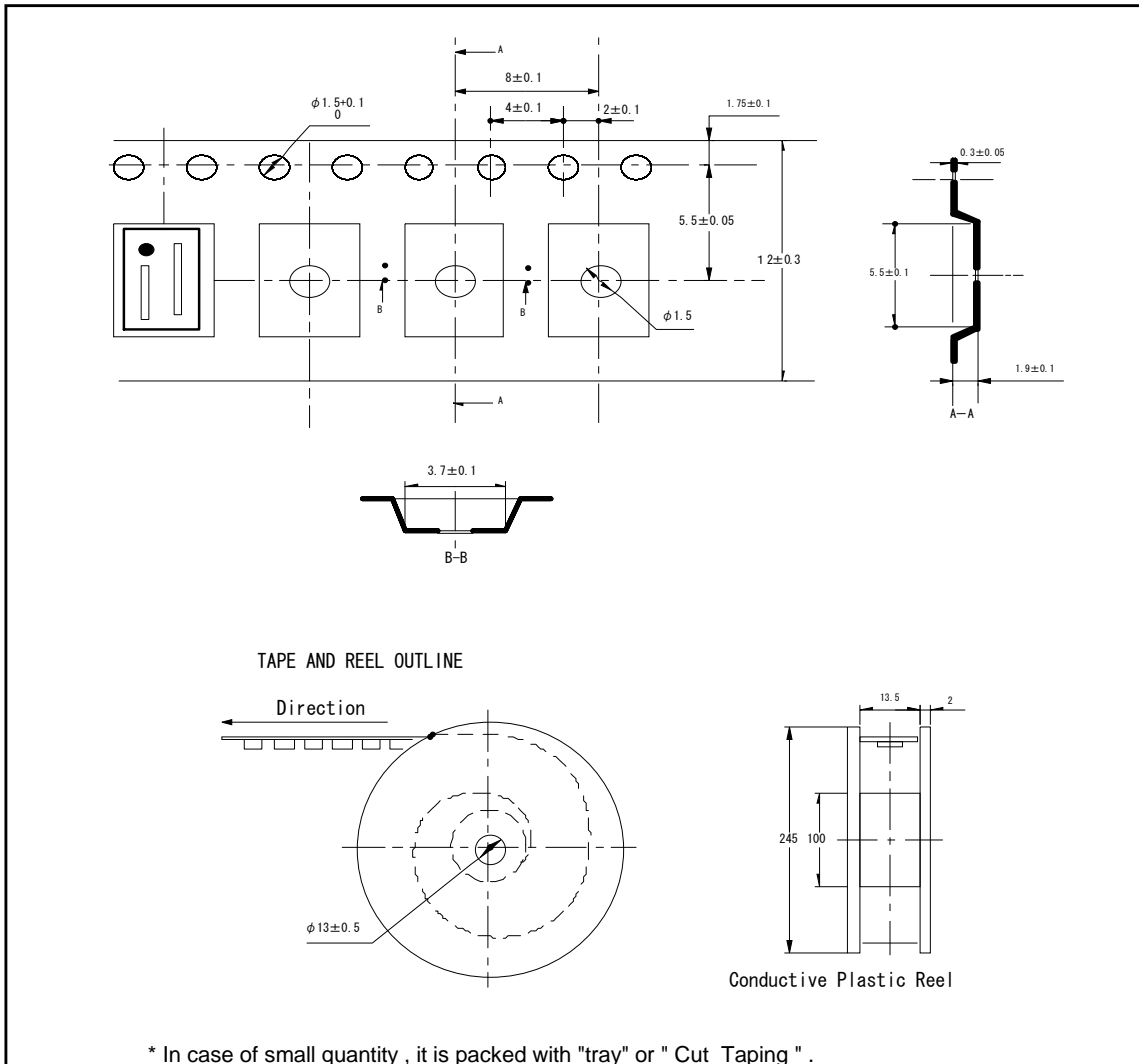


- * The reflow process can be allowed until 2 times.
- * In case of manual soldering ; using soldering iron at +360deg.c +/-20deg.c , within 3sec (per each 1pad)
- * This product includes CMOS device, then please handle it with protected process against ESD.

● How to define Model Number



● Taping & Reel dimension



2013.05.02 Rev.C1

TamaDevice
Solution & Development

(URL) <http://www.tamadevice.co.jp>

(E-MAIL) info@tamadevice.co.jp

(TEL) +81-44-945-8028

(FAX) +81-44-945-8486

Copyright© Tamadevice.Co.,Ltd