

The ultra-miniature 4-Pad ECX-1210B is a very compact SMD Tuning Fork Crystal. The 1.2 x 1.0 x 0.35 mm ceramic package is the smallest in it's class. This is very popular with small wearables and medical devices.

ECX-1210B 32.768 KHz SMD Tuning Fork Crystal

[Request a Sample](#)



ECX-1210B SMD CRYSTAL



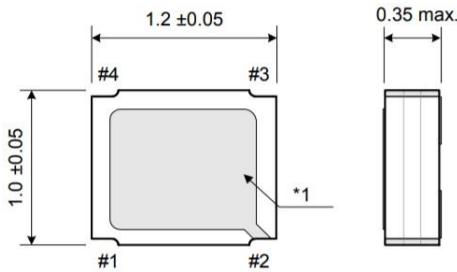
- Low Power RTC Applications such as STM32 [AN2867](#)
- 1.2 x 1.0 mm Footprint
- Extended Temp. Range
- RoHS Compliant
- Applications: Smartphones, wireless modules, wearable devices

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-1210B			UNITS
		MIN	TYP	MAX	
Frequency			32.768		KHz
Frequency Tolerance*	@ +25°C			± 20	ppm
Load Capacitance	Specify in P/N		12.5		pF
Drive Level	DL			1.0	μW
Equivalent Series Resistance	R1			80K	Ω
Turnover Temperature		+20	+25	+30	°C
Temperature Coefficient		-0.02	-0.03	-0.04	ppm/°C ²
Shunt Capacitance	C0		1.5		pF
Aging (First Year)	@ +25°C ±3°C			±3	ppm
Operating Temperature*	Topr	-40		+105	°C
Storage Temperature	Tstg	-40		+105	°C

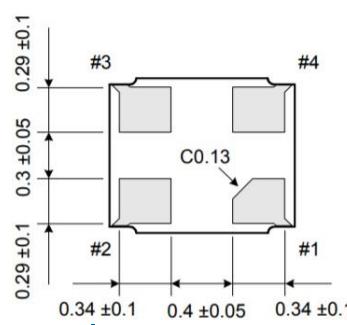
* Specify options in part number

DIMENSIONS (mm)



Pin #2 is connected to the gold plate (*1)

Figure 1) Top, Side, and Bottom views



PAD CONNECTIONS	
#1	In/Out
#2	Ground
#3	Out/In
#4	No Connect

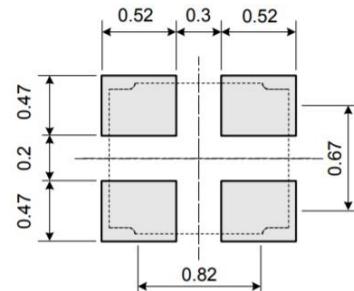


Figure 2) Suggested Land Pattern

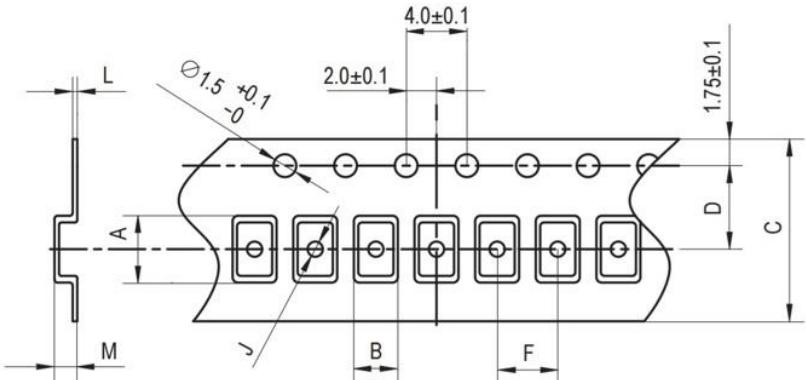
PART NUMBERING GUIDE: Example ECS-.327-12.5-1210B-CN-TR

ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	CUSTOM OPTIONS	PACKAGING
ECS .327 = 32.768 KHz	12.5 = 12.5 pF 9 = 9 pF 7 = 7 pF 6 = 6 pF	-1210B = ECX-1210B	Blank = ±20 ppm * C = ± 10 ppm	Operating Temp M = -20 ~ +70°C N = -40 ~ +85°C P = -40 ~ +105°C TR = Tape & Reel 5K/Reel

* Contact ECS for availability

Rev.2020

POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
1.42	1.17	8.0	3.5	4.0	0.5	0.2	0.65	180	5000pcs

SOLDER PROFILE

Peak solder Temp +260°C Max 10 sec Max.

2 Cycles Max.

MSL 1, Lead Finish Au

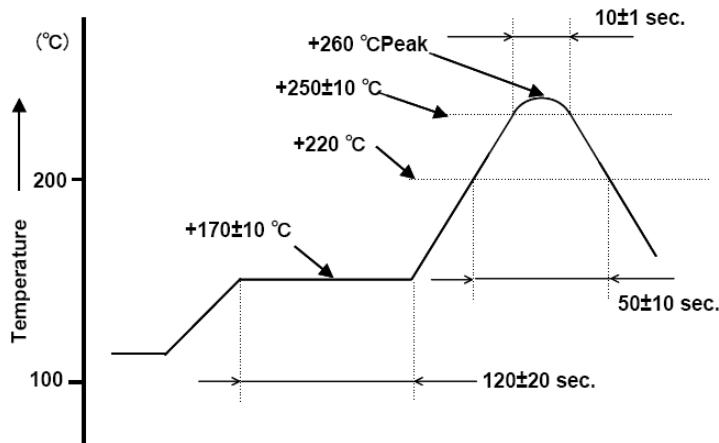


Figure 1) Suggested Reflow Profile