

The ultra-miniature ECX-12 is a very compact SMD Tuning Fork Crystal. The 2.0 x 1.2 x 0.6 mm ceramic package is ideal for mobile devices, IoT, real time clocks, and industrial applications.

ECX-12

32.768 KHz

SMD Tuning Fork Crystal

[Request a Sample](#)



- Low Power RTC Applications such as STM32 [AN2867](#)
- 2.0 x 1.2 mm Footprint
- Extended Temp. Range
- RoHS Compliant
- Applications: Automotive, COTS, Industrial, IOT

DIMENSIONS (mm)

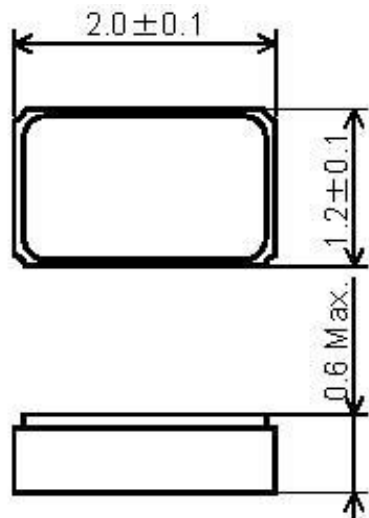
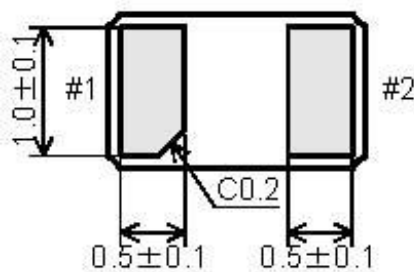


Figure 1) Top, Side, and Bottom views



PAD CONNECTIONS	
1	In/Out
2	Out/In

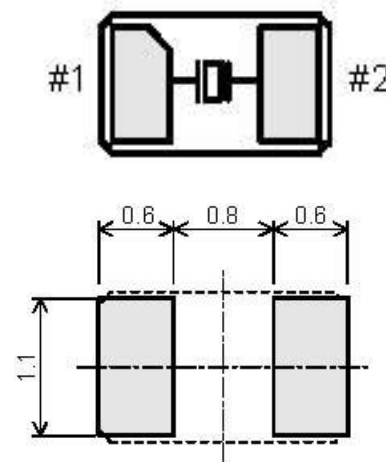


Figure 2) Suggested Land Pattern

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

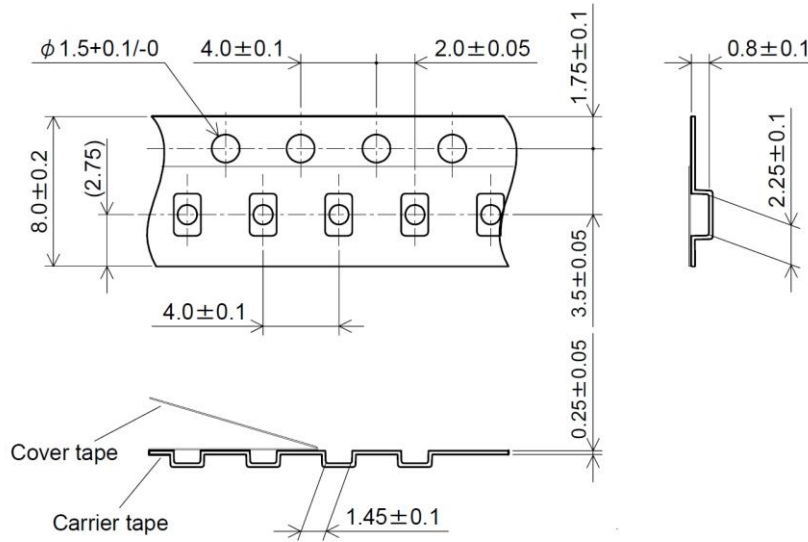
PARAMETERS	CONDITIONS	ECX-12			UNITS
		MIN	TYP	MAX	
Frequency			32.768		KHz
Frequency Tolerance	@ +25°C			± 20 *	ppm
Load Capacitance	Specify in P/N		12.5		pF
Drive Level	DL		0.1	0.5	μW
Equivalent Series Resistance	R1			90K	Ω
Motional Capacitance			7.0		fF
Turnover Temperature		+20	+25	+30	°C
Temperature Coefficient		-0.02	-0.03	-0.040	ppm/°C ²
Shunt Capacitance	Co		1.3		pF
Aging (First Year)	@ +25°C ±3°C			±3	ppm
Operating Temperature	T _{opr}	-40		+85	°C
Storage Temperature	T _{stg}	-55		+125	°C

PART NUMBERING GUIDE: Example ECS-.327-12.5-12-TR

ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	CUSTOM OPTIONS Tolerance	PACKAGING
ECS	.327 = 32.768 KHz 12.5 = 12.5 pF 9 = 9 pF 7 = 7 pF 6 = 6 pF	-12 = ECX-12	Blank = ±20 ppm * C = ± 10 ppm	TR = Tape & Reel 3K/Reel

*Contact ECS for availability

POCKET TAPE DIMENSIONS (mm)



SOLDER PROFILE
Peak solder Temp +260°C Max 10 sec Max.
2 Cycles Max.
MSL 1, Lead Finish Au

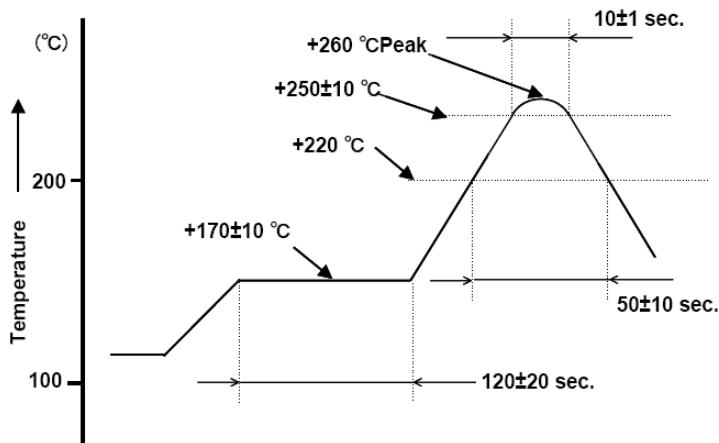


Figure 1) Suggested Reflow Profile

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Crystals category](#):

Click to view products by [ECS Inc manufacturer](#):

Other Similar products are found below :

[MC405 32.0000K-R3:PURE SN](#) [7B-27.000MBBK-T](#) [MP1-8.0 99-BU](#) [9B-15.360MBBK-B](#) [PTX-A2JM-10.000M](#) [9C-7.680MBBK-T](#) [H10S-12.000-18-EXT-TR](#) [ABLS-18.432MHZ-20-D-4-T](#) [R38-32.768-12.5-5PPM-NPB](#) [BTD1062E05A-513](#) [21U15A-21.4MHZ](#) [RTX-781DF1-S-20.950](#) [LFXTAL066198Cutt](#) [9C-14.31818MBBK-T](#) [A-11.000MHZ-27](#) [ABM3B1-25.000MHZ-D2Y-T](#) [SPT2A-.032768B](#) [SPT2A.032768G](#) [SSPT7F-9PF20-R](#) [FX325BS-38.88EEM1201](#) [MP-1-25.000MHZ-3L](#) [MP-1-6.000MHZ](#) [LFXTAL065253Cutt](#) [LFXTAL066431Cutt](#) [XT9S20ANA14M7456](#) [XT9SNLANA16M](#) [646G-24-2](#) [7B-30.000MBBK-T](#) [9B-14.31818MBBK-B](#) [6504-202-1501](#) [6526-202-1501](#) [FA-118T](#) [27.1200MB50P-K0](#) [ABLS-12.000MHZ-B2Y-T](#) [BTJ120E02C](#) [SG636PCE-20.000MC](#) [3404](#) [CX3225SB48000Z0DZNC1](#) [CM315D32768EZFT](#) [C1E-24.000-7-2020-R](#) [C1E-19.200-12-1530-X-R](#) [C1E-16.000-12-1530-X-R](#) [FL5000014](#) [EUCA18-3.1872M](#) [425F35E027M0000](#) [FP0800018](#) [17196](#) [MS3V-T1R-32.768kHz-7pF-20PPM-TA-QC-Au](#) [VXM7-1C1-16M000](#) [MS1V-T1K-32.768kHz-10pF-20PPM-TA-QC-Au](#)