

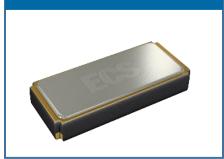
The ultra-minature ECX-1210 is a very compact SMD Tuning Fork Crystal. The  $1.2 \times 1.0 \times 0.35$  mm ceramic package is ideal for today's SMD manufacturing environment.

# ECX-1210 32.768 KHz SMD Tuning Fork Crystal

ECS INC
INTERNATIONAL®

Request a Sample

### **ECX-1210 SMD CRYSTAL**

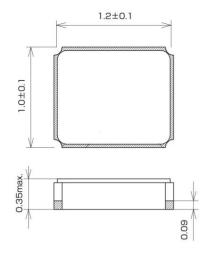


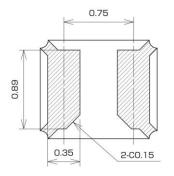
- Low Profile
- 1.2 x 1.0 mm Footprint
- Extended Temp. Range
- RoHS Compliant
- Applications: Automotive, COTS, Industrial, IOT

## **OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS**

PARAMETERS	CONDITIONS	ECX-1210		UNITS	
		MIN	TYP	MAX	
Frequency			32.768		KHz
Frequency Tolerance	requency Tolerance @ +25°C			± 20 *	ppm
Load Capacitance	Specify in P/N		12.5		pF
Drive Level	DL		0.1	0.2	μW
Equivalent Series Resistance	iivalent Series Resistance R1			90K	Ω
Turnover Temperature	nover Temperature		+25	+30	°C
Temperature Coefficient	Coefficient		-0.03	-0.040	ppm/°C²
Shunt Capacitance	Co		1.1		pF
Aging (First Year)	@ +25°C ±3°C			±3	ppm
Operating Temperature	Topr	-40		+85	°C
Storage Temperature	Tstg	-40		+85	°C

## **DIMENSIONS (mm)**





PAD CONNECTIONS		
1	In/Out	
2	Out/In	

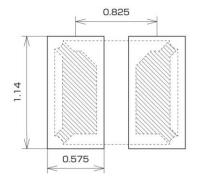


Figure 2) Suggested Land Pattern

Figure 1) Top, Side, and Bottom views

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

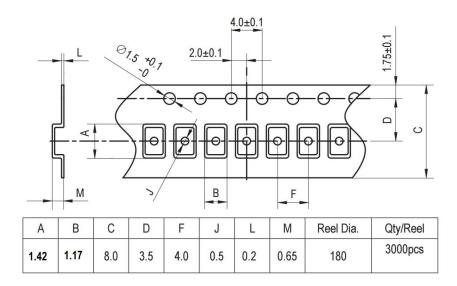
ECS - FREQUENCY ABBREVIATION		LOAD CAPACITANCE	PACKAGE	CUSTOM OPTIONS Tolerance	PACKAGING
ECS	.327 = 32.768 KHz	12.5 = 12.5 pF 9 = 9 pF 7 = 7 pF	-1210 = ECX-1210	Blank = ±20 ppm * C = ± 10 ppm	TR = Tape & Reel 3K/Reel

Rev.2017





## **POCKET TAPE DIMENSIONS (mm)**



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

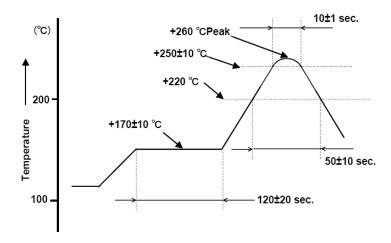


Figure 1) Suggested Reflow Profile