

- ▶ Low profile
- ▶ 1.6 x 1.2 mm Footprint
- ▶ Extended Temp Range Option
- ▶ RoHS Compliant
- ▶ MSL: 1
- ▶ Lead Finish: Au

# ECX-1247

## SMD CRYSTAL

The sub miniature ECX-1247 is a very compact SMD Crystal. The 1.6 x 1.2 x 0.3 mm ceramic package is ideal for today's SMD manufacturing environment.

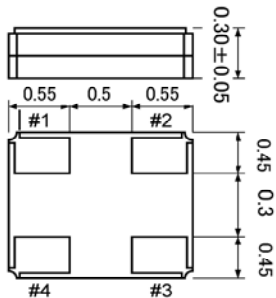
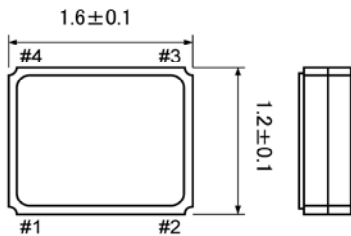
### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-1247			UNITS
		MIN	TYP	MAX	
Frequency Range		24.000		80.000	MHz
Frequency Tolerance	at +25°C			± 20 *	ppm
Frequency Stability	-20 to +70°C			± 30 *	ppm
Shunt Capacitance				5	pF
Load Capacitance	Specify in P/N		8		pF
Drive Level				100	µW
Operating Temperature		-20		+70	°C
Storage Temperature		-40		+85	°C
Aging (Per Year)	@ +25°C ±3°C			±5	ppm

### EQUIVALENT SERIES RESISTANCE/MODE OF OSCILLATION

FREQUENCY RANGE (MHz)	MODE OF OSC	MAX ESR Ω	FREQUENCY RANGE (MHz)	MODE OF OSC	MAX ESR Ω
24.00 ~ 31.999	Fundamental	150	38.000 ~ 80.000	Fundamental	80
32.000 ~ 37.999	Fundamental	100			

### DIMENSIONS (mm)



Pad Connections	
1	In/Out
2	Gnd
3	Out/In
4	Gnd

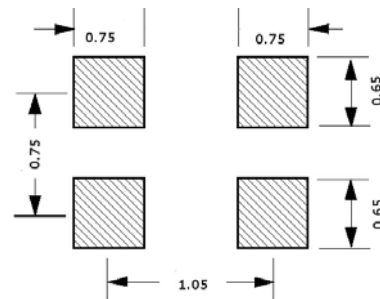


Figure 1) Top, Side, Bottom, End views and Crystal Connection (Top View)

Figure 2) Suggested Land Pattern

### PART NUMBERING GUIDE: Example ECS-260-8-47-TR

ECS - Frequency Abbreviation - Load Capacitance - Package

260 = 26.000 MHz  
See P/N Guide

8 = 8 pF  
S=Series

47 =  
ECX-1247

Custom Options			
Tolerance	* Stability	Temp Range	Packaging
Blank = Std A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm	Blank = Std D = ± 100 ppm E = ± 50 ppm G = ± 30 ppm H = ± 25 ppm T = ± 20 ppm W = ± 15 ppm K = ± 10 ppm	Blank = Std L = -10 ~ +70°C M = -20 ~ +70°C N = -40 ~ +85°C P = -40 ~ +105°C S = -40 ~ +125°C U = -55 ~ +125°C	TR= Tape & Reel 1K/Reel

\*Consult Factory for available stability options over extended temp range.