



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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- ▶ 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.

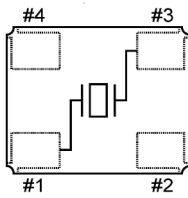
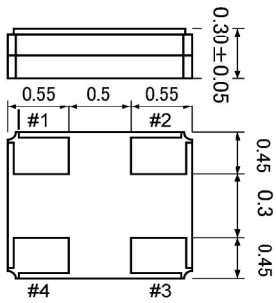
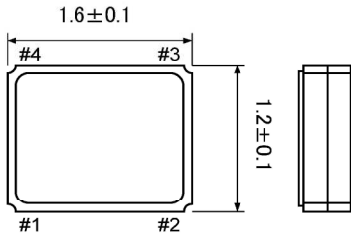
### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-1247			UNITS
		MIN	TYP	MAX	
Frequency Range		26.000		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			±2	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
26.00 ~ 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

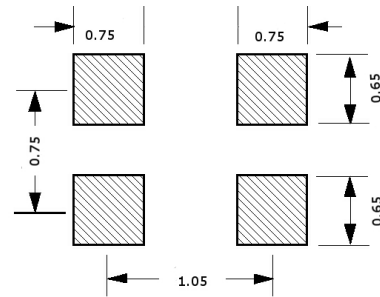


Figure 1) Top, Side, Bottom, End views and Crystal Connection (Top View)

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.