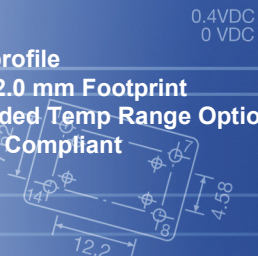


- ▶ Low profile
- ▶ 2.5 x 2.0 mm Footprint
- ▶ Extended Temp Range Option
- ▶ RoHS Compliant



ECX-2236

SMD CRYSTAL



The miniature ECX-2236 is a very compact SMD Crystal. The 2.5 x 2.0 x 0.55 mm ceramic package is ideal for today's SMD manufacturing environment.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-2236			UNITS
		MIN	TYP	MAX	
Frequency Range		16.000		80.000	MHz
Frequency Tolerance	at +25°C			± 50 *	ppm
Frequency Stability	-20 to +70°C			± 50 *	ppm
Shunt Capacitance				5	pF
Load Capacitance	Specify in P/N		8		pF
Drive Level				100	µW
Operating Temperature		-20		+70	°C
Storage Temperature		-55		+125	°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
16.00 ~ 19.999	Fundamental	80	30.000 ~ 34.999	Fundamental	50
20.000 ~ 29.999	Fundamental	60	35.000 ~ 80.000	Fundamental	40

DIMENSIONS (mm)

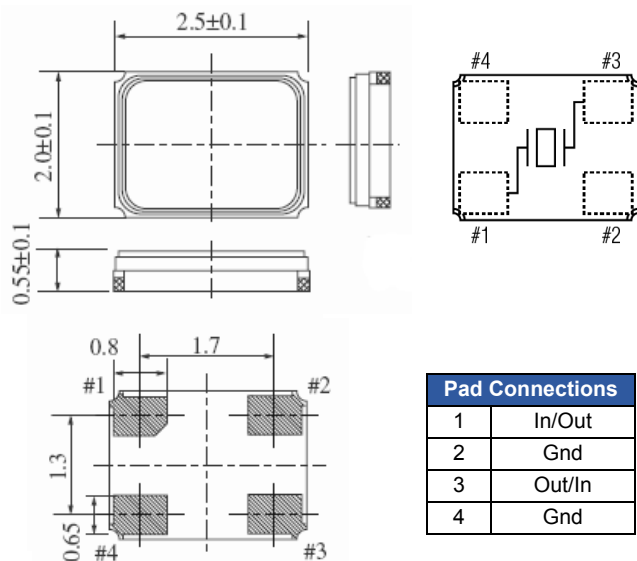


Figure 1) Top, Side, Bottom, End views and Crystal Connection (Top View)

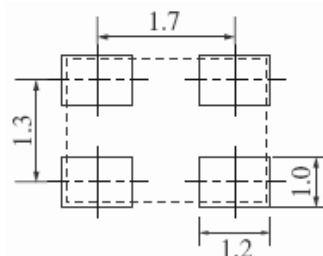


Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-240-8-36-TR

ECS - Frequency Abbreviation - Load Capacitance - Package

240 = 24.000 MHz
See P/N Guide

8 = 8 pF
S=Series

36 =
ECX-2236

Custom Options

Tolerance

Blank = Std
A = ± 25 ppm
J = ± 20 ppm
R = ± 15 ppm
C = ± 10 ppm

* Stability

Blank = Std
D = ± 100 ppm
E = ± 50 ppm
G = ± 30 ppm
H = ± 25 ppm
T = ± 20 ppm
W = ± 15 ppm
K = ± 10 ppm

Temp Range

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

- Packaging

TR= Tape
& Reel
1K/Reel

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

