

- ▶ Low Profile
- ▶ 2.0 x 1.6 mm Footprint
- ▶ Extended Temp. Range Option
- ▶ RoHS Compliant

ECX-1637

SMD CRYSTAL

The sub miniature ECX-1637 is a very compact SMD Crystal. The 2.0 x 1.6 x 0.45 mm ceramic package is ideal for today's SMD manufacturing environment.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-1637			UNITS
		MIN	TYP	MAX	
Frequency	Fo	24.000		80.000	MHz
Frequency Tolerance	@ +25°C			± 50 *	ppm
Frequency Stability (ref @ 25°C)	-20 ~ +70°C			± 50 *	ppm
Shunt Capacitance				5.0	pF
Load Capacitance			8		pF
Equivalent Series Resistance	Fundamental Mode			100	Ω
Drive Level				100	μW
Operating Temperature	Topr	-20		+70	°C
Storage Temperature	Tstg	-40		+85	°C
Aging Characteristics (Per Year)	@ +25°C ± 3°C			± 5	ppm

PACKAGE DIMENSIONS (mm)

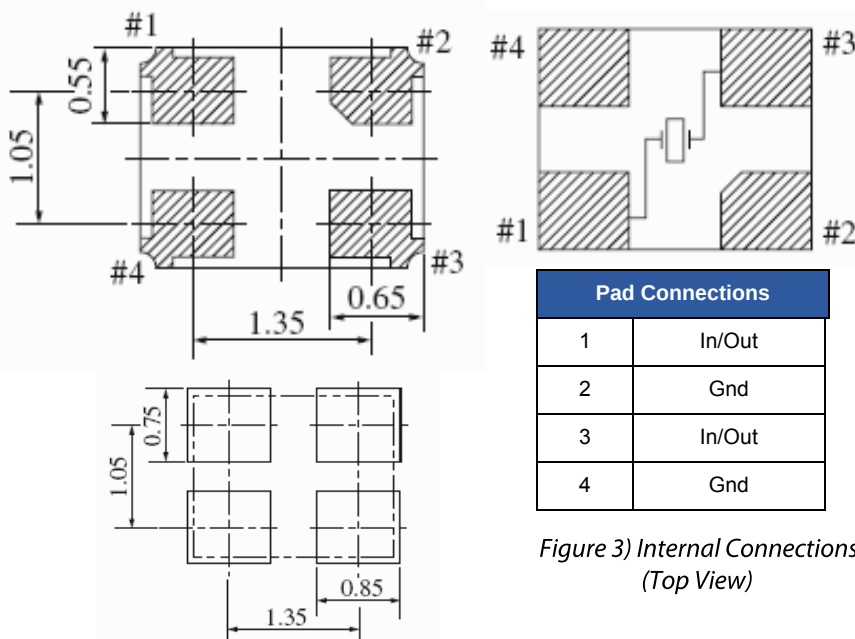
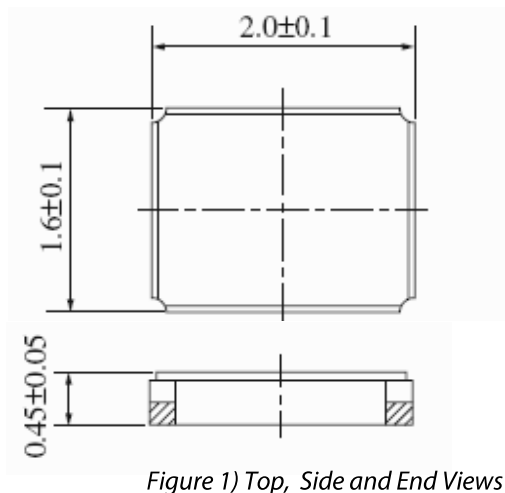


Figure 2) Bottom View and Suggested Land

PART NUMBERING GUIDE: Example ECS-240-8-37-TR

ECS - Frequency Abbreviation - Load - Package Type - Tolerance - Stability - Temp Range - Packaging

240 = 24.000 MHz
See P/N Guide for
Std Frequencies

8 = 8.0 pF
S = Series

-37 =
ECX-1637

A = ± 25 ppm
C = ± 10 ppm

D = ± 100 ppm
E = ± 50 ppm
G = ± 30 ppm
H = ± 25 ppm
K = ± 10 ppm

L = -10 ~ +70°C
M = -20 ~ +70°C
N = -40 ~ +85°C
P = -40 ~ +105°C

-TR =
Tape & Reel
1K/Reel

* Tighter Tolerance/Stability Options Available (see custom options)
Not all stabilities are available at all temp ranges, consult ECS.



ECX-1637

SMD CRYSTAL



Frequency Abbreviations

FREQUENCY MHz	CODE
24.000	240
24.576	245.76
26.000	260
27.000	270
27.120	271.2
28.63636	286.36
32.000	320
36.000	360
38.400	384
40.000	400

Sample P/N: ECS-240-8-37

ECS = Mfg Code

240 = Frequency Code 24.000 MHz

-8 = Load Capacitance 8 pF

-37 = Package, ECX-1637

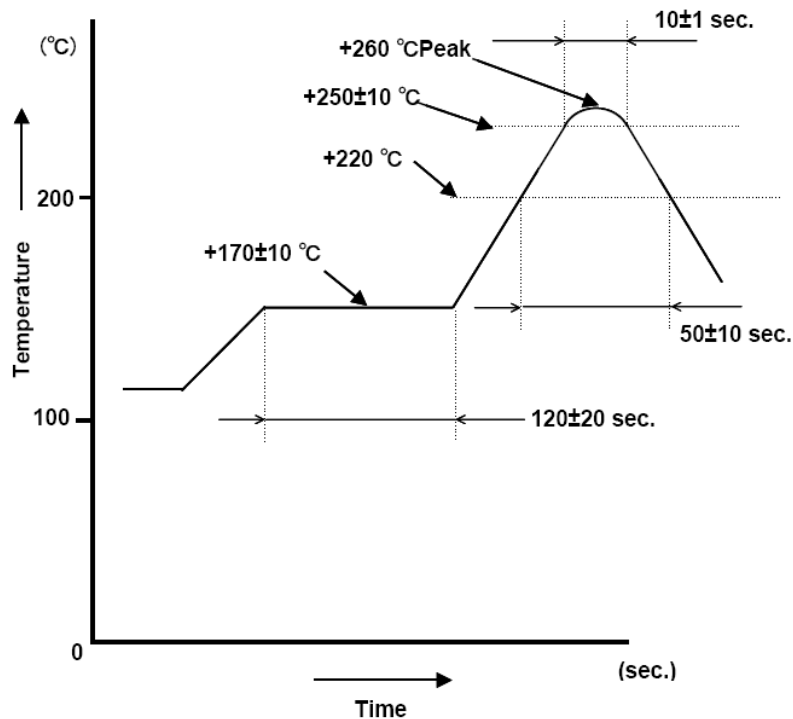
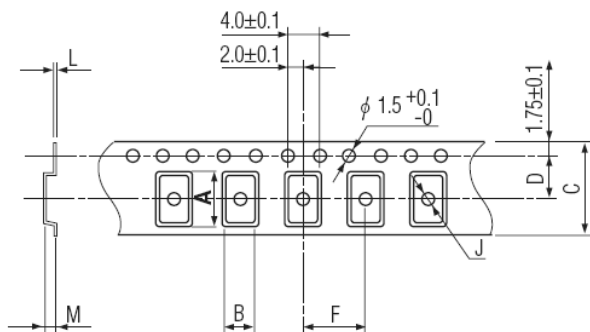


Figure 1) Suggested Reflow Profile

POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
2.25	1.85	8.0	3.5	4.0	1.0	0.25	0.65	180	1000

Package Data	
Item	Description
Lid	Metal
Base	Ceramic
Sealing	Seam/EB
Terminal	Tungsten (metalized)
Plating	Gold/Nickel Surface/Under
RoHS	Compliant (Pb Free)

Figure 2) Pocket Tape Dimensions