ECX-42
SMD CRYSTAL

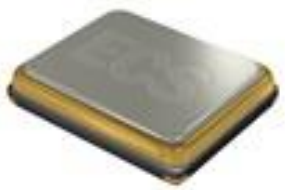
RoHS COMPLIANT

The miniature ECX-42 is a compact SMD Crystal. The 4.0 x 2.5 x 0.8 mm ceramic package is ideal for wireless, PMCIA, and high density applications

Request a Sample

ECS INC INTERNATIONAL®

ECX-42 SMD CRYSTAL



- Low Profile
- 4.0 x 2.5 mm Footprint
- Extended Temp. Range Option
- RoHS Compliant

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-42			UNITS
		MIN	TYP	MAX	
Frequency		12.000		50.000	MHz
Mode of Oscillation	Fundamental				
Frequency Tolerance*	@ +25°C			± 30	ppm
Frequency Stability*	-10 ~ +70°C			± 50	ppm
Shunt Capacitance	Co			5	pF
Load Capacitance	Specify in P/N		12		pF
Drive Level	DL			300	µW
Operating Temperature*	Topr	-10		+70	°C
Storage Temperature	Tstg	-55		+125	°C
Aging (First Year)	@ +25°C ±3°C			±5	ppm

DIMENSIONS (mm)

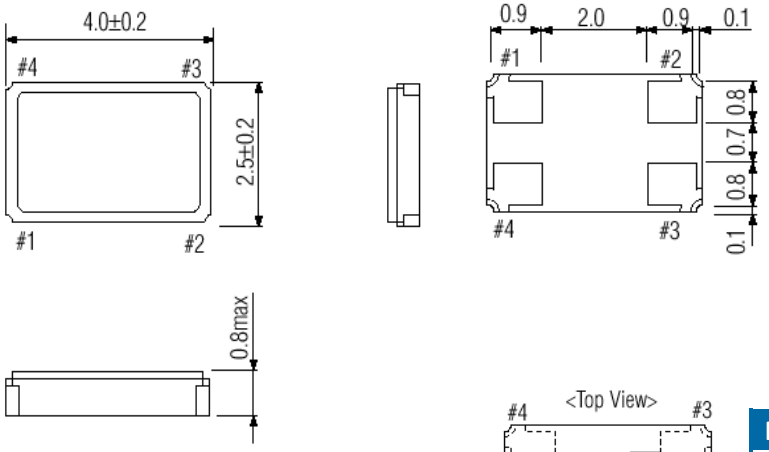
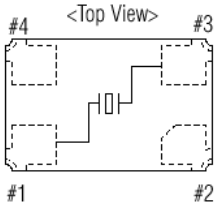


Figure 1) *Top, Side, and Bottom*

Crystal is symmetrical, pad 1 & 3 are interchangeable. Chamfer on the bottom pad has no electrical significance.



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

Frequency (MHz)	ESR Ω Max.
12.000 ~ 15.999	80
16.000 ~ 19.999	60
20.000 ~ 23.999	50
24.000 ~ 50.000	40

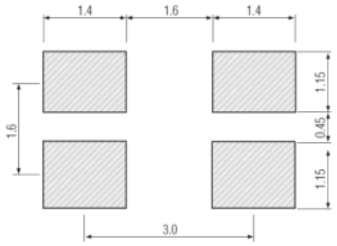


Figure 2) *Suggested land*

PART NUMBERING GUIDE: Example ECS-200-20-42-TR

ECS -	FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS			PACKAGING
				Tolerance	Stability	Temp Range	
ECS	200 = 20.000 MHz See P/N Guide	20 = 20 pF S = Series	42 = ECX-42	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 Y = -30 ~ +85°C N = -40 ~ +85°C P = -40 ~ +105°C S = -40 ~ +125°C U = -55 ~ +125°C	TR = Tape & Reel 1K/Reel

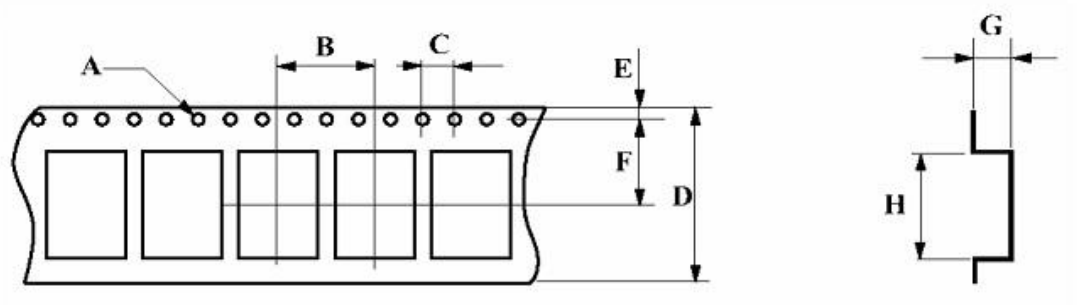
* Specify available options in P/N.

† Contact ECS for availability over extended temp range.

Rev.2017

ECX-42
SMD CRYSTAL

POCKET TAPE DIMENSIONS (mm)



TAPE SPECIFICATIONS (mm)								
MODEL	A	B	C	D	E	F	G	H
ECS-42	ϕ 1.5	4.0	4.0	12.0	2.50	3.5	1.0	4.4

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

DEVELOPED FREQUENCIES	
Abbreviation	Frequency (MHZ)
120	12.000
130	13.000
160	16.000
240	24.000
260	26.000
320	32.000

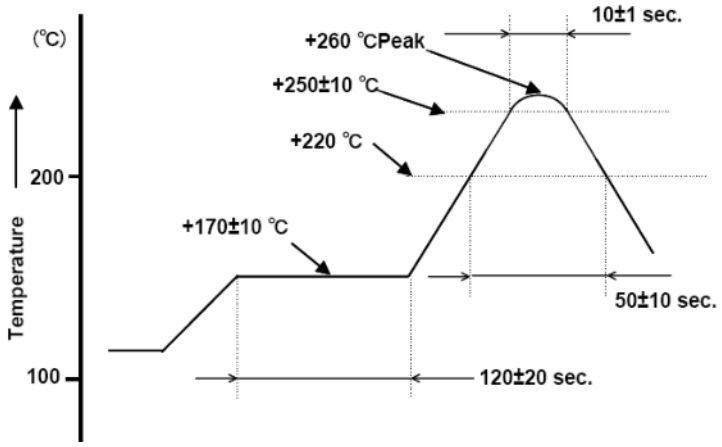


Figure 1) *Suggested Reflow Profile*