

The sub miniature ECX-1637B is a very compact SMD Crystal. The 2.0 x 1.6 x 0.45 mm ceramic package is ideal for wireless applications.

[Request a Sample](#)

## ECX-1637B SMD CRYSTAL

## OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- Low 1<sup>st</sup> Year Aging  $\pm 1$  ppm Max.
- 2.0 x 1.6 mm Footprint
- Extended Temp. Range Option
- RoHS Compliant

### DIMENSIONS (mm)

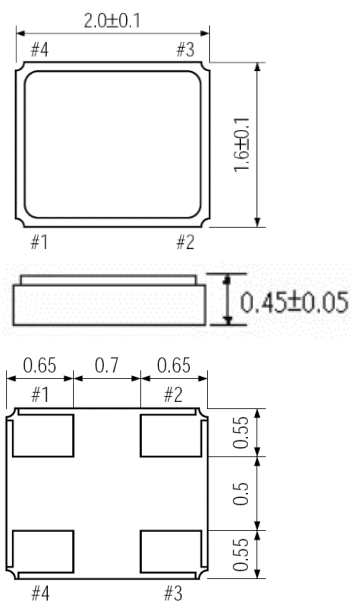
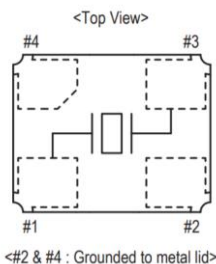


Figure 1) Top, Side, and Bottom

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



<#2 & #4 : Grounded to metal lid>

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

PARAMETERS	CONDITIONS	ECX-1637B			UNITS
		MIN	TYP	MAX	
Frequency		16.000		96.000	MHz
Mode of Oscillation	Fundamental				
Frequency Tolerance*	@ +25°C (C option)			$\pm 10$	ppm
Frequency Stability*	-30 ~ +85°C (KY option)			$\pm 10$	ppm
Shunt Capacitance	Co			3	pF
Load Capacitance	Specify in P/N		8		pF
Drive Level	DL			100	$\mu$ W
Operating Temperature*	T <sub>opr</sub> (Y option)	-30		+85	°C
Storage Temperature	T <sub>stg</sub>	-55		+125	°C
Aging (First Year)	@ +25°C $\pm 3$ °C			$\pm 1$	ppm

Frequency (MHz)	ESR $\Omega$ Max.
16.000 ~ 19.999	150
20.000 ~ 23.999	70
24.000 ~ 39.999	50
40.000 ~ 81.999	40
82.000 ~ 96.000	25

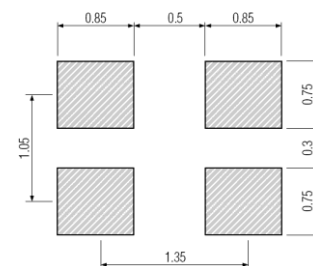


Figure 2) Suggested land

## PART NUMBERING GUIDE: Example ECS-240-8-37B-CKY-TR

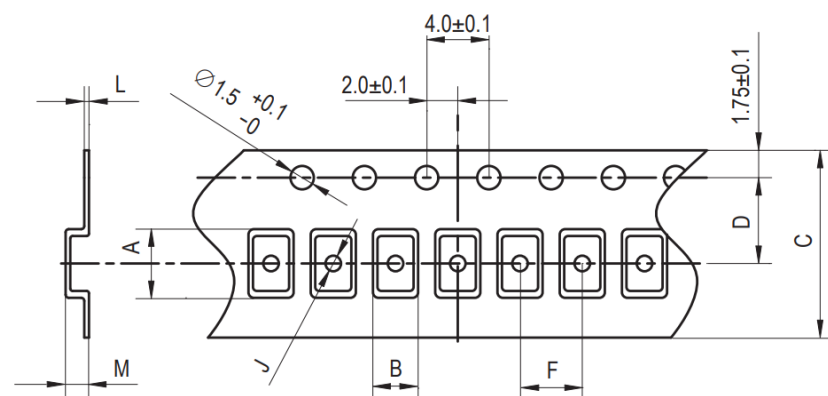
ECS - FREQUENCY ABBREVIATION		LOAD CAPACITANCE	PACKAGE	Tolerance Range	AVAILABLE OPTIONS	Temp	PACKAGING
ECS	240 = 24.000 MHz See P/N Guide	8 = 8 pF 10 = 10 pF S=Series	-37B = ECX-1637B	Blank = Std A = $\pm 25$ ppm J = $\pm 20$ ppm R = $\pm 15$ ppm C = $\pm 10$ ppm 7 = $\pm 7$ ppm	Blank= Std D = $\pm 100$ ppm E = $\pm 50$ ppm G = $\pm 30$ ppm H = $\pm 25$ ppm T = $\pm 20$ ppm $\dagger$ W = $\pm 15$ ppm $\dagger$ K = $\pm 10$ ppm $\dagger$	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 =1K TR3=3K Qty/Reel

\* Specify available options in P/N.

$\dagger$  Contact ECS for availability over extended temp range.

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**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	1.05	0.25	0.65	180	3000pcs (1000pcs)

**SOLDER PROFILE**

Peak solder Temp +260°C Max 10 sec Max.

2 Cycles Max.

MSL 1, Lead Finish Au

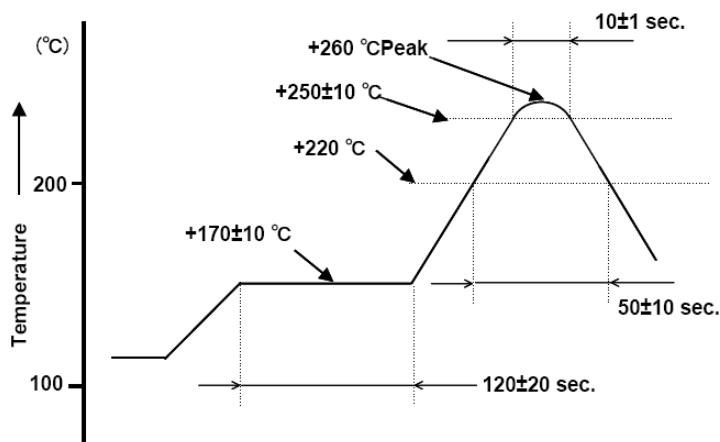


Figure 1) Suggested Reflow Profile

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## ECS:

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