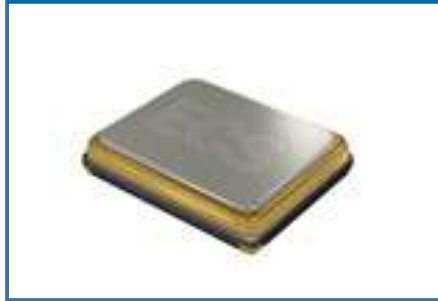


The sub miniature ECX-1637B2 is a very compact SMD Crystal. The 2.0 x 1.6 x 0.45 mm ceramic package is ideal for wireless applications.

[Request a Sample](#)

## ECX-1637B2 SMD CRYSTAL



- Low 1<sup>st</sup> Year Aging  $\pm 2$  ppm Max.
- 2.0 x 1.6 mm Footprint
- Extended Temp. Range Option
- RoHS Compliant

## DIMENSIONS (mm)

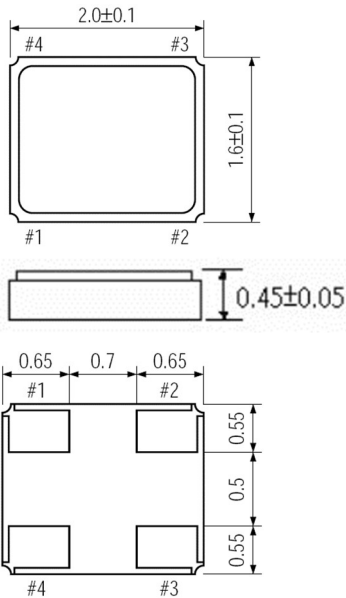


Figure 1) Top, Side, and Bottom

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

## OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-1637B2			UNITS
		MIN	TYP	MAX	
Frequency		16.000		50.000	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			$\pm 2$	ppm

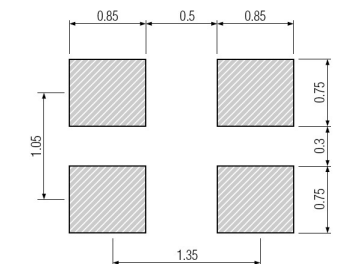
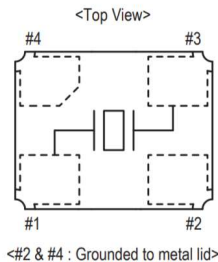


Figure 2) Suggested land

## Pad Connections

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

## PART NUMBERING GUIDE: Example ECS-240-8-37B2-CKY-TR

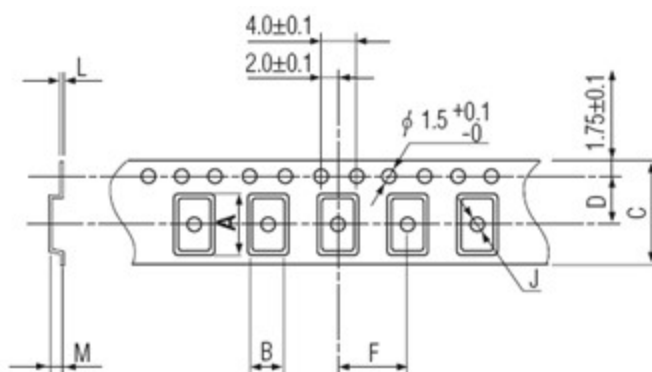
ECS - FREQUENCY ABBREVIATION		LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS			PACKAGING
				Tolerance	Stability	Temp Range	
ECS	240 = 24.000 MHz See P/N Guide	8 = 8 pF 10 = 10 pF S=Series	-37B2 = ECX-1637B2	Blank = Std A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm 7 = ± 7 ppm	Blank= Std D= ±100 ppm 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	TR = Tape & Reel 3K/Reel
* Specify available options in P/N.							
† Contact ECS for availability over extended temp range.							
Rev.2021							

\* 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	1.0	0.25	0.65	180	3000

**SOLDER PROFILE**

Peak solder Temp  $+260^{\circ}\text{C}$  Max 10 sec Max.

2 Cycles Max.

MSL 1, Lead Finish Au

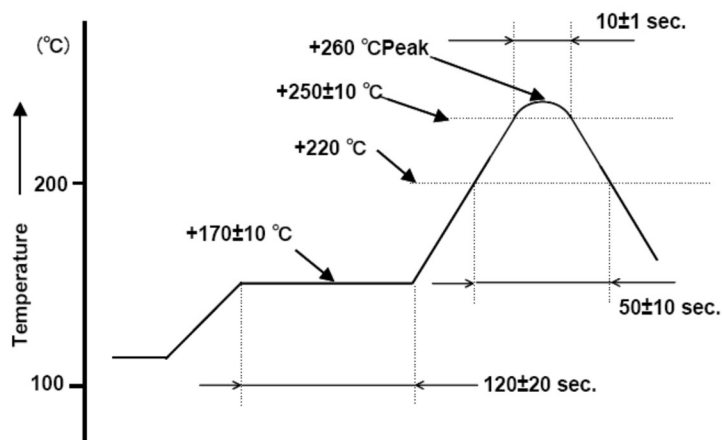


Figure 1) Suggested Reflow Profile

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[ECS-240-8-37B2-CKM-TR](#) [ECS-250-10-37B2-CTN-TR](#) [ECS-320-10-37B2-CKY-TR](#) [ECS-320-10-37B2-CWN-TR](#) [ECS-](#)  
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[TR](#) [ECS-260-6-37B2-CKY-TR](#) [ECS-320-10-37B2-RKY-YR](#) [ECS-320-6-37B2-CKY-TR](#) [ECS-320-9-37B2-CKY-TR](#)  
[ECS-384-10-37B2-CTP-TR](#) [ECS-384-6-37B2-CTP-TR](#) [ECS-384-10-37B2-CWN-TR](#)