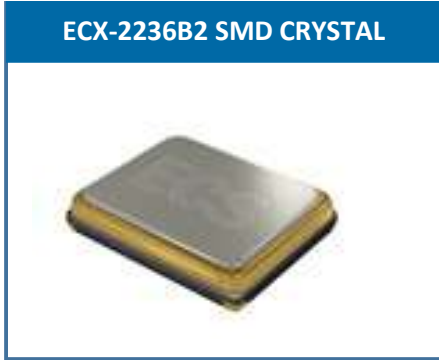


The miniature ECX-2236B2 is a compact SMD Crystal that offers low aging of  $\pm 2$  ppm first year. The industry standard 2.5 x 2.0 x 0.55 mm ceramic package is ideal for wireless applications.

Request a Sample



- Low Profile
- 2.5 x 2.0 mm Footprint
- Extended Temp. Range
- IOT/Wearable applications

### DIMENSIONS (mm)

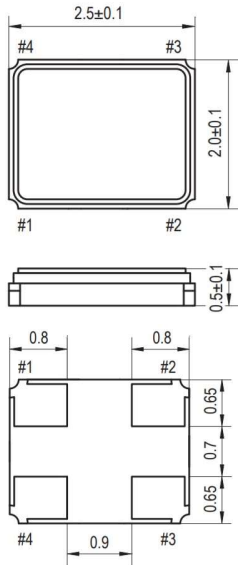


Figure 1) Top, Side, and Bottom

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

### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-2236B2			UNITS
		MIN	TYP	MAX	
Frequency		12.000		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

Frequency (MHz)	ESR $\Omega$ Max.
12.000 ~ 15.999	130
16.000 ~ 19.999	70
20.000 ~ 29.999	50
30.000 ~ 39.999	40
40.000 ~ 50.000	30

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

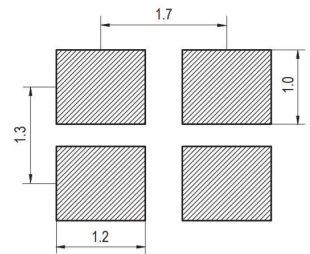
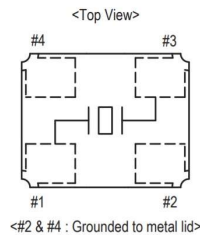


Figure 2) Suggested land



### PART NUMBERING GUIDE: Example ECS-240-8-36B2-CKY-TR

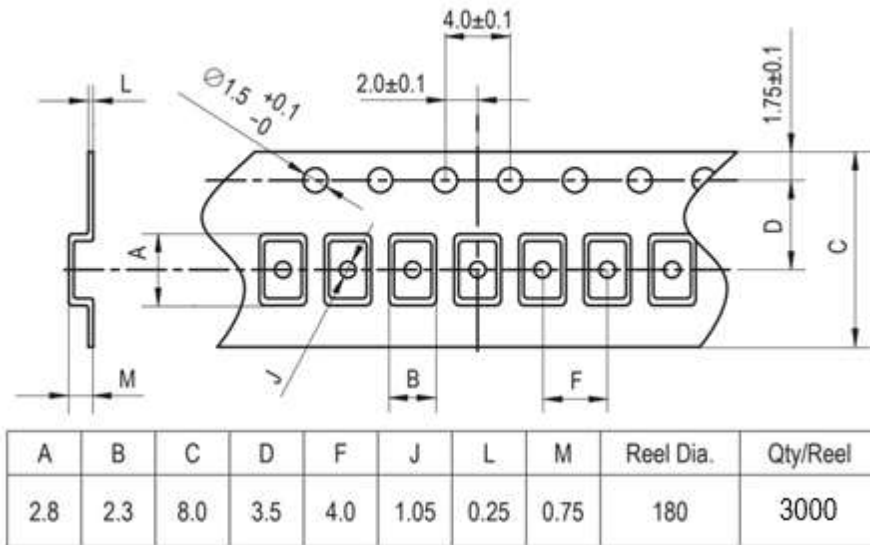
ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS			PACKAGING	
			Tolerance	Stability	Temp Range		
ECS	240 = 24.000 MHz See P/N Guide	8 = 8 pF 10=10 pF	-36B2 = ECX-2236B2	Blank = Std A = $\pm 25$ ppm J = $\pm 20$ ppm R = $\pm 15$ ppm C = $\pm 10$ ppm 7 = $\pm 7$ ppm	Blank= Std D = $\pm 100$ ppm E = $\pm 50$ ppm G = $\pm 30$ ppm H = $\pm 25$ ppm T = $\pm 20$ ppm † W = $\pm 15$ ppm † K = $\pm 10$ 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

**POCKET TAPE DIMENSIONS (mm)**



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

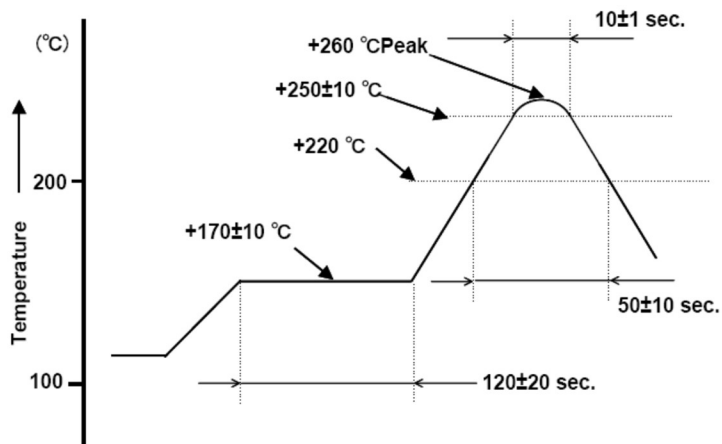


Figure 1) Suggested Reflow Profile

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