

The miniature ECX-2236B is a compact SMD Crystal that offers low aging of ± 1 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)

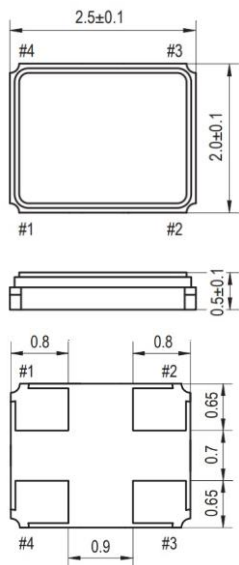


Figure 1) Top, Side, and Bottom

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

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-2236B			UNITS
		MIN	TYP	MAX	
Frequency		12.000		60.000	MHz
Mode of Oscillation	Fundamental				
Frequency Tolerance*	@ +25°C (C option)			± 10	ppm
Frequency Stability*	-30 ~ +85°C (KY option)			± 10	ppm
Shunt Capacitance	Co			3	pF
Load Capacitance	Specify in P/N		8		pF
Drive Level	DL			100	μ W
Operating Temperature*	T _{opr} (Y option)	-30		+85	°C
Storage Temperature	T _{stg}	-55		+125	°C
Aging (First Year)	@ +25°C ± 3 °C			± 1	ppm

Frequency (MHz)	ESR Ω Max.
12.000 ~ 15.999	130
16.000 ~ 19.999	70
20.000 ~ 29.999	50
30.000 ~ 39.999	40
40.000 ~ 60.000	30

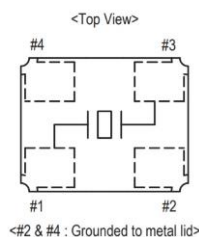


Figure 2) Suggested land

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

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

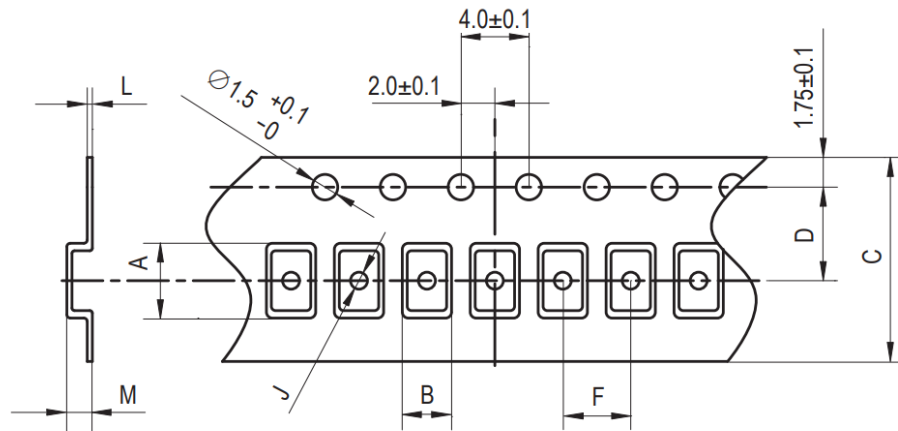
ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS			PACKAGING	
			Tolerance Range	Stability	Temp		
ECS	240 = 24.000 MHz See P/N Guide	8 = 8 pF 10=10 pF	-36B = ECX-2236B	Blank = Std A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm 7 = ± 7 ppm	Blank= Std D = ± 100 ppm E = ± 50 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 U = -55 ~ +125°C	TR =1K TR3=3K Qty/Reel

* Specify available options in P/N.

† 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
2.8	2.3	8.0	3.5	4.0	1.05	0.25	0.75	180	3000pcs (1000pcs)

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

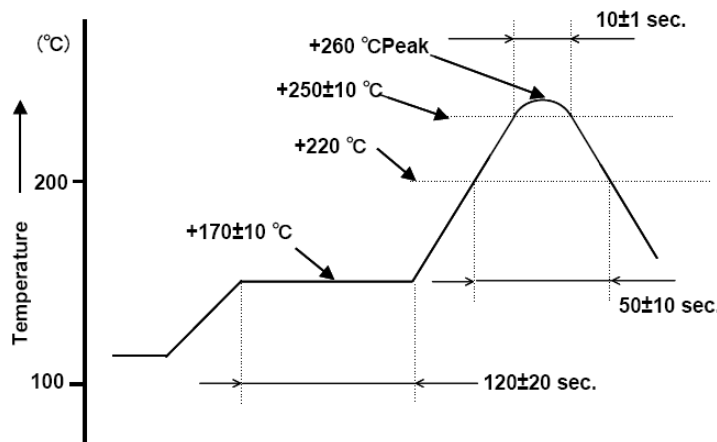


Figure 1) Suggested Reflow Profile

Mouser Electronics

Authorized Distributor

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ECS:

[ECS-240-10-36B-7KM-TR](#) [ECS-320-10-36B-7KM-TR](#) [ECS-120-8-36B-CWY-TR](#) [ECS-160-10-36B-CKM-TR](#) [ECS-160-8-36B-RHN-TR](#) [ECS-160-9-36B-CKY-TR](#) [ECS-320-10-36B-CKM-TR](#) [ECS-320-12-36B-CWN-TR](#) [ECS-480-10-36B-CKM-TR](#) [ECS-250-8-36B-RHN-TR](#) [ECS-400-8-36B-7KY-TR](#) [ECS-160-8-36B-CKY-TR3](#) [ECS-400-10-36B-CKM](#) [ECS-120-10-36B-CWY-TR3](#) [ECS-250-10-36B-CTN-TR3](#) [ECS-250-18-36B-CKY-TR3](#) [ECS-320-8-36B-CKY-TR3](#) [ECS-240-8-36B-CTN-TR3](#) [ECS-320-6-36B-CTN-TR3](#) [ECS-250-10-36B-JTN-TR](#) [ECS-500-4-36B-CTN-TR](#) [ECS-520-8-36B-CTN-TR](#) [ECS-384-10-36B-CWN-TR](#) [ECS-600-8-36B-CTN-TR](#) [ECS-540-8-36B-CTN-TR](#)