



THE DATASHEET OF ECS-160-8-36B-CKY-TR

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](#)

ECX-2236B SMD CRYSTAL



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

DIMENSIONS (mm)

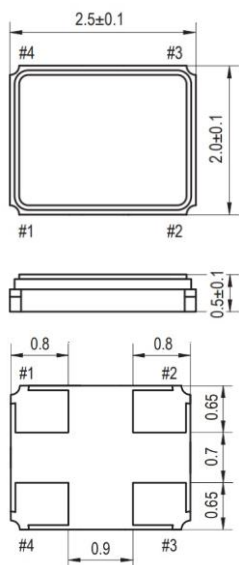


Figure 1) Top, Side, and Bottom

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

Pad Connections

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

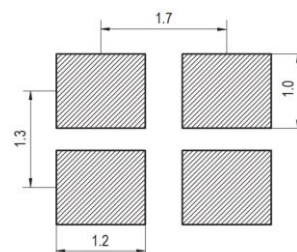


Figure 2) Suggested land

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

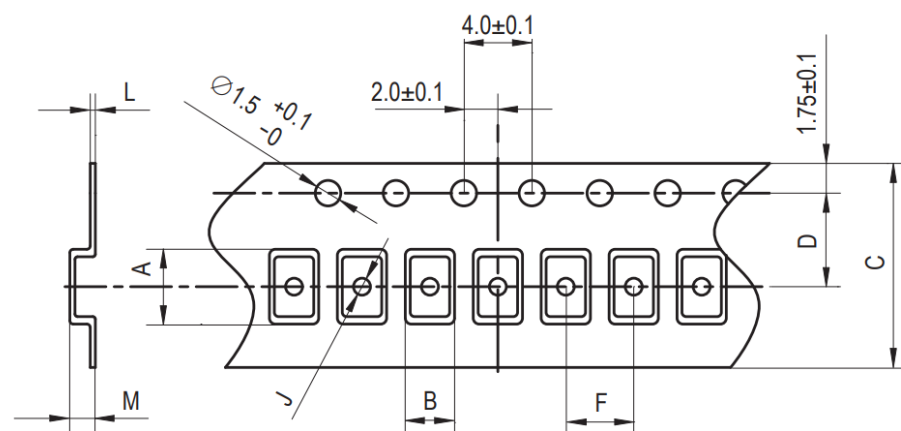
ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS			PACKAGING
			Tolerance Range	Stability	Temp	
ECS	240 = 24.000 MHz See P/N Guide	-36B = ECX-2236B	Blank = Std A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm 7 = ± 7 ppm	Blank = Std D = ± 100 ppm E = ± 50 ppm G = ± 30 ppm H = ± 25 ppm T = ± 20 ppm $\dagger$ W = ± 15 ppm $\dagger$ K = ± 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
2.8	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

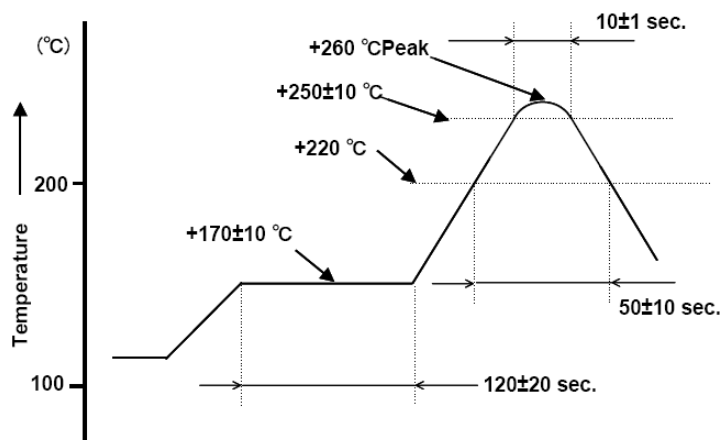


Figure 1) Suggested Reflow Profile