

The sub miniature ECX-1637BQ is a very compact SMD Crystal with low aging and AECQ-200 qualified. The 2.0 x 1.6 x 0.45 mm ceramic package is ideal for automotive and industrial applications.

[Request a Sample](#)

ECX-1637BQ SMD CRYSTAL

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- Low 1st Year Aging ± 1 ppm Max.
- 2.0 x 1.6 mm Footprint
- Extended Temp. Range Option
- AEC-Q200

DIMENSIONS (mm)

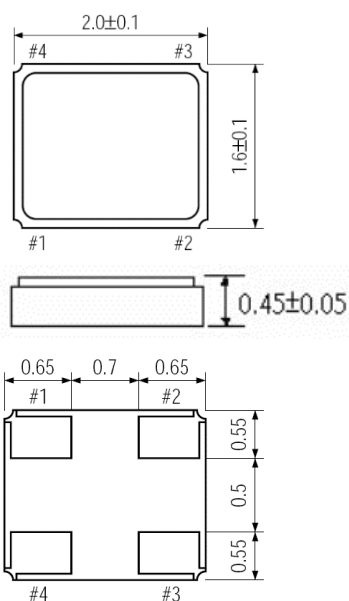
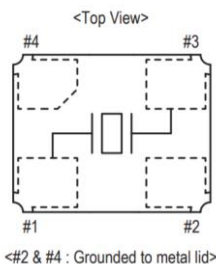


Figure 1) Top, Side, and Bottom

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



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

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

PARAMETERS	CONDITIONS	ECX-1637BQ			UNITS
		MIN	TYP	MAX	
Frequency		16.000		50.000	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			200	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.
16.000 ~ 19.999	150
20.000 ~ 23.999	70
24.000 ~ 39.999	50
40.000 ~ 50.000	40

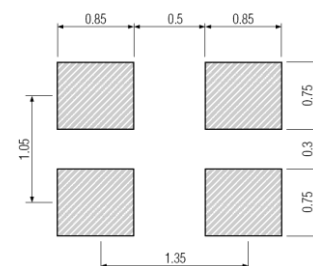


Figure 2) Suggested land

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

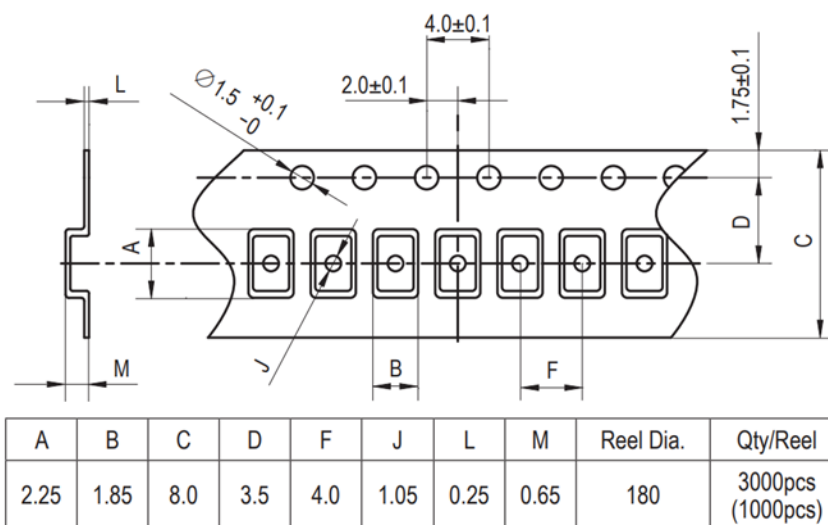
ECS - FREQUENCY ABBREVIATION		LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS			PACKAGING
				Tolerance	Stability	Temp Range	
ECS	240 = 24.000 MHz See P/N Guide	8 = 8 pF 10 = 10 pF S=Series	-37BQ = ECX-1637BQ	Blank = Std A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm 7 = ± 7 ppm	Blank= Std D = ±100 ppm 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.							
Rev.2020							

* Specify available options in P/N.

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

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POCKET TAPE DIMENSIONS (mm)



SOLDER PROFILE

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

2 Cycles Max.

MSL 1, Lead Finish Au

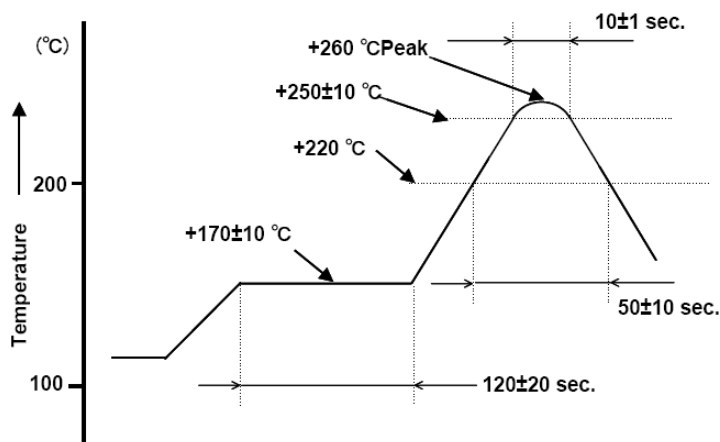


Figure 1) Suggested Reflow Profile

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[ECS:](#)

[ECS-160-12-37BQ-CTN-TR](#) [ECS-240-12-37BQ-CKY-TR](#) [ECS-240-8-37BQ-CKY-TR](#) [ECS-250-10-37BQ-CTN-TR](#)
[ECS-320-10-37BQ-CKY-TR](#) [ECS-320-8-37BQ-CKY-TR](#) [ECS-320-6-37BQ-CTP-TR3](#)