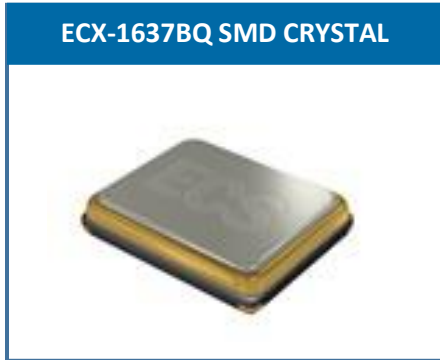


The sub miniature ECX-1637BQ is a very compact SMD Crystal with low aging and AECQ-200 qualified. The 2.0 x 1.6 x 0.45 mm ceramic package is ideal for automotive and industrial applications.

Request a Sample



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

### DIMENSIONS (mm)

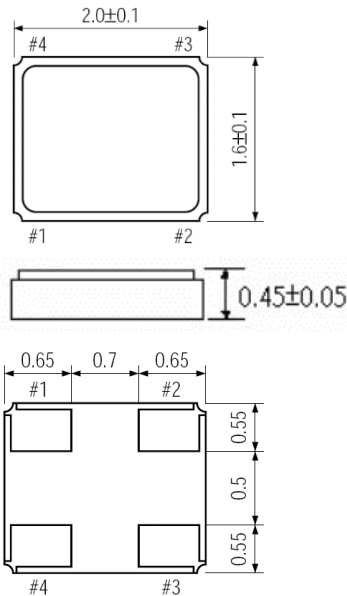
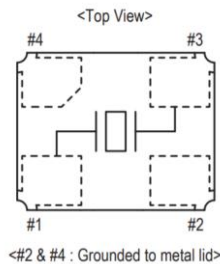


Figure 1) Top, Side, and Bottom

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

### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

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	μW
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 ±3°C			±1	ppm



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

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

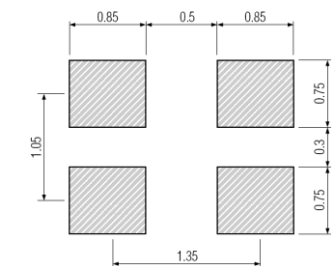


Figure 2) Suggested land

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

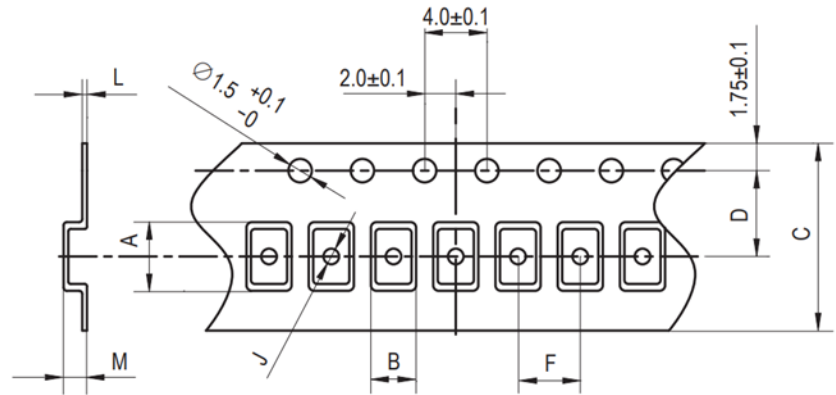
ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS			PACKAGING	
			Tolerance	Stability	Temp Range		
ECS	240 = 24.000 MHz See P/N Guide	8 = 8 pF 10 = 10 pF S=Series	-37BQ = ECX-1637BQ	Blank = Std A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm 7 = ± 7 ppm	Blank= Std D= ±100 ppm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

**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	1.05	0.25	0.65	180	3000pcs (1000pcs)

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

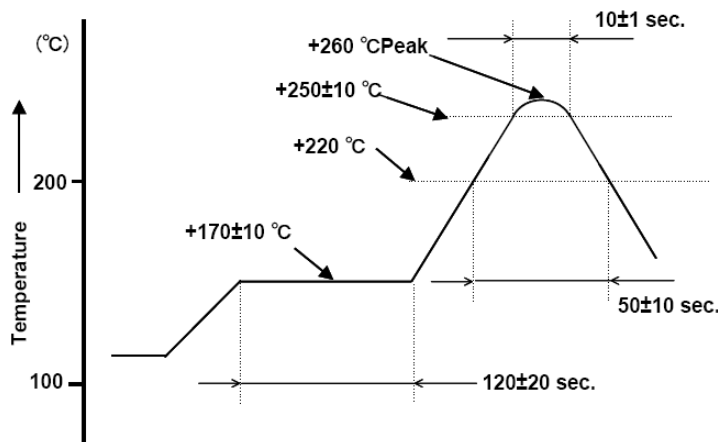


Figure 1) Suggested Reflow Profile

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