

The ECX-1637Q is a miniature SMD Crystal with a 2.0 x 1.6 mm footprint. AEC-Q200 Qualified

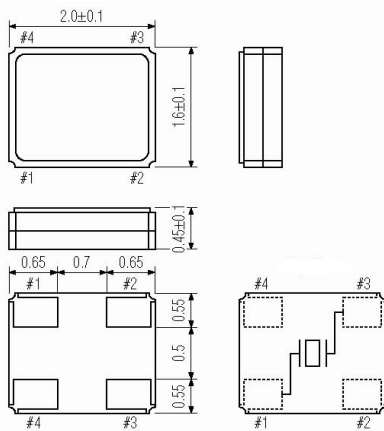
OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- Low Profile
- 2.0 x 1.6 mm Footprint
- RoHS Compliant
- AEC-Q200 Qualified

PARAMETERS	CONDITIONS	ECX-1637Q			UNITS
		MIN	TYP	MAX	
Frequency		16.000		48.000	MHz
Mode of Oscillation	Fundamental				
Frequency Tolerance*	@ +25°C			± 30	ppm
Frequency Stability*	-40 ~ +125°C (ES Option)			± 50	ppm
Shunt Capacitance	Co			5	pF
Load Capacitance	Specify in P/N		8		pF
Drive Level	DL		10	100	μW
Operating Temperature*	T _{opr} (ES Option)	-40		+125	°C
Storage Temperature	T _{stg}	-40		+125	°C
Aging (First Year)	@ +25°C ±3°C			±5	ppm

DIMENSIONS (mm)



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

Frequency (MHz)	ESR Ω Max.
16.000 ~ 19.999	150
20.000 ~ 25.999	100
26.000 ~ 39.999	80
40.000 ~ 48.000	70

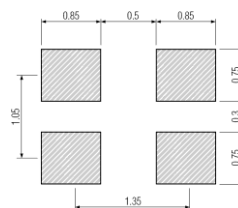


Figure 1) Top, Side, and Bottom

Figure 2) Suggested land pattern

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

PART NUMBERING GUIDE: Example ECS-240-8-37Q-ES-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 S=Series	37Q = ECX-1637Q	Blank = Std A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 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 = Tape & Reel 3K/Reel

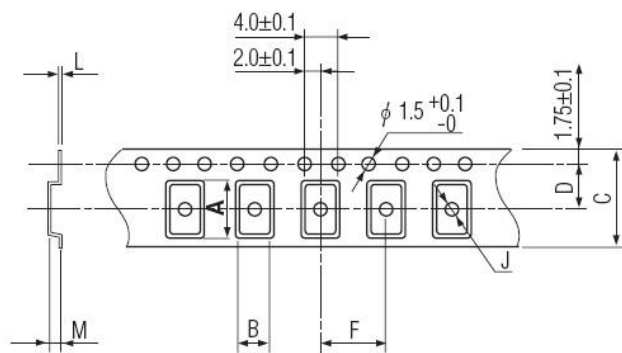
* Specify available options in P/N.

† 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
2.25	1.85	8.0	3.5	4.0	1.0	0.25	0.65	180	3000

SOLDER PROFILE

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

2 Cycles Max.

MSL 1, Lead Finish Au

DEVELOPED FREQUENCIES

Abbreviation	Frequency (MHZ)
192	19.200
200	20.000
240	24.000
245.7	24.5760
250	25.000
260	26.000
270	27.000
271.2	27.120
300	30.000
320	32.000
400	40.000
480	48.000

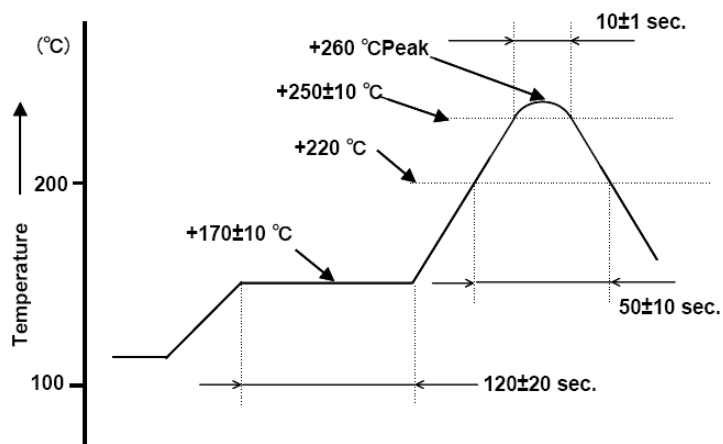


Figure 1) Suggested Reflow Profile