ECX-1637Q
SMD Crystal

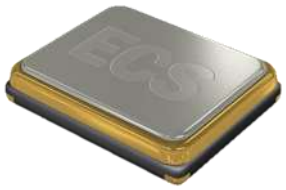
RoHS COMPLIANT

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

Request a Sample

ECS INC INTERNATIONAL®

ECX-1637Q SMD CRYSTAL



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

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-1637Q			UNITS
		MIN	TYP	MAX	
Frequency		16.000		60.000	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*	Topr (ES Option)	-40		+125	°C
Storage Temperature	Tstg	-40		+125	°C
Aging (First Year)	@ +25°C ±3°C			±5	ppm

Frequency (MHz)	ESR Ω Max.
16.000 ~ 19.999	150
20.000 ~ 25.999	100
26.000 ~ 39.999	80
40.000 ~ 60.000	70

DIMENSIONS (mm)

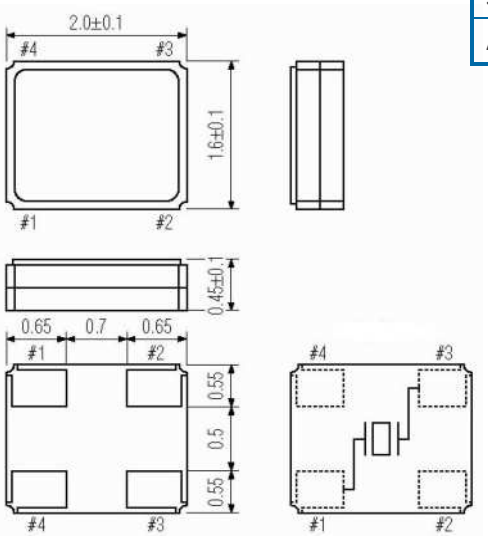


Figure 1) *Top, Side, and Bottom*

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

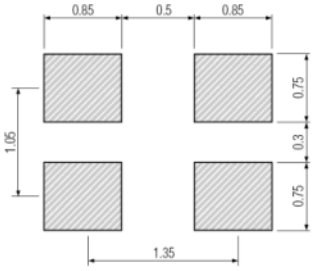


Figure 2) *Suggested land pattern*

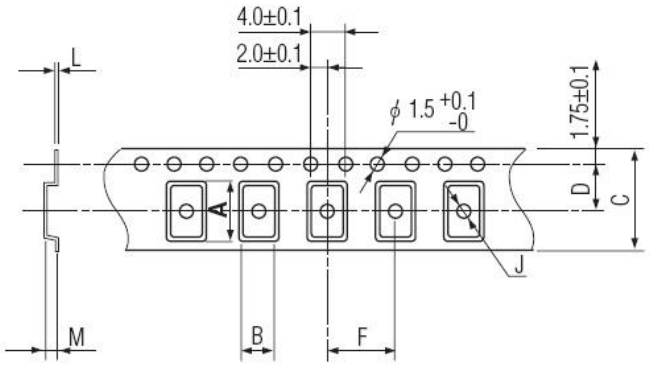
PART NUMBERING GUIDE: Example ECS-240-8-37Q-ES-TR

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 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

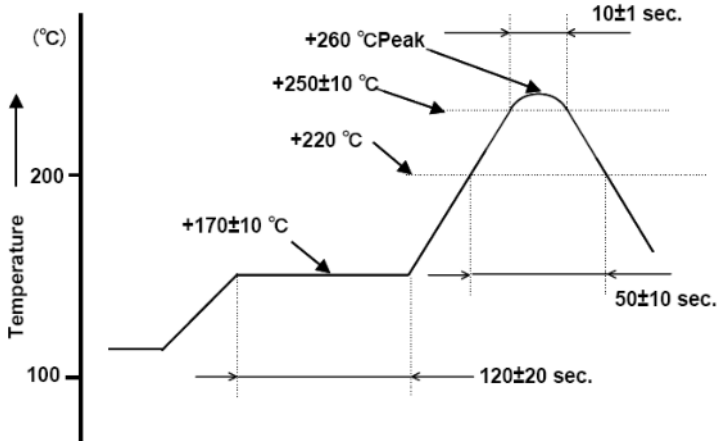


Figure 1) *Suggested Reflow Profile*

DEVELOPED FREQUENCIES	
Abbreviation	Frequency (MHZ)
160	16.000
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
500	50.000