

The ECX-1247Q is a very compact SMD Crystal with a 1.6 x 1.2 mm footprint. AEC-Q200 Qualified.

[Request a Sample](#)

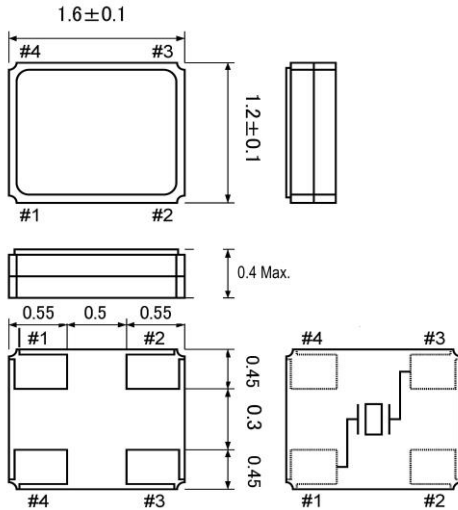
## OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- Low Profile
- 1.6 x 1.2 mm Footprint
- RoHS Compliant
- AEC-Q200 Qualified

PARAMETERS	CONDITIONS	ECX-1247Q			UNITS
		MIN	TYP	MAX	
Frequency		24.000		60.000	MHz
Mode of Oscillation	Fundamental				
Frequency Tolerance*	@ +25°C			± 30	ppm
Frequency Stability*	-40 ~ +125°C (ES Opt)			± 50	ppm
Shunt Capacitance	Co			5	pF
Load Capacitance	Specify in P/N		8		pF
Drive Level	DL		10	100	µW
Operating Temperature*	Topr (S Opt)	-40		+125	°C
Storage Temperature	Tstg	-40		+125	°C
Aging (Per Year)	@ +25°C ±3°C			±5	ppm

### DIMENSIONS (mm)



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

Frequency (MHz)	ESR Ω Max.
24.000 ~ 40.000	150
41.000 ~ 60.000	100

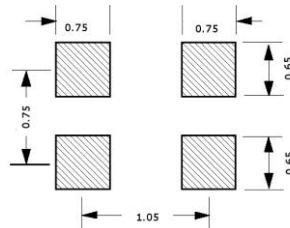


Figure 1) Top, Side, and Bottom

Figure 2) Suggested land pattern

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

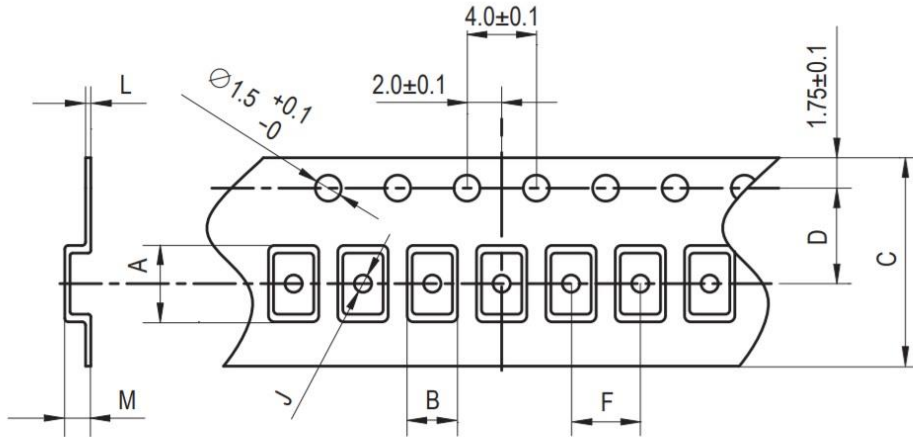
### PART NUMBERING GUIDE: Example ECS-260-8-47Q-CES-TR

ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS			PACKAGING
			Tolerance	Stability	Temp Range	
ECS	260 = 26.000 MHz See P/N Guide	47Q = ECX- 1247Q	Blank = ±30 ppm A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm	D = ±100 ppm E = ± 50 ppm G = ± 30 ppm † H = ± 25 ppm † T = ± 20 ppm † W = ±15 ppm † K = ± 10 ppm †	L = -10 ~ +70°C M = -20 ~ +70°C Y = -30 ~ +85°C N = -40 ~ +85°C P = -40 ~ +105°C S = -40 ~ +125°C	TR = Tape & Reel 1K/Reel

\* Specify available options in P/N.

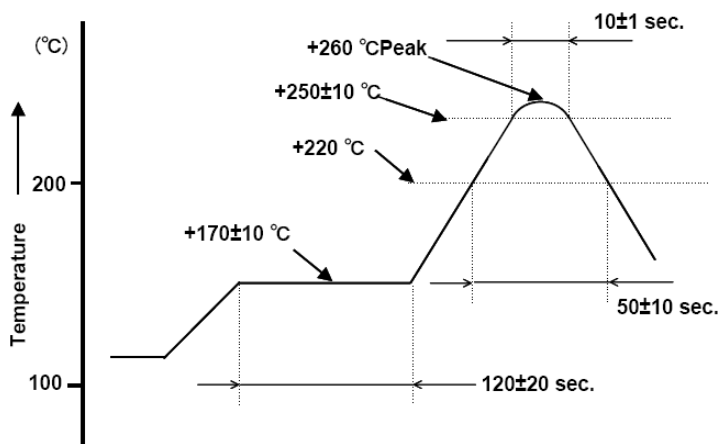
† Contact ECS for availability over extended temp range.

**POCKET TAPE DIMENSIONS (mm)**



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
1.84	1.55	8.0	3.5	4.0	0.5	0.25	0.45	180	1000

<b>SOLDER PROFILE</b>
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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## ECS:

[ECS-271.2-10-47Q-ES-TR](#) [ECS-260-8-47Q-CKM-TR](#) [ECS-320-6-47Q-CTN-TR](#) [ECS-270-8-47Q-CES-TR](#) [ECS-240-10-47Q-CES-TR](#) [ECS-250-10-47Q-CES-TR](#) [ECS-480-8-47Q-CES-TR](#) [ECS-260-8-47Q-CES-TR](#) [ECS-500-8-47Q-CES-TR](#) [ECS-320-8-47Q-CES-TR](#) [ECS-480-8-47Q-JTN-TR](#) [ECS-320-9-47Q-CKM-TR](#) [ECS-400-8-47Q-CES-TR](#) [ECS-300-8-47Q-CES-TR](#)