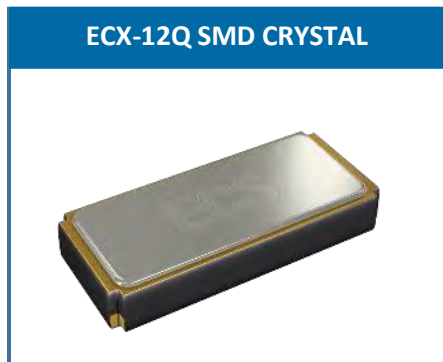




The ultra-miniature ECX-12Q is a very compact SMD AEC-Q200 Qualified Tuning Fork Crystal. The 2.0 x 1.2 x 0.55 mm ceramic package is ideal for today's SMD manufacturing environment.

ECX-12Q SMD 32.768 KHz CRYSTAL



- RoHS Compliant (2011/65/EU)
- MSL: 1
- AEC-Q200 Qualified
- TS16949 certified production
- PPAP Supported

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-12Q			UNITS
		MIN	TYP	MAX	
Frequency			32.768		KHz
Frequency Tolerance	@ +25°C			± 20 *	ppm
Temperature Coefficient		-0.028	-0.034	-0.040	ppm/°C ²
Shunt Capacitance	Co		1.2		pF
Load Capacitance	Specify in P/N		12.5		pF
Drive Level	DL		0.1	0.5	μW
Equivalent Series Resistance	R1			90K	Ω
Insulation Resistance	@ 100V DC	500M			Ω
Turnover Temperature		+20	+25	+30	°C
Operating Temperature	S Option	-40		+125	°C
Storage Temperature	T _{stg}	-55		+125	°C
Aging (First Year)	@ +25°C ±3°C			±3	ppm

DIMENSIONS (mm)

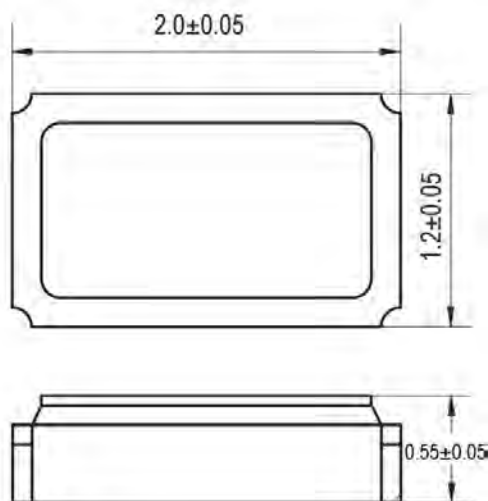
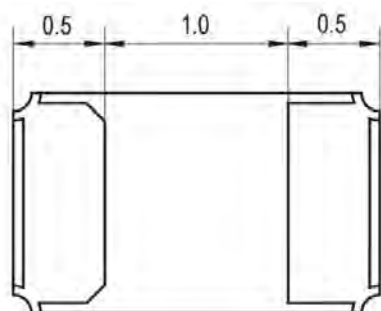


Figure 1) Top, Side, and Bottom views



PAD CONNECTIONS	
1	In/Out
2	Out/In

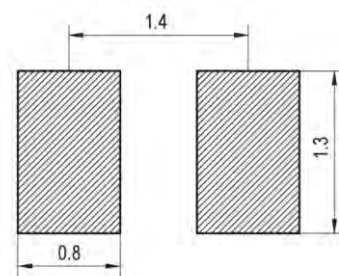


Figure 2) Suggested Land Pattern