

The miniature ECX-16Q is a very compact low ESR SMD AEC-Q200 Tuning Fork Crystal. Low ESR ideal for RTC and low power Microcontrollers.

ECX-16Q SMD CRYSTAL



- Low ESR
- 1.6 x 1.0 mm Footprint
- Extended Temp. Range
- AEC-Q200 Qualified
- Applications: Automotive, COTS, & Industrial

DIMENSIONS (mm)

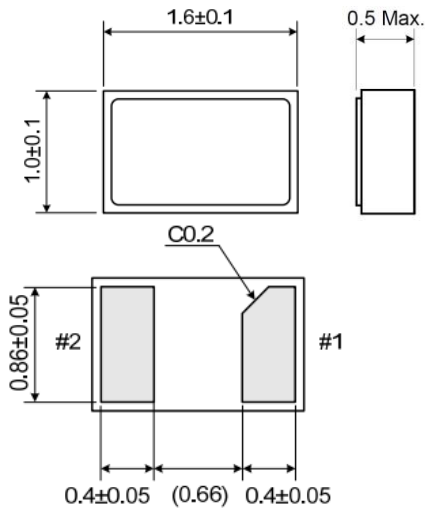
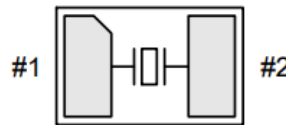


Figure 1) Top, Side, and Bottom views

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-16Q			UNITS
		MIN	TYP	MAX	
Frequency			32.768		KHz
Frequency Tolerance	@ +25°C			± 20 *	ppm
Load Capacitance	Specify in P/N		12.5		pF
Drive Level	DL			0.5	μW
Equivalent Series Resistance	-40 ~ +85°C			70K	Ω
	-40 ~ +85°C			75K	Ω
	-40 ~ +125°C			85K	Ω
Motional Capacitance			7.5		fF
Turnover Temperature		+20	+25	+30	°C
Temperature Coefficient		-0.02	-0.03	-0.040	ppm/°C ²
Shunt Capacitance	Co		1.5		pF
Aging (First Year)	@ +25°C ±3°C			±3	ppm
Operating Temperature	S Option	-40		+125	°C
Storage Temperature	Tstg	-55		+125	°C

Internal Connection
<Top View>



PAD CONNECTIONS

1	In/Out
2	Out/In

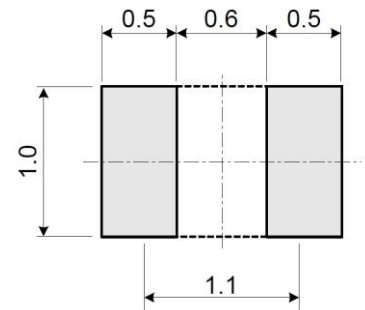


Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-.327-12.5-16Q-S-TR

ECS - FREQUENCY ABBREVIATION

LOAD CAPACITANCE

PACKAGE

CUSTOM OPTIONS

PACKAGING

ECS

.327 = 32.768 KHz

12.5 = 12.5 pF
9 = 9 pF
7 = 7 pF
6 = 6 pF

-16Q =
ECX-16Q

Blank = ±20 ppm
* C = ± 10 ppm

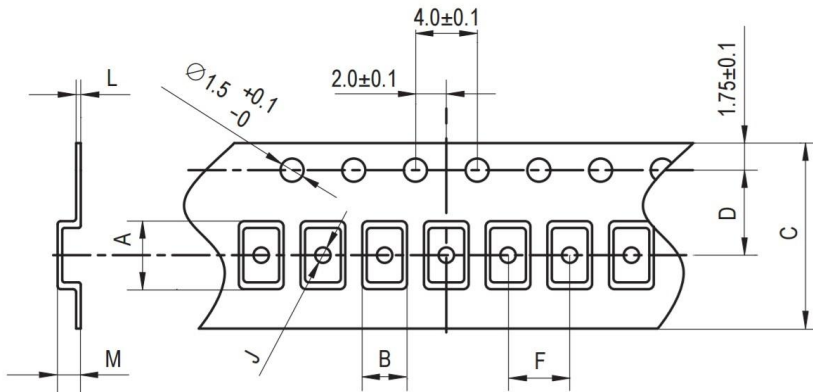
N = -40 ~ +85°C
P = -40 ~ +105°C
S = -40 ~ +125°C

TR = Tape
& Reel

*Contact ECS for availability

Rev.2026

POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
1.85	1.25	8.0	3.5	4.0	0.5	0.25	0.65	180	5000

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

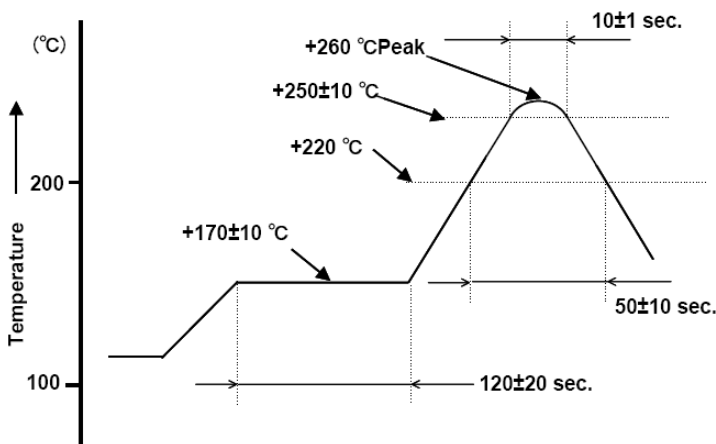


Figure 1) Suggested Reflow Profile