

- ▶ Low Profile
- ▶ 1.6 x 1.0 mm Footprint
- ▶ Extended Temp. Range
- ▶ Lead Finish Au
- ▶ MSL 1
- ▶ RoHS 2 Compliant

ECX-16

SMD TUNING FORK CRYSTAL

The ultra-miniature ECX-16 is a very compact SMD Tuning Fork Crystal. The 1.6 x 1.0 x 0.5 mm ceramic package is ideal for today's SMD manufacturing environment.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-16			UNITS
		MIN	TYP	MAX	
Frequency	Fo		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	R1			90K	Ω
Motional Capacitance			6.5		fF
Turnover Temperature		+20	+25	+30	°C
Temperature Coefficient		-0.02	-0.03	-0.04	ppm/°C ²
Shunt Capacitance	Co		1.3		pF
First Year Aging	+25°C ±3°C			± 3	ppm
Operating Temperature	Topr	-40		+85	°C
Storage Temperature	Tstg	-55		+125	°C

TOP, BOTTOM, SIDE VIEWS & LAND PATTERN

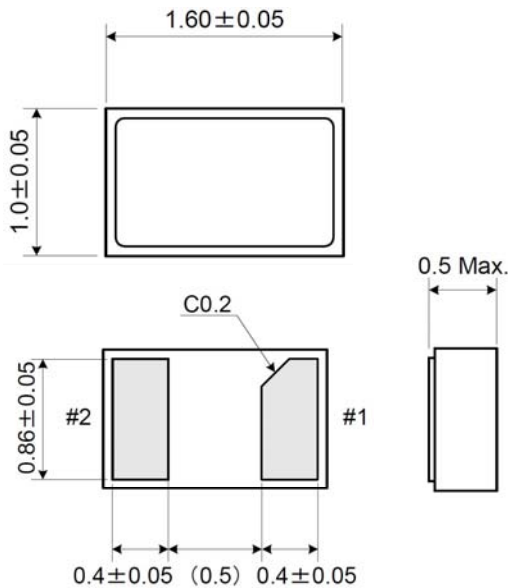


Figure 1) Top, Bottom and Side View

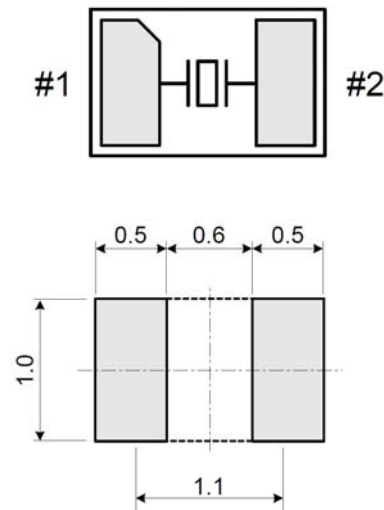


Figure 2) Crystal connection and Suggested Land

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

ECS - Frequency Abbreviation - Load Capacitance - Package Type - Tolerance - Packaging

.327 = 32.768 KHz

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

-16 = ECX-16

Blank = ± 20 ppm
C = ± 10 ppm

-TR = Tape & Reel