

The ECX-53 is our sub miniature SMD crystal with a 3.2 x 5 mm footprint. This package is ideal for today's compact wireless applications where board space is critical.

FEATURES

- Compact and low profile
- RoHS Compliant (Note 7 Exemption)
- Tape & Reel (1000 pcs)

PART NUMBERING GUIDE "EXAMPLE"

	FREQUENCY (16.000 MHz)	LOAD CAPACITANCE*	PACKAGE TYPE**
ECS	- 160	- 20	- 30

* Load capacitance (xx=xx pF, S=series resonance) ** Package Type examples (30=ECX-53)
 Note: See Product Selection Guide for additional options including tighter tolerances or extended temperature range.

OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
FREQUENCY RANGE		12.000		40.000	MHz
CALIBRATION TOLERANCE	@ +25°C			±50*	PPM
FREQUENCY STABILITY ref @25°C	-10 ~ +60°C			±50*	PPM
SHUNT CAPACITANCE				5	pF
LOAD CAPACITANCE	C _L (Customer Specified)	12	16 standard	Series	pF
DRIVE LEVEL	DL			100	µW
OPERATING TEMPERATURE	T _{OPR} **	-10		+60	°C
STORAGE TEMPERATURE	T _{STG}	-40		+85	°C
AGING CHARACTERISTICS (Per Year)	@ +25°C ± 3°C per year			±5	PPM

* Tighter specifications are available. **Extended temperature range available.

EQUIVALENT SERIES RESISTANCE / MODE OF OSCILLATION

FREQUENCY RANGE (MHz)	MODE OF OSC	MAX ESR Ω	FREQUENCY RANGE (MHz)	MODE OF OSC	MAX ESR Ω
14.300 ~ 17.999	Fundamental	100	25.000 ~ 40.000	Fundamental	60
18.000 ~ 24.999	Fundamental	80			

PACKAGE DIMENSIONS (mm)

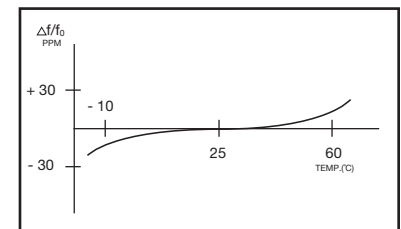
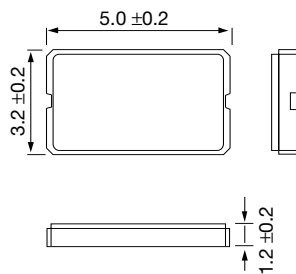


Figure 3) Frequency vs Temperature Curve

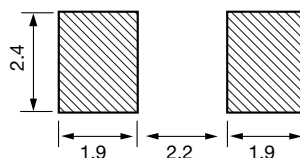
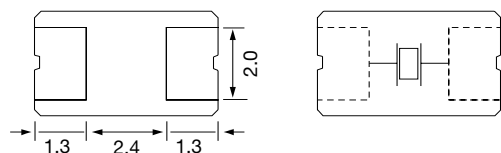


Figure 1) ECX-53 - Top, Side Bottom and End views

Figure 2) Land Pattern