

- ▶ Low profile
- ▶ 3.2 x 2.5 mm Footprint
- ▶ Extended Temp Range Option
- ▶ RoHS Compliant



# ECX-32

## SMD QUARTZ CRYSTAL

The sub miniature ECX-32 is a compact SMD Crystal. The 3.2 x 2.5 x 0.8 mm ceramic package is ideal for today's SMD manufacturing environment.

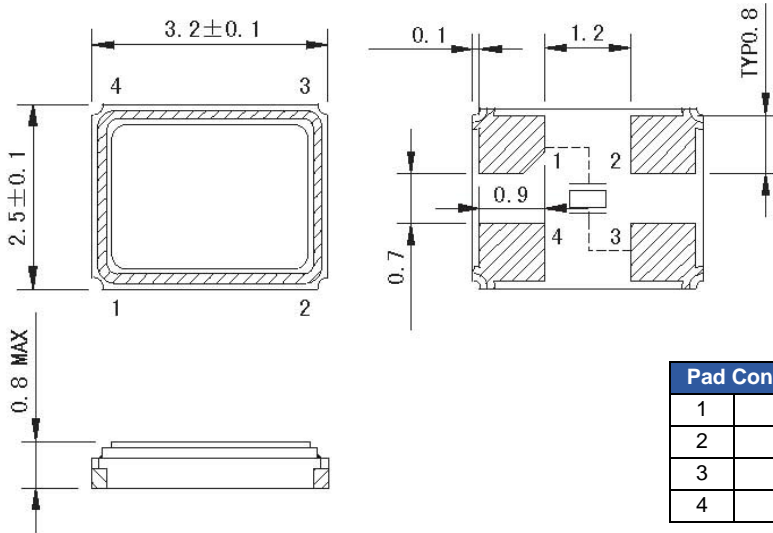
### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-32			UNITS
		MIN	TYP	MAX	
Frequency Range		12.000		50.000	MHz
Frequency Tolerance	at +25°C			± 50 *	ppm
Frequency Stability	-20 to +70°C			± 50 *	ppm
Shunt Capacitance				5	pF
Load Capacitance	Specify in P/N	10	20	Series	pF
Drive Level				100	µW
Operating Temperature		-20		+70	°C
Storage Temperature		-55		+125	°C
Aging (Per Year)	@ +25°C ±3°C			±5	ppm

### EQUIVALENT SERIES RESISTANCE/MODE OF OSCILLATION

FREQUENCY RANGE (MHz)	MODE OF OSC	MAX ESR Ω	FREQUENCY RANGE (MHz)	MODE OF OSC	MAX ESR Ω
12.00 ~ 15.999	Fundamental	100	20.000 ~ 23.999	Fundamental	60
16.000 ~ 19.999	Fundamental	80	24.000 ~ 50.000	Fundamental	40

### DIMENSIONS (mm)



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

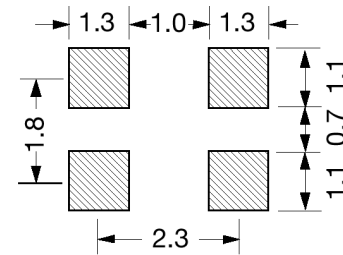


Figure 1) Top, Side, and Bottom views

Figure 2) Suggested Land Pattern

### Custom Options

### PART NUMBERING GUIDE: Example ECS-200-20-33-TR