

- ▶ Compact and low profile
- ▶ RoH Compliant (2011/65/EU)
- ▶ MSL 1
- ▶ Lead Finish: Au
- ▶ AEC-Q200 Qualified

# ECX-53BQ

## SMD QUARTZ CRYSTAL

The ECX-53BQ is a miniature SMD Crystal with a 5.0 x 3.2 mm footprint. AEC-Q200 Qualified.

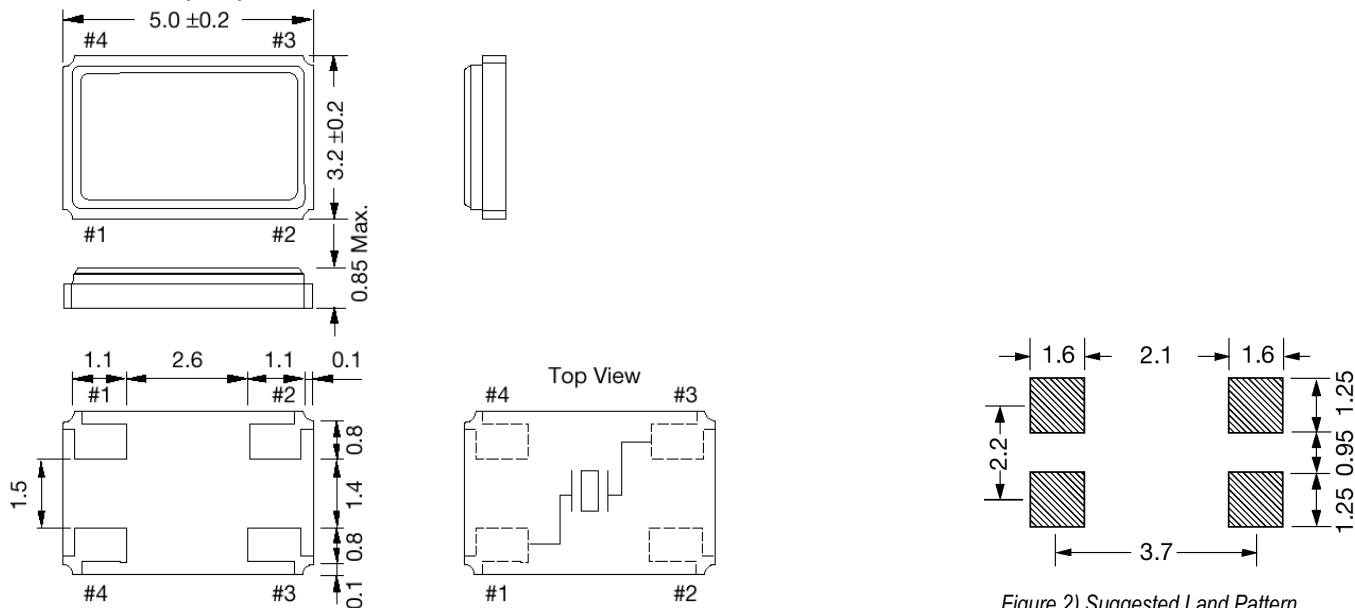
### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-53BQ			UNITS
		MIN	TYP	MAX	
Frequency Range		10.000		40.000	MHz
Frequency Tolerance	at +25°C			± 30 *	ppm
Frequency Stability	-40 to +125°C (DS Option)			± 100 *	ppm
Shunt Capacitance				7	pF
Load Capacitance	Specify in P/N	10	20	Series	pF
Drive Level				100	µW
Operating Temperature	DS Option	-40		+125	°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
10.000 ~ 15.999	Fundamental	80	20.000 ~ 23.999	Fundamental	40
16.000 ~ 19.999	Fundamental	50	24.000 ~ 40.000	Fundamental	30

### DIMENSIONS (mm)



### PART NUMBERING GUIDE: Example ECS-200-20-30BQ-DU-TR

ECS - Frequency Abbreviation - Load Capacitance - Package

200 = 20.000 MHz  
See P/N Guide

20 = 20 pF  
S=Series

30BQ =  
ECX-53BQ

### Custom Options

Tolerance

Blank = Std  
A = ± 25 ppm  
J = ± 20 ppm  
R = ± 15 ppm  
C = ± 10 ppm

\* Stability

Blank = Std  
D = ± 100 ppm  
E = ± 50 ppm  
G = ± 30 ppm  
H = ± 25 ppm  
T = ± 20 ppm  
W = ± 15 ppm  
K = ± 10 ppm

Temp Range

Blank = Std  
M = -20 ~ +70°C  
N = -40 ~ +85°C  
P = -40 ~ +105°C  
S = -40 ~ +125°C  
U = -55 ~ +125°C

Packaging

TR= Tape  
& Reel  
1K/Reel

\*Consult Factory for available stability options over extended temp range.