

- ▶ Compact and low profile
- ▶ Industry Std. Footprint
- ▶ Extended Temp Range Option
- ▶ RoHS Compliant
- ▶ 6 x 3.5 mm (2 Pad)
- ▶ MSL 1
- ▶ Lead Finish: Au

ECX-64A

SMD QUARTZ CRYSTAL

The ECX-64A is a miniature SMD Crystal with a 3.5 x 6 mm 2 pad footprint. This cost effective with a height of 1.1 mm which is ideal for densely populated PCB applications.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-64			UNITS
		MIN	TYP	MAX	
Frequency Range		8.000		100.00	MHz
Frequency Tolerance	at +25°C			± 30 *	ppm
Frequency Stability	-10 to +70°C			± 50 *	ppm
Shunt Capacitance				7	pF
Load Capacitance	Specify in P/N	10	20	Series	pF
Drive Level				100	µW
Operating Temperature *		-10		+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
8.000 ~ 15.999	Fundamental	80	20.000 ~ 49.999	Fundamental	30
16.000 ~ 19.999	Fundamental	60	50.000 ~ 100.000	3rd Overtone	100

DIMENSIONS (mm)

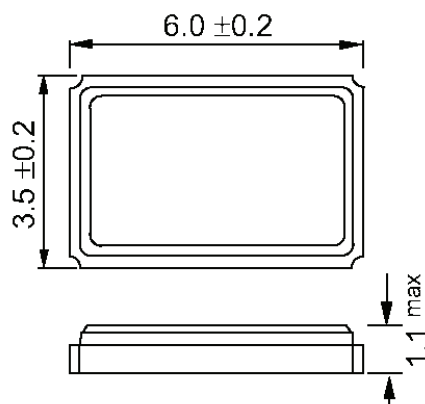


Figure 1) Top, Side, and Bottom views

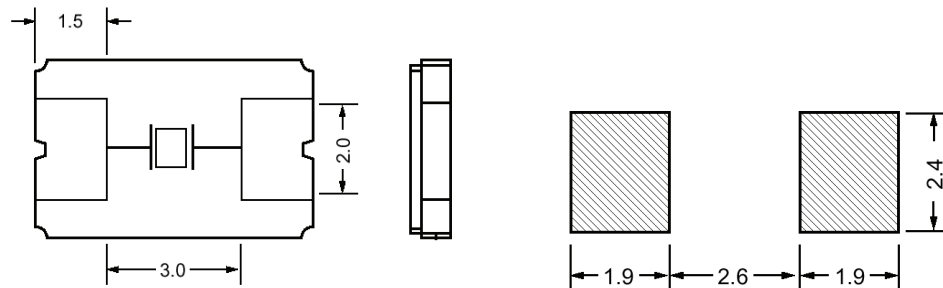


Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-200-20-23A-TR

ECS - Frequency Abbreviation - Load Capacitance - Package

200 = 20.000 MHz
See P/N Guide

20 = 20 pF
S=Series

23A =
ECX-64A

Custom Options

Tolerance

Stability

Temp Range

- Packaging

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

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

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

TR= Tape & Reel
1K/Reel

*Consult Factory for available stability options over extended temp range

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ECS:

[ECS-240-20-23A-EN-TR](#) [ECS-250-20-23A-F-TR](#) [ECS-120-10-23A-GM-TR](#) [ECS-143-20-23A-TR](#) [ECS-147.4-20-23A-EN](#) [ECS-240-12-23A-TR](#) [ECS-120-18-23A-EN-TR](#) [ECS-122.8-18-23A-EN-TR](#) [ECS-135.6-18-23A-EN-TR](#) [ECS-143-18-23A-EN-TR](#) [ECS-147.4-18-23A-EN-TR](#) [ECS-160-18-23A-EN-TR](#) [ECS-184-18-23A-EN-TR](#) [ECS-196.6-18-23A-EN-TR](#) [ECS-200-18-23A-EN-TR](#) [ECS-221-18-23A-EN-TR](#) [ECS-240-18-23A-EN-TR](#) [ECS-245.7-18-23A-EN-TR](#) [ECS-250-18-23A-EN-TR](#) [ECS-270-18-23A-EN-TR](#) [ECS-286.3-18-23A-EN-TR](#) [ECS-330-18-23A-EN-TR](#) [ECS-400-18-23A-EN-TR](#) [ECS-480-18-23A-EN-TR](#) [ECS-320-18-23A-EN-TR](#) [ECS-120-20-23A-TR](#) [ECS-240-20-23A-TR](#) [ECS-250-18-23A-TR](#) [ECS-270-20-23A-TR](#) [ECS-184-20-23A-EN-TR](#) [ECS-200-20-23A-EN-TR](#) [ECS-160-20-23A-EN-TR](#) [ECS-160-S-23A-EN-TR](#) [ECS-240-S-23A-EN-TR](#) [ECS-143-20-23A-EN-TR](#) [ECS-196-20-23A-EN-TR](#) [ECS-200-S-23A-EN-TR](#) [ECS-196-S-23A-EN-TR](#) [ECS-147-20-23A-EN-TR](#) [ECS-160-18-23A-JGN-TR](#) [ECS-200-18-23A-JGN-TR](#) [ECS-098.3-18-23A-JGN-TR](#) [ECS-100-18-23A-JGN-TR](#) [ECS-480-18-23A-JGN-TR](#) [ECS-120-18-23A-JGN-TR](#) [ECS-184-18-23A-JGN-TR](#) [ECS-196.6-18-23A-JGN-TR](#) [ECS-250-18-23A-JGN-TR](#) [ECS-240-18-23A-JGN-TR](#) [ECS-143-18-23A-JGN-TR](#) [ECS-147.4-18-23A-JGN-TR](#) [ECS-080-18-23A-JGN-TR](#) [ECS-110.5-18-23A-JGN-TR](#) [ECS-240-20-23A-EN](#)