ECX-53B

SMD QUARTZ CRYSTAL

- Compact and low profile
- Industry Std. Footprint
- Extended Temp Range Option
- RoHS Compliant

The ECX-53B is a miniature SMD Crystal with a 3.2 x 5 mm footprint. This package is ideal for todays compact wireless applications where board space is critical.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-53B			UNITS
		MIN	TYP	MAX	
Frequency Range		8.000		150.000	MHz
Frequency Tolerance	at +25°C			± 30 *	ppm
Frequency Stability	-20 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		-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
8.00 ~ 9.999	Fundamental	100	20.000 ~ 23.999	Fundamental	40
10.000 ~ 15.999	Fundamental	80	24.000 ~ 50.000	Fundamental	30
16.000 ~ 19.999	Fundamental	50	50.100 ~ 150.000	3rd Overtone	80

DIMENSIONS (mm)

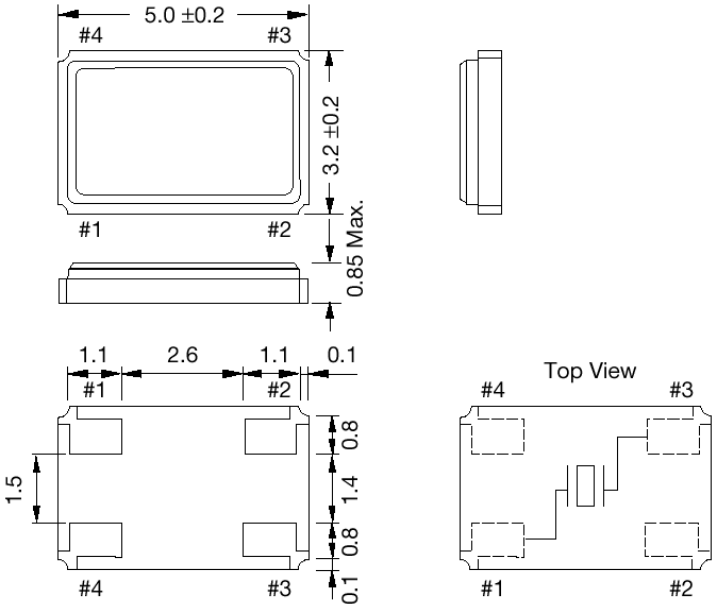


Figure 1) Top, Side, Bottom and End views

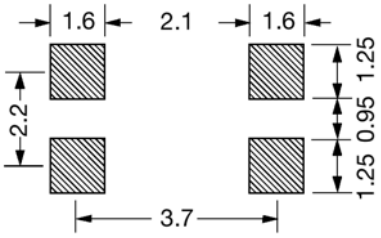


Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-200-20-30B-TR

ECS - Frequency Abbreviation - Load Capacitance - Package | Custom Options: **Tolerance * Stability Temp Range** - **Packaging**

Frequency Abbreviation	Load Capacitance	Package	Tolerance	* Stability	Temp Range	Packaging
200 = 20.000 MHz See P/N Guide	20 =20 pF S=Series	30B = ECX-53B	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.*

Rev. 8/11

1105 South Ridgeview Road • Olathe, KS 66062 • Phone: 913.782.7787 • Fax: 913.782.6991 • www.ecsxtal.com

Mouser Electronics

Authorized Distributor

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

ECS:

ECS-100-20-30B-TR ECS-300-20-30B-TR ECS-320-S-30B-TR ECS-400-S-30B-TR ECS-500-S-30B-TR ECS-120-20-30B-TR ECS-143-20-30B-TR ECS-160-20-30B-TR ECS-200-20-30B-TR ECS-240-20-30B-TR ECS-245-20-30B-TR ECS-250-20-30B-TR ECS-270-20-30B-TR ECS-270-S-30B-TR ECS-300-S-30B-TR ECS-320-20-30B-TR ECS-360-20-30B-TR ECS-360-S-30B-TR ECS-400-20-30B-TR ECS-500-20-30B-TR ECS-100-8-30B-CKM ECS-120-8-30B-CKM ECS-130-8-30B-CKM ECS-135.6-8-30B-CKM ECS-160-8-30B-CKM ECS-192-8-30B-CKM ECS-200-8-30B-CKM ECS-240-8-30B-CKM ECS-250-8-30B-CKM ECS-260-8-30B-CKM ECS-300-8-30B-CKM ECS-320-8-30B-CKM ECS-353.28-12-30BEN-TR