RoHS COMPLIANT

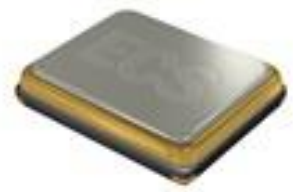
ECX-53B
SMD CRYSTAL

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.

Request a Sample

ECS INC INTERNATIONAL®

ECX-53B SMD CRYSTAL



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

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-53B			UNITS
		MIN	TYP	MAX	
Frequency		8.000		50.000	MHz
Mode of Oscillation	Fundamental				
Frequency Tolerance*	@ +25°C			± 30	ppm
Frequency Stability*	-20 ~ +70°C			± 50	ppm
Shunt Capacitance	Co			5	pF
Load Capacitance	Specify in P/N	8	20	Series	pF
Drive Level	DL			100	µW
Operating Temperature*	Topr	-20		+70	°C
Storage Temperature	Tstg	-55		+125	°C
Aging (First Year)	@ +25°C ±3°C			±5	ppm

DIMENSIONS (mm)

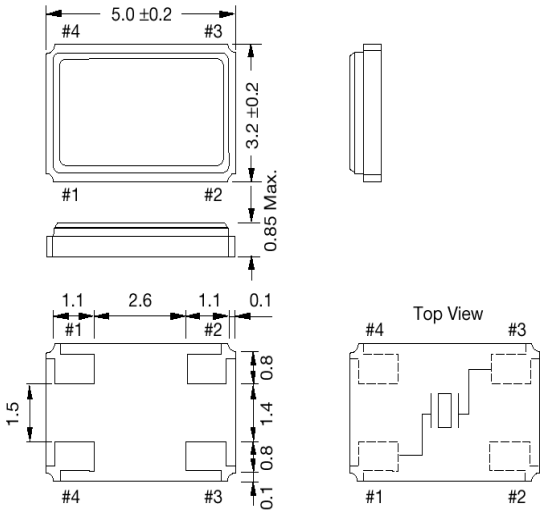


Figure 1) *Top, Side, and Bottom*

Crystal is symmetrical, pad 1 & 3 are interchangeable. Chamfer on the bottom pad has no electrical significance.

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

Frequency (MHz)	ESR Ω Max.
8.000 ~ 9.999	100
10.000 ~ 15.999	80
16.000 ~ 19.999	50
20.000 ~ 23.999	40
24.000 ~ 50.000	30

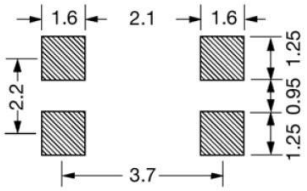


Figure 2) *Suggested land*

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

ECS -	FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS			PACKAGING
				Tolerance	Stability	Temp Range	
ECS	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 L = -10 ~ +70°C M = -20 ~ +70°C Y = -30 ~ +85°C N = -40 ~ +85°C P = -40 ~ +105°C S = -40 ~ +125°C U = -55 ~ +125°C	TR = Tape & Reel 1K/Reel

* Specify available options in P/N.

† Contact ECS for availability over extended temp range.

Rev.2017

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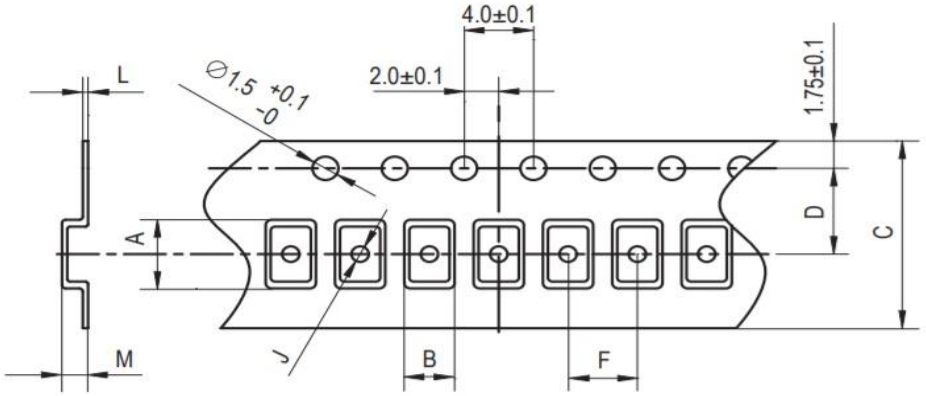
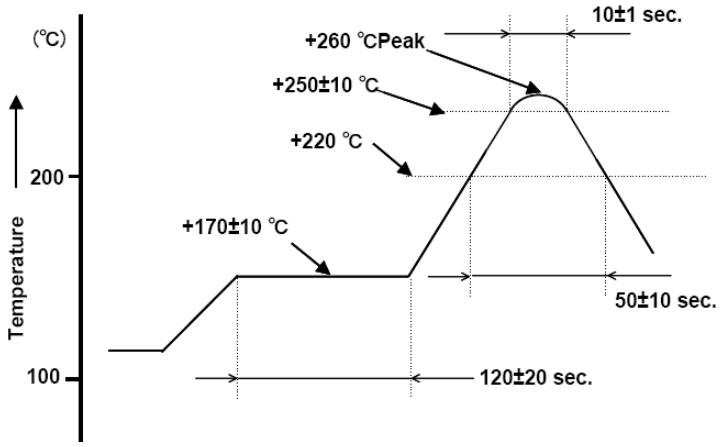
POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
5.4	3.5	12.0	5.5	8.0	1.6	0.25	1.0	180	1000pcs

SOLDER PROFILE
Peak solder Temp +260°C Max 10 sec Max.
2 Cycles Max.
MSL 1, Lead Finish Au



DEVELOPED FREQUENCIES	
Abbreviation	Frequency (MHZ)
080	8.000
100	10.000
120	12.000
122.8	12.288
160	16.000
200	20.000
240	24.000
245.7	24.576
250	25.000
270	27.000
300	30.000
360	36.000
500	50.000

Figure 1) *Suggested Reflow Profile*