

The ECX-53Q is a miniature SMD Crystal with a 3.2 x 5 x 1.1 mm ceramic package. AEC-Q200 Qualified.

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ECX-53Q SMD CRYSTAL

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-53Q			UNITS
		MIN	TYP	MAX	
Frequency		8.000		54.000	MHz
Mode of Oscillation	Fundamental				
Frequency Tolerance*	@ +25°C			± 30	ppm
Frequency Stability*	-40 ~ +125°C (DS Option)			± 100	ppm
Shunt Capacitance	Co			5	pF
Load Capacitance	Specify in P/N	6	20	Series	pF
Drive Level	DL			300	μW
Operating Temperature*	T _{opr} (Y Option)	-40		+150	°C
Storage Temperature	T _{stg}	-55		+150	°C
Aging (First Year)	@ +25°C ±3°C			±5	ppm

- Compact and low profile
- Extended Temp. Range Option
- RoHS Compliant
- AEC-Q200 Qualified

DIMENSIONS (mm)

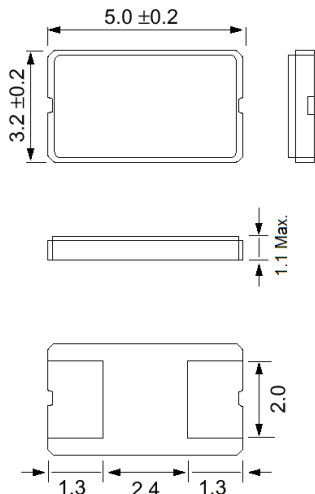


Figure 1) Top, Side, and Bottom

Crystal is symmetrical, pad 1 & 2 are interchangeable..

Frequency (MHz)	ESR Ω Max.
8.000 ~ 11.999	100
12.000 ~ 13.999	60
14.000 ~ 19.999	50
20.000 ~ 54.000	40

Pad Connections

1	In/Out
2	Out/In

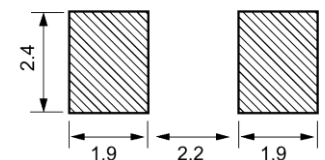


Figure 2) Suggested land

PART NUMBERING GUIDE: Example ECS-200-8-30Q-VY-TR

ECS - FREQUENCY ABBREVIATION		LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS			PACKAGING
				Tolerance	Stability	Temp Range	
ECS	200 = 20.000 MHz See P/N Guide	8 = 8 pF S = Series	30Q = ECX-53Q	Blank = ±30 ppm A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm	V= ± 150 ppm D= ± 100 ppm E = ± 50 ppm G = ± 30 ppm H = ± 25 ppm T = ± 20 ppm † W = ± 15 ppm † K = ± 10 ppm †	L = -10 ~ +70°C M = -20 ~ +70°C N = -40 ~ +85°C P = -40 ~ +105°C S = -40 ~ +125°C U = -55 ~ +125°C Y = -40 ~ +150°C	TR = Tape & Reel 1K/Reel

* Specify available options in P/N.

† Contact ECS for availability over extended temp range.

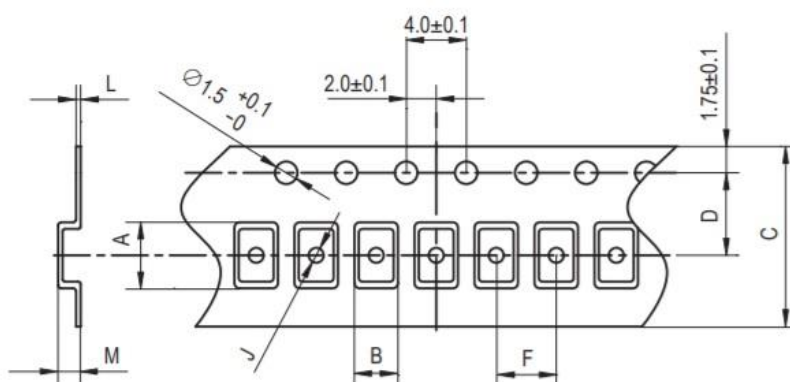
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POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
5.5	3.7	12.0	5.5	8.0	1.5	0.3	1.65	180	1000pcs

SOLDER PROFILE

Peak solder Temp $+260^{\circ}\text{C}$ Max 10 sec Max.

2 Cycles Max.

MSL 1, Lead Finish Au

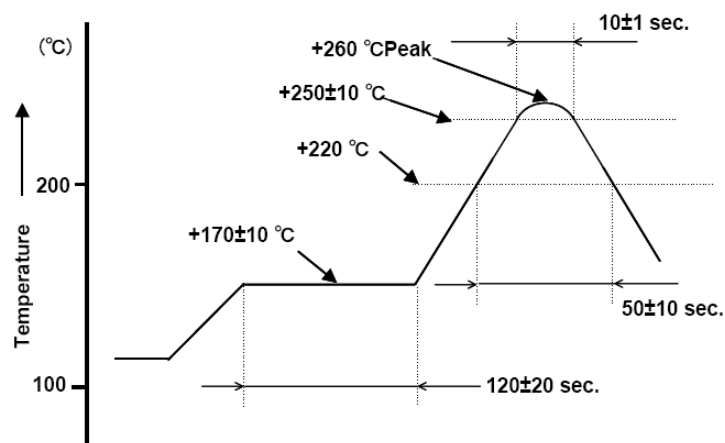


Figure 1) Suggested Reflow Profile

Mouser Electronics

Authorized Distributor

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ECS:

[ECS-80-8-30Q-VY-TR](#) [ECS-120-12-30Q-EN-TR](#) [ECS-286.3-20-30Q-EN-TR](#) [ECS-200-8-30Q-VY-TR](#) [ECS-100-8-30Q-VY-TR](#) [ECS-160-12-30Q-VS-TR](#) [ECS-80-12-30Q-DS-TR](#) [ECS-160-8-30Q-VY-TR](#) [ECS-120-8-30Q-VY-TR](#) [ECS-250-12-30Q-VS-TR](#) [ECS-80-8-30Q-VS-TR](#) [ECS-81.92-12-30Q-EN-TR](#) [ECS-250-120-30Q-VS-TR](#)