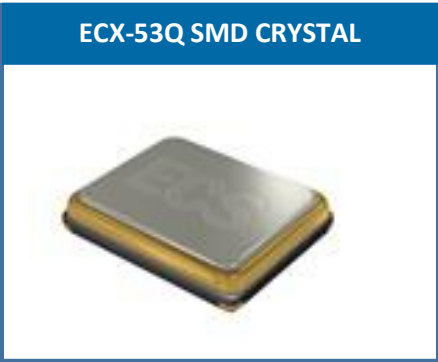


The ECX-53Q is a miniature SMD Crystal with a 3.2 x 5 x 1.1 mm ceramic package. AEC-Q200 Qualified.

[Request a Sample](#)



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

### DIMENSIONS (mm)

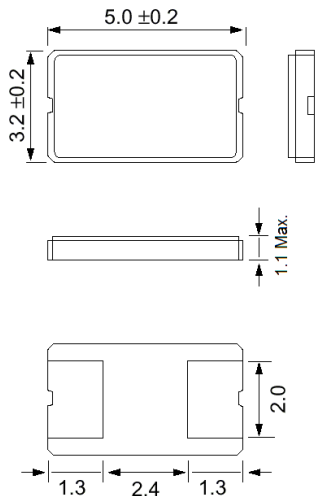


Figure 1) Top, Side, and Bottom

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

### 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 <sub>opr</sub> (Y Option)	-40		+150	°C
Storage Temperature	T <sub>stg</sub>	-55		+150	°C
Aging (First Year)	@ +25°C ±3°C			±5	ppm

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

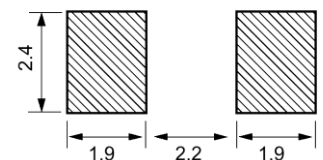


Figure 2) Suggested land

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

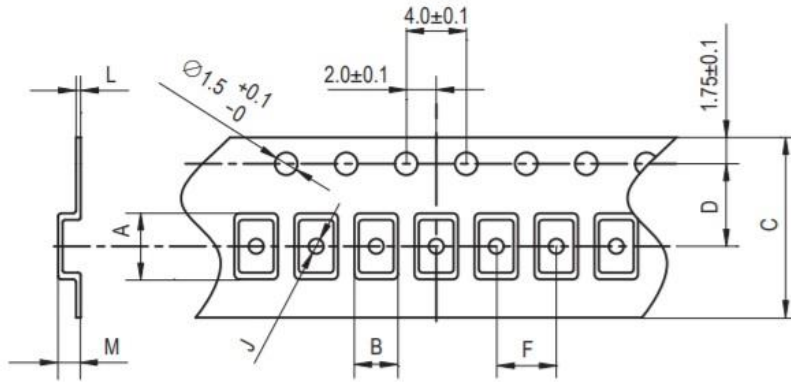
ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS			PACKAGING	
			Tolerance	Stability	Temp Range		
ECS	200 = 20.000 MHz See P/N Guide	8 = 8 pF S = Series	30Q = ECX-53Q	Blank = ±30 ppm A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm	V = ± 150 ppm D = ± 100 ppm E = ± 50 ppm G = ± 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.

Rev.2019

**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°C Max 10 sec Max.
2 Cycles Max.
MSL 1, Lead Finish Au

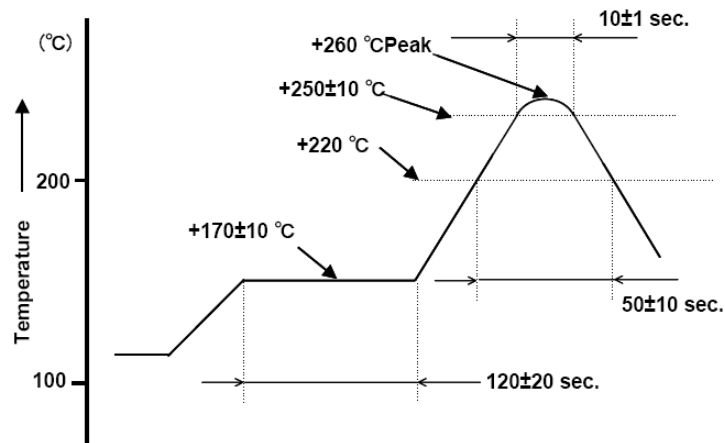


Figure 1) Suggested Reflow Profile

# Mouser Electronics

Authorized Distributor

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[ECS:](#)

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