

The CSM-3X is the miniature low profile resistance weld type SMD quartz crystal. Reduces footprint of CSM-7X (HC-49USX SMD) by 50%.

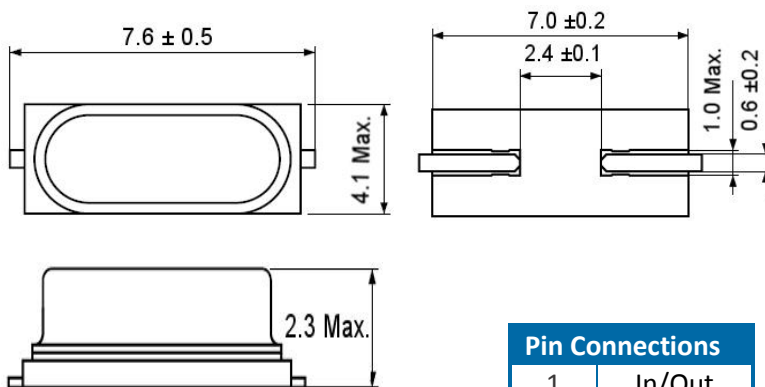
CSM-3X SMD CRYSTAL

CSM-3X SMD CRYSTAL



- Cost Effective
- Low Profile
- Extended Temp. Range Option
- Pb Free/RoHS Compliant

DIMENSIONS (mm)



Pin Connections

1	In/Out
2	Out/In

Frequency (MHz)	ESR Ω Max.
6.000 ~ 11.999	200
12.000 ~ 15.999	60
16.000 ~ 29.999	50
30.000 ~ 40.000	40

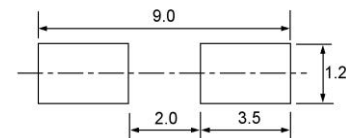


Figure 1) Top, Side, and Bottom

Crystal is symmetrical, pin 1 & 2 are interchangeable.

Figure 2) Suggested land

PART NUMBERING GUIDE: Example ECS-200-20-3X-TR

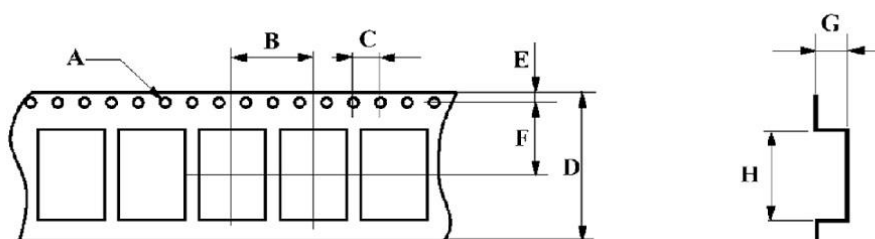
ECS - FREQUENCY ABBREVIATION		LOAD CAPACITANCE	PACKAGE	AVAILABLE OPTIONS			PACKAGING
				Tolerance	Stability	Temp Range	
ECS	200 = 20.000 MHz See P/N Guide	20 = 20 pF S = Series	3X = CSM-3X	Blank = Std A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm	Blank= Std D= ±100 ppm E = ± 50 ppm G = ± 30 ppm 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 3K/Reel
* Specify available options in P/N.							
† Contact ECS for availability over extended temp range.							
Rev.2017							

* Specify available options in P/N.

† Contact ECS for availability over extended temp range.

Rev.2017

POCKET TAPE DIMENSIONS (mm)



TAPE SPECIFICATIONS (mm)								
MODEL	A	B	C	D	E	F	G	H
CSM-3X	φ 1.5	8.0	4.0	16.0	2.50	7.5	2.5	9.4

SOLDER PROFILE

Peak solder Temp +260°C Max 10 sec Max.

2 Cycles Max.

MSL 1, Lead Finish Sn/Cu Matte

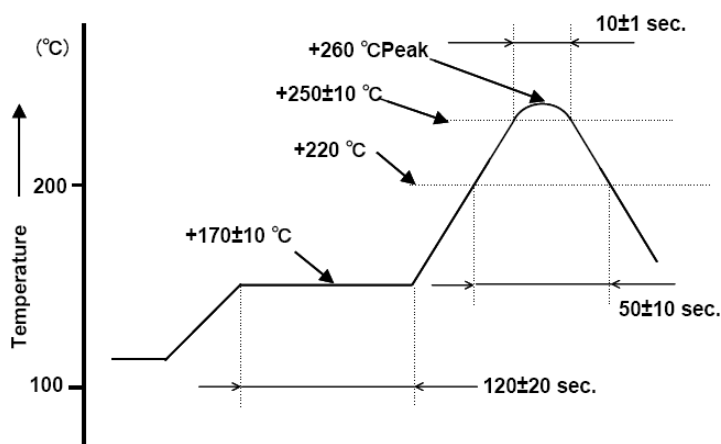


Figure 1) Suggested Reflow Profile