

The CSM-4AX is an excellent choice for a low cost SMD crystal. The CSM-4AX (28AX) has a case height of 5.0 mm Max. in a resistance weld metal package. Lower profile package height of 4.0 mm Max. is available with the (28ALX) package.

[Request a Sample](#)

CSM-4AX SMD CRYSTAL

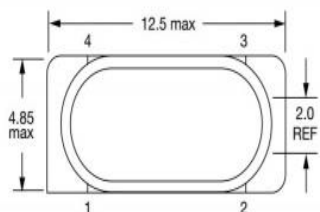


- Cost Effective
- Low Profile
- Industry Standard Footprint
- Pb Free/RoHS Compliant

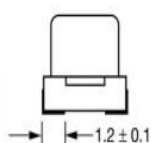
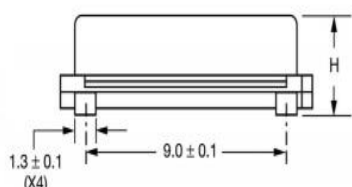
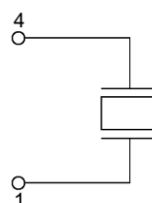
OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	CSM-4AX			UNITS
		MIN	TYP	MAX	
Frequency		3.57		30.000	MHz
Mode of Oscillation	Fundamental				
Frequency Tolerance*	@ +25°C			± 30	ppm
Frequency Stability*	-10 ~ +70°C			± 50	ppm
Shunt Capacitance	Co			7	pF
Load Capacitance	Specify in P/N	10	20	Series	pF
Drive Level	DL			500	μW
Operating Temperature*	T _{opr}	-10		+70	°C
Storage Temperature	T _{stg}	-55		+125	°C
Aging (First Year)	@ +25°C ±3°C			±5	ppm

DIMENSIONS (mm)



Height "H" MAX	
-28AX	-5.0 mm
-28ALX	-4.0 mm



Frequency (MHz)	ESR Ω Max.
3.57 ~ 4.999	200
5.000 ~ 5.999	150
6.000 ~ 6.999	100
7.000 ~ 8.999	80
9.000 ~ 12.999	60
13.000 ~ 19.999	40
20.000 ~ 30.000	30

Figure 1) Top, Side, and End

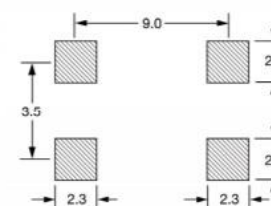


Figure 2) Suggested land

PART NUMBERING GUIDE: Example ECS-200-20-28AX-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	28AX = 5.0 mm 28ALX = 4.0 mm	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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[12.000MHZ-18-R80-D2Y-T](#) [FKT26EIHQ0.032768-BAG1K](#) [FC4STCBMF10.0](#) [FO3HSKDM33.333-T1](#) [MS1V-T1K-32.768kHz-9pF-20PPM-](#)
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