

- ▶ -40 to +85°C Temp Range
- ▶ Industry Std. Footprint
- ▶ Pb Free/RoHS Compliant

CSM-7XDN

SMD CRYSTAL

The CSM-7XDN is the industrial temperature range version of our standard CSM-7X crystal.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	CSM-7XDN			UNITS
		MIN	TYP	MAX	
Frequency Range	f_o	3.57		70.000	MHz
Frequency Tolerance	at +25°C			± 30	ppm
Frequency Stability	-40 to +85°C			± 100	ppm
Shunt Capacitance	C_o			7	pF
Load Capacitance (CL)	Specify in P/N	10	20	Series	pF
Drive Level				500	μW
Operating Temperature		-40		+85	°C
Storage Temperature		-55		+125	°C
Aging (Per Year)	@ +25°C ±3°C			±5	ppm

EQUIVALENT SERIES RESISTANCE/MODE OF OSCILLATION

FREQUENCY RANGE (MHz)	MODE OF OSC	MAX ESR Ω	FREQUENCY RANGE (MHz)	MODE OF OSC	MAX ESR Ω
3.57 ~ 4.999	Fundamental	150	13.000 ~ 19.999	Fundamental	40
5.000 ~ 5.999	Fundamental	80	20.000 ~ 30.000	Fundamental	30
6.000 ~ 6.999	Fundamental	70	26.000 ~ 39.999	3rd Overtone	100
7.000 ~ 8.999	Fundamental	60	40.000 ~ 70.000	3rd Overtone	80
9.000 ~ 12.999	Fundamental	50			

PACKAGE DIMENSIONS (mm)

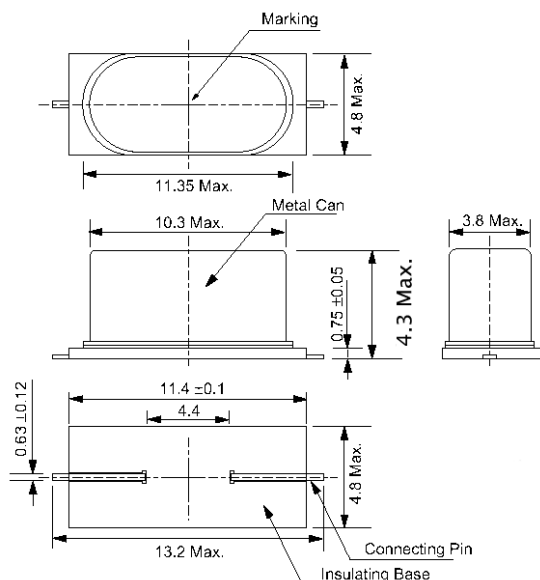


Figure 1) Top, Side, Bottom and End views

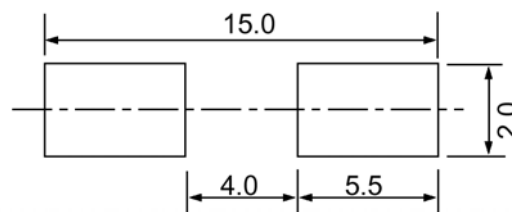


Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-200-20-5PXD-N-TR

ECS - Frequency Abbreviation - Load Capacitance - Package

200 = 20.000 MHz
See P/N Guide

20 = 20 pF
S=Series

5PX = CSM-7X

Stability

D= ± 100 ppm

Temperature - Packaging

N= -40 ~ +85°C

TR= Tape & Reel
1K/Reel

AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit www.ameya360.com

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692

Email amall@ameya360.com

QQ 800077892

Skype ameyasales1 ameyasales2

➤ Customer Service :

Email service@ameya360.com

➤ Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com