



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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- ▶ 2.6 mm Height
- ▶ Industry Std. Footprint
- ▶ Pb Free/RoHS Compliant

CSM-7SSX

Low Profile SMD Crystal



OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

| PARAMETERS | CONDITIONS | CSM-7SSX | | | UNITS |
|-----------------------|----------------|----------|-----|--------|-------|
| | | MIN | TYP | MAX | |
| Frequency Range | | 3.57 | | 50.000 | MHz |
| Frequency Tolerance | at +25°C | | | ± 30 | ppm |
| Frequency Stability | -10 to +70°C | | | ± 50 | ppm |
| Shunt Capacitance | | | | 5 | pF |
| Load Capacitance | Specify in P/N | 10 | 20 | Series | pF |
| Drive Level | | | | 500 | µW |
| Operating Temperature | | -10 | | +70 | °C |
| Storage Temperature | | -40 | | +105 | °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 | 50 |
| 5.000 ~ 5.999 | Fundamental | 120 | 20.000 ~ 30.000 | Fundamental | 40 |
| 6.000 ~ 6.999 | Fundamental | 100 | 26.000 ~ 39.999 | 3rd Overtone | 100 |
| 7.000 ~ 8.999 | Fundamental | 80 | 40.000 ~ 50.000 | 3rd Overtone | 80 |
| 9.000 ~ 12.999 | Fundamental | 60 | | | |

DIMENSIONS (mm)

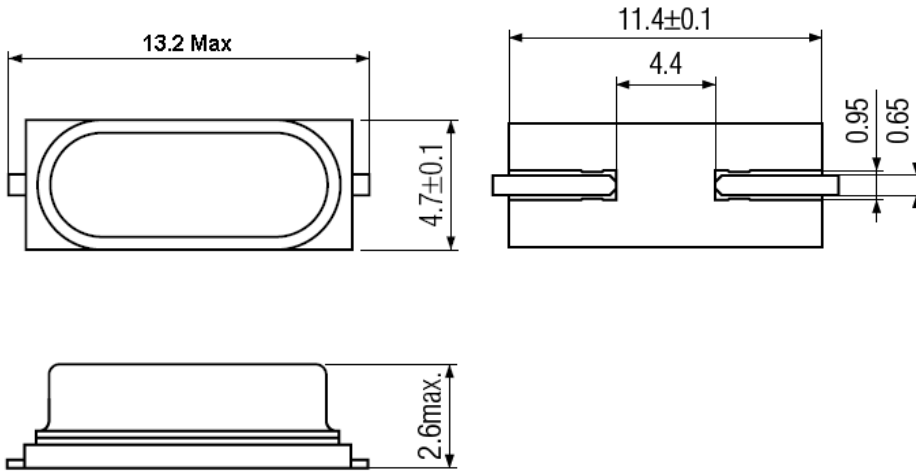


Figure 1) Top, Side and Bottom views

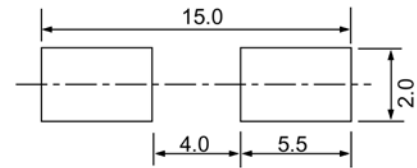


Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-200-20-5PVX

ECS - Frequency Abbreviation - Load Capacitance - Package

200 = 20.000 MHz
See P/N Guide

20 = 20 pF
S=Series

5PVX = CSM-7SSX