



- -55 to +125°C Temp RangeIndustry Std. Footprint
- ► Pb Free/RoHS Compliant

CSM-7X-DU SMD CRYSTAL

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

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

EOUIVALENT 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 | 100 | 20.000 ~ 30.000 | Fundamental | 30 |
| 6.000 ~ 6.999 | Fundamental | 80 | 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 | | | |

DIMENSIONS (mm)

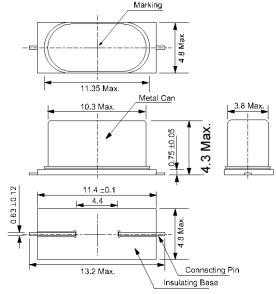


Figure 1) Top, Side, Bottom and End views

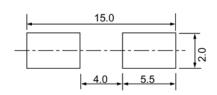


Figure 2) Suggested Land Pattern

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

U= -55 ~ +125°C TR= Tape

TR= Tape & Reel 1K/Reel

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ECS:

ECS-240-20-5PXDU-TR ECS-122.8-20-5PXDU-TR ECS-36-20-5PXDU-TR ECS-35-18-5PXDU-TR ECS-250-20-5PXDU-F-TR ECS-245.7-20-5PXDU-TR ECS-160-20-5PXDU-TR ECS-270-20-5PXDU-F-TR ECS-40-20-5PXDU-TR ECS-98.3-20-5PXDU-TR ECS-110.5-20-5PXDU-TR ECS-80-20-5PXDU-TR ECS-143-20-5PXDU-TR ECS-200-20-5PXDU-TR ECS-120-32-5PXDU-TR ECS-60-20-5PXDU-TR ECS-184-20-5PXDU-TR ECS-147.4-20-5PXDU-TR ECS-120-18-5PXDU-TR