

The CSM-7XDU is the widest temperature range version of our standard CSM-7X crystal.

CSM-7XDU SMD CRYSTAL

Request a Sample

CSM-7XDU SMD CRYSTAL



- -55 ~ +125°C Temp Range
- Low Profile
- Industry Standard Footprint
- Pb Free/RoHS Compliant

DIMENSIONS (mm)

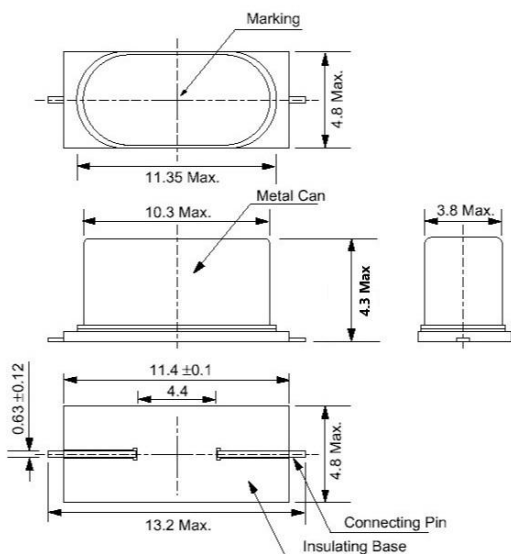


Figure 1) Top, Side, Bottom, and End

Crystal is symmetrical, pin 1 & 2 are interchangeable.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

| PARAMETERS | CONDITIONS | CSM-7XDU | | | UNITS |
|-----------------------|----------------|----------|-----|--------|-------|
| | | MIN | TYP | MAX | |
| Frequency | | 3.57 | | 70.000 | MHz |
| Frequency Tolerance | @ +25°C | | | ± 30 | ppm |
| Frequency Stability | -55 ~ +125°C | | | ± 100 | ppm |
| Shunt Capacitance | Co | | | 7 | pF |
| Load Capacitance | Specify in P/N | 10 | 20 | Series | pF |
| Drive Level | DL | | | 500 | μW |
| Operating Temperature | Topr | -55 | | +125 | °C |
| Storage Temperature | Tstg | -55 | | +125 | °C |
| Aging (First Year) | @ +25°C ±3°C | | | ±5 | ppm |

EQUIVALENT SERIES RESISTANCE/MODE OF OSCILLATION

| Frequency (MHz) | ESR Ω Max. | Mode of Osc. |
|-----------------|------------|--------------------------|
| 3.57 ~ 4.999 | 150 | Fundamental |
| 5.000 ~ 5.999 | 80 | Fundamental |
| 6.000 ~ 6.999 | 70 | Fundamental |
| 7.000 ~ 8.999 | 60 | Fundamental |
| 9.000 ~ 12.999 | 50 | Fundamental |
| 13.000 ~ 19.999 | 40 | Fundamental |
| 20.000 ~ 40.000 | 30 | Fundamental |
| 40.000 ~ 70.000 | 80 | 3 rd Overtone |

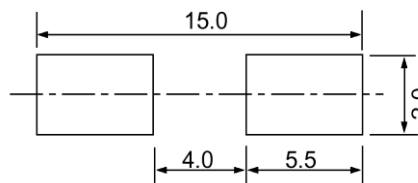
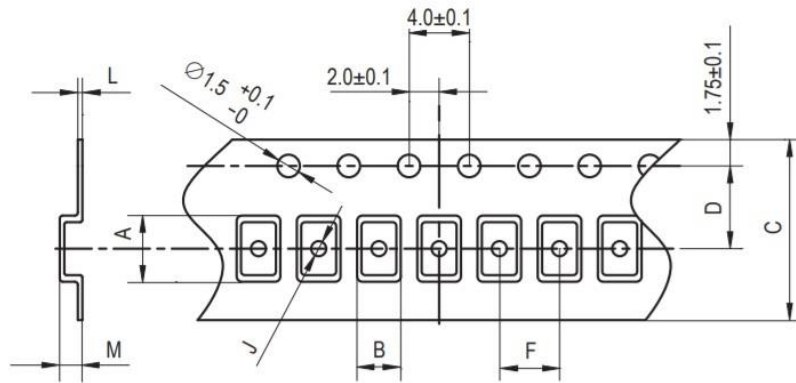


Figure 2) Suggested land

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

| ECS - | FREQUENCY ABBREVIATION | LOAD CAPACITANCE | PACKAGE | Stability | Temperature | PACKAGING |
|-------|-----------------------------------|----------------------------------------|--------------|--------------|------------------|-----------------------------------|
| ECS | 200 = 20.000 MHz See P/N Guide | 20 = 20 pF 10 = 10 pF S = Series | 5PX = 4.3 mm | D = ±100 ppm | U = -55 ~ +125°C | TR = Tape & Reel 1K/Reel |

POCKET TAPE DIMENSIONS (mm)



| A | B | C | D | F | J | L | M | Reel Dia. | Qty/Reel |
|------|-----|------|------|------|-----|-----|-----|-----------|----------|
| 15.4 | 5.3 | 24.0 | 11.5 | 12.0 | 1.7 | 0.4 | 4.4 | 300 | 1000pcs |

SOLDER PROFILE

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

2 Cycles Max.

MSL 1, Lead Finish Sn/Cu Matte

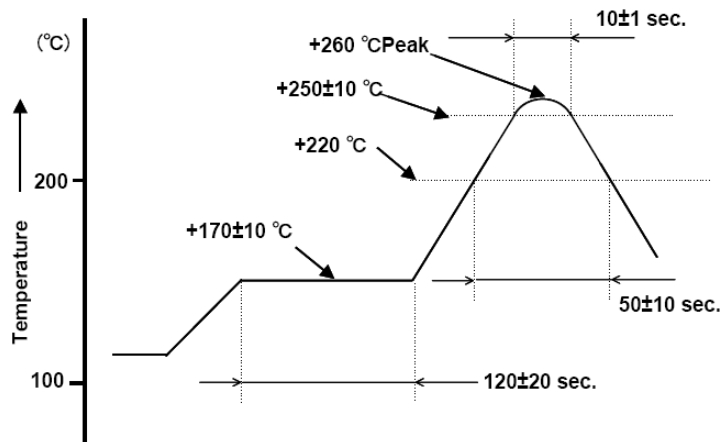


Figure 1) Suggested Reflow Profile

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-100-20-5PXDU-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](#) [ECS-120-18-5P](#) [ECS-196-20-5P-TR](#) [ECS-36-20-5P](#) [ECS-250-14-5P-DN-TR](#) [ECS-250-18-5P-TR](#) [ECS-250-20-5P-DN-TR](#) [ECS-65.5-S-5P-TR](#) [ECS-180-S-5P-DN-TR](#) [ECS250-18-5P-TR](#)