



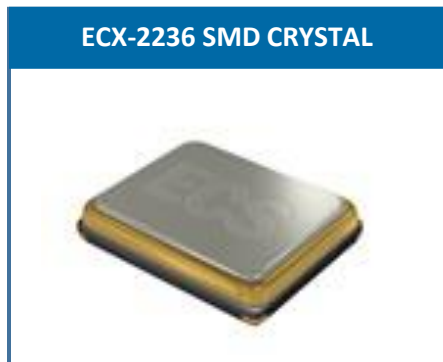
**THE DATASHEET OF
ECS-271.2-8-36-AGM-TR**



The miniature ECX-2236 is a compact SMD Crystal. The industry standard 2.5 x 2.0 x 0.55 mm is ideal for bluetooth, LoRa WAN, and wireless applications.

ECX-2236 SMD CRYSTAL

Request a Sample



- Low Profile
- 2.5 x 2.0 mm Footprint
- Extended Temp. Range
- IOT/Wearable applications

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

| PARAMETERS | CONDITIONS | ECX-2236 | | | UNITS |
|------------------------|----------------|----------|-----|--------|-------|
| | | MIN | TYP | MAX | |
| Frequency | | 12.000 | | 80.000 | MHz |
| Mode of Oscillation | Fundamental | | | | |
| Frequency Tolerance* | @ +25°C | | | ± 50 | ppm |
| Frequency Stability* | -20 ~ +70°C | | | ± 50 | ppm |
| Shunt Capacitance | Co | | | 5 | pF |
| Load Capacitance | Specify in P/N | | 8 | | pF |
| Drive Level | DL | | | 100 | μW |
| Operating Temperature* | Topr | -20 | | +70 | °C |
| Storage Temperature | Tstg | -55 | | +125 | °C |
| Aging (First Year) | @ +25°C ±3°C | | | ±5 | ppm |

DIMENSIONS (mm)

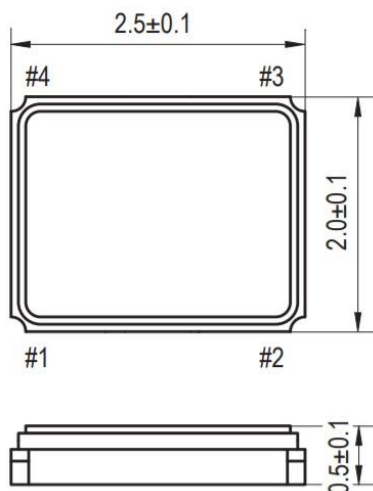
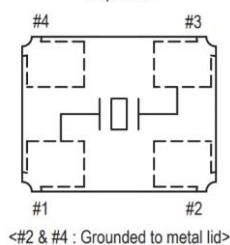
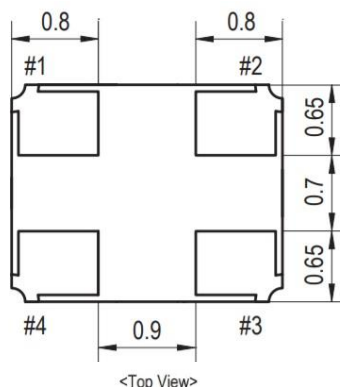


Figure 1) Top, Side, and Bottom

Crystal is symmetrical, pad 1 & 3 are interchangeable. Chamfer on the bottom pad has no electrical significance.



| Pad Connections | |
|-----------------|--------|
| 1 | In/Out |
| 2 | Gnd |
| 3 | Out/In |
| 4 | Gnd |

| Frequency (MHz) | ESR Ω Max. |
|-----------------|------------|
| 12.000 ~ 15.999 | 150 |
| 16.000 ~ 19.999 | 80 |
| 20.000 ~ 29.999 | 60 |
| 30.000 ~ 34.999 | 50 |
| 35.000 ~ 80.000 | 40 |

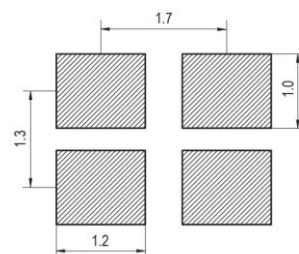


Figure 2) Suggested land

PART NUMBERING GUIDE: Example ECS-240-8-36-TR

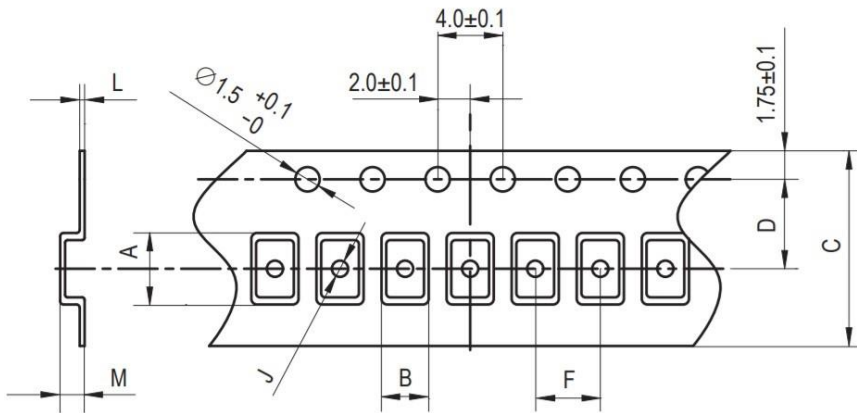
| ECS - FREQUENCY ABBREVIATION | LOAD CAPACITANCE | PACKAGE | AVAILABLE OPTIONS | | | PACKAGING | |
|------------------------------|-----------------------------------|----------------------|-------------------|---|---|--|------------------------------|
| | | | Tolerance | Stability | Temp Range | | |
| ECS | 240 = 24.000 MHz See P/N Guide | 8 = 8 pF 10=10 pF | -36 = ECX-2236 | 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 =1K TR3=3K Qty/Reel |

* Specify available options in P/N.

† Contact ECS for availability over extended temp range.

Rev.2021

POCKET TAPE DIMENSIONS (mm)



| | | | | | | | | |
|-----|-----|-----|-----|-----|------|------|------|-----------|
| A | B | C | D | F | J | L | M | Reel Dia. |
| 2.8 | 2.3 | 8.0 | 3.5 | 4.0 | 1.05 | 0.25 | 0.75 | 180 |

| SOLDER PROFILE |
|---|
| Peak solder Temp +260°C Max 10 sec Max. |
| 2 Cycles Max. |
| MSL 1, Lead Finish Au |

| DEVELOPED FREQUENCIES | |
|-----------------------|-----------------|
| Abbreviation | Frequency (MHZ) |
| 120 | 12.000 |
| 160 | 16.000 |
| 192 | 19.200 |
| 200 | 20.000 |
| 240 | 24.000 |
| 245.7 | 24.576 |
| 250 | 25.000 |
| 260 | 26.000 |
| 270 | 27.000 |
| 300 | 30.000 |
| 320 | 32.000 |
| 360 | 36.000 |
| 400 | 40.000 |
| 480 | 48.000 |

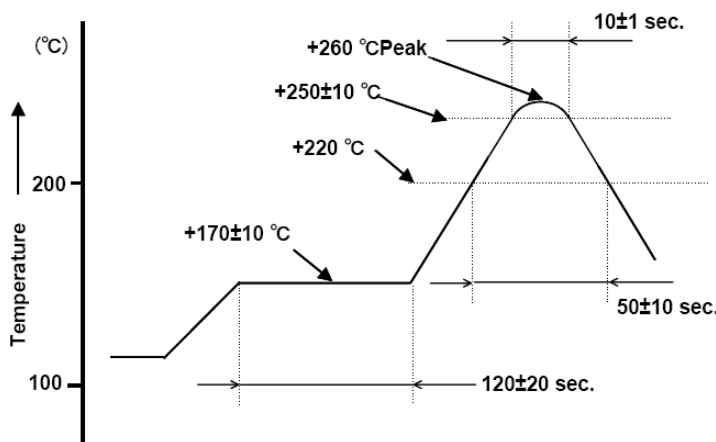




Figure 1) Suggested Reflow Profile

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View ECS-271.2-8-36-AGM-TR on WIN SOURCE](#)
-  [ECS Inc. Information](#)

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-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
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