

The ultra-miniature ECS-.327-CDX-1082 is a very compact SMD Tuning Fork Crystal. Low ESR part recommended by STMicroelectronics for the STM32 Microcontrollers.

[Request a Sample](#)



- Low Power RTC Applications such as STM32 [AN2867](#)
- 2.0 x 1.0 mm Footprint
- Extended Temp. Range
- Low ESR
- RoHS Compliant

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

| PARAMETERS | CONDITIONS | ECS-.327-CDX-1082 | | | UNITS |
|------------------------------|---------------|-------------------|--------|--------|---------------------|
| | | MIN | TYP | MAX | |
| Frequency | | | 32.768 | | KHz |
| Frequency Tolerance | @ +25°C | | | ± 20 | ppm |
| Temperature Coefficient | | -0.028 | -0.034 | -0.040 | ppm/°C ² |
| Shunt Capacitance | Co | | 1.5 | | pF |
| Load Capacitance | | | 4 | | pF |
| Drive Level | DL | | 0.1 | 0.5 | μW |
| Equivalent Series Resistance | R1 | | 60K | 80K | Ω |
| Crystal Q | | 9,000 | 20,000 | | |
| Turnover Temperature | | +20 | +25 | +30 | °C |
| Operating Temperature | Topr | -40 | | +85 | °C |
| Storage Temperature | Tstg | -55 | | +125 | °C |
| Aging (First Year) | @ +25°C ±3°C | | | ±3 | ppm |
| Insulation Resistance | @ 100Vdc ±15V | 500M | | | Ω |

DIMENSIONS (mm)

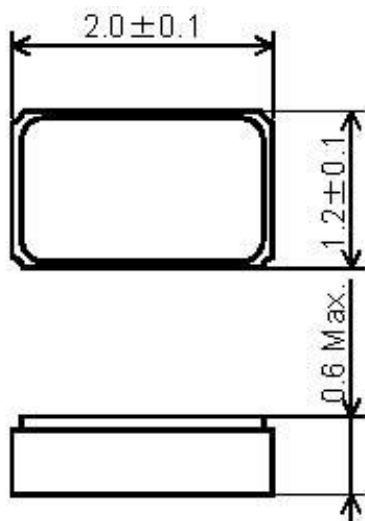
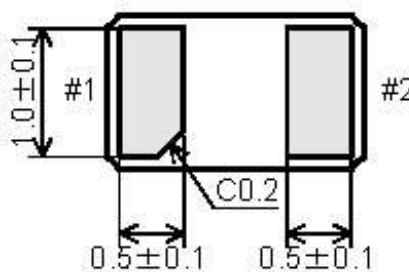


Figure 1) Top, Side, and Bottom views



| PAD CONNECTIONS | |
|-----------------|--------|
| 1 | In/Out |
| 2 | Out/In |

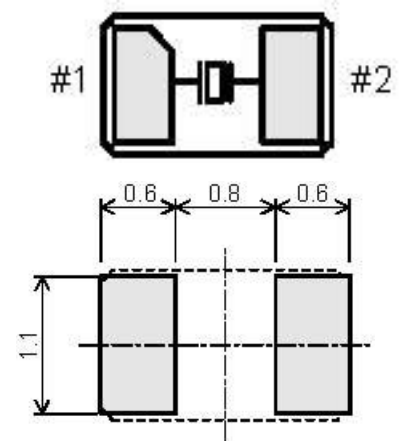
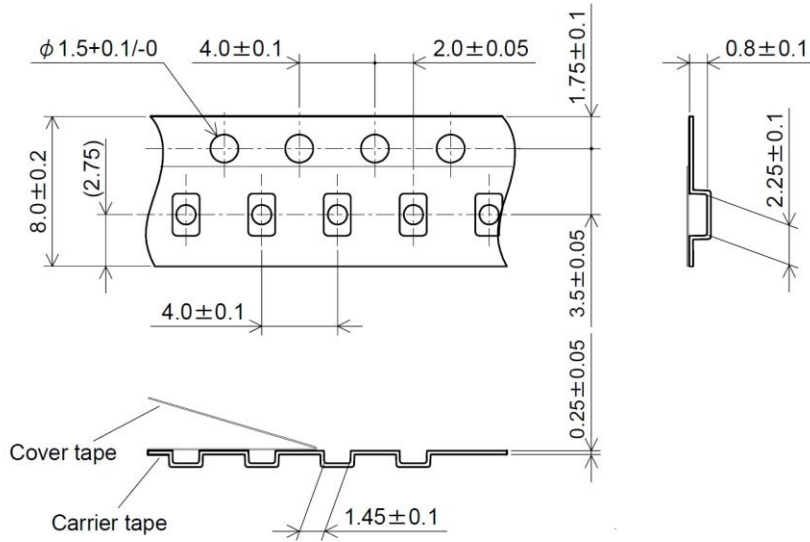


Figure 2) Suggested Land Pattern

PART NUMBER: Example ECS-.327-CDX-1082

POCKET TAPE DIMENSIONS (mm)



SOLDER PROFILE

Peak solder Temp $+260^\circ\text{C}$ Max 10 sec Max.

2 Cycles Max.

MSL 1, Lead Finish Au

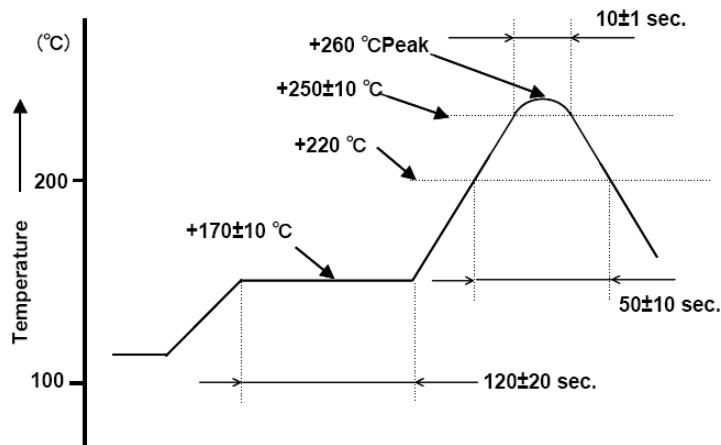


Figure 1) Suggested Reflow Profile