

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.

## ECS-.327-CDX-1082 SMD CRYSTAL

[Request a Sample](#)

### ECS-.327-CDX-1082



- Low Power RTC Applications such as STM32 [AN2867](#)
- 2.0 x 1.2 mm Footprint
- Extended Temp. Range
- Low ESR
- RoHS Compliant

### DIMENSIONS (mm)

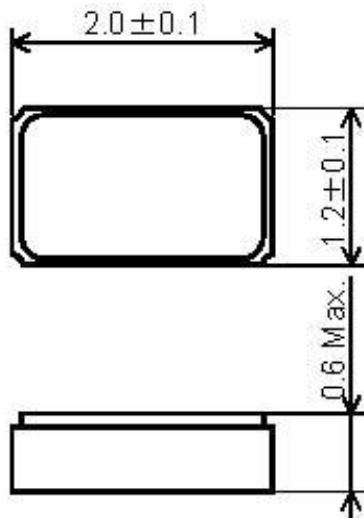
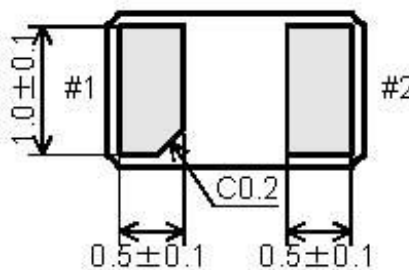


Figure 1) Top, Side, and Bottom views



#### PAD CONNECTIONS

|   |        |
|---|--------|
| 1 | In/Out |
| 2 | Out/In |

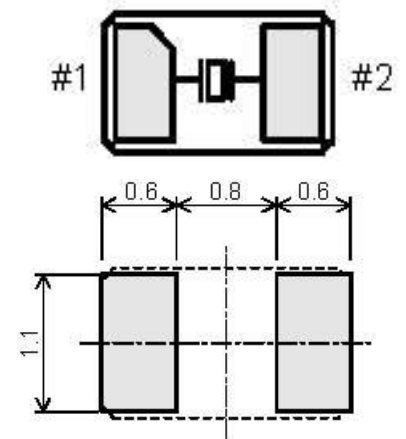


Figure 2) Suggested Land Pattern

### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

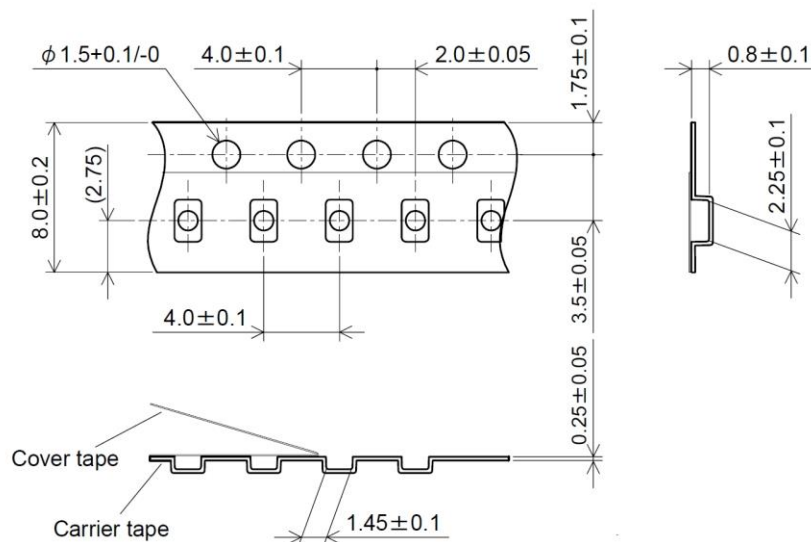
| PARAMETERS                   | CONDITIONS    | ECS-.327-CDX-1082 |        |        | UNITS               |
|------------------------------|---------------|-------------------|--------|--------|---------------------|
|                              |               | MIN               | TYP    | MAX    |                     |
| Frequency                    |               |                   | 32.768 |        | KHz                 |
| Frequency Tolerance          | @ +25°C       |                   |        | ± 20   | ppm                 |
| Temperature Coefficient      |               | -0.028            | -0.034 | -0.040 | ppm/°C <sup>2</sup> |
| 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                   |

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

P/N ECS-.327-CDX-1082 = 3K/Reel

P/N ECS-.327-CDX-1082-TR9 = 9K/Reel

## 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

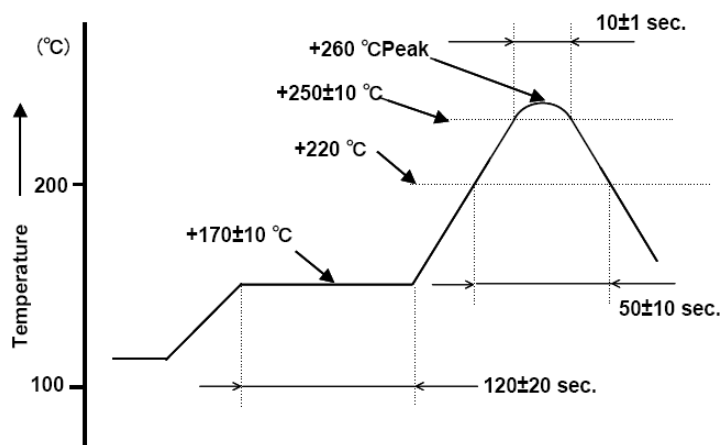


Figure 1) Suggested Reflow Profile

# Mouser Electronics

Authorized Distributor

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ECS:

[ECS-.327-CDX-1082](#) [ECS-.327-CDX-1082-TR9](#)