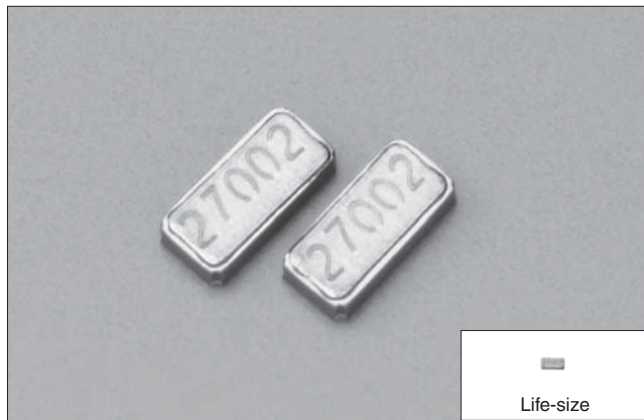


# TUNING FORK CRYSTAL UNIT (SMD • Ceramic Package)

RoHS compliant / Pb free

## CM315D

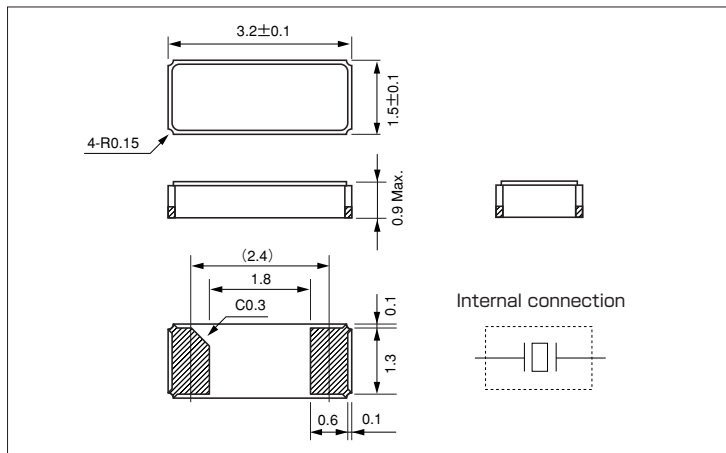
3000pcs/reel



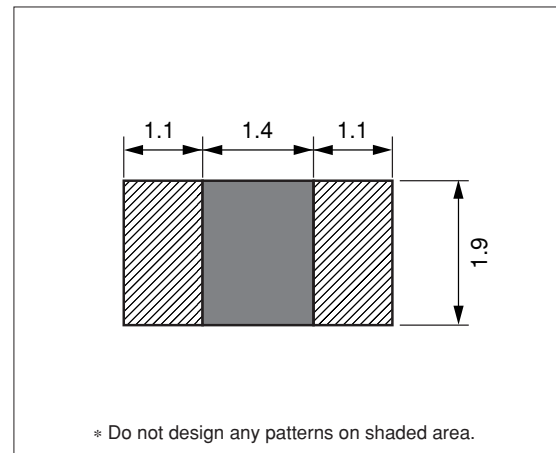
### FEATURES

- Tuning fork crystal with ceramic packaged type.
- High-density SMD type  
Ultra-light weight with ultra-miniature packaging.  
High-stability assured with tight vacuum sealing.
- Most appropriate for portable devices and mobile telecommunications devices.

### DIMENSION [mm]



### SOLDER PAD LAYOUT [mm]



### STANDARD SPECIFICATIONS

| Item                         | Model          | CM315D                                        | Conditions                       |
|------------------------------|----------------|-----------------------------------------------|----------------------------------|
| Nominal Frequency            | $f_0$          | 32.768kHz                                     |                                  |
| Frequency Tolerance          | $\Delta f/f_0$ | $\pm 20\text{ppm}$                            | at 25°C                          |
| Load capacitance             | $C_L$          | 9.0pF, 12.5pF                                 | Need to specify your requirement |
| Operating Temperature Range  | $T_{OPR}$      | -40°C ~ +85°C                                 |                                  |
| Storage Temperature Range    | $T_{STR}$      | -55°C ~ +125°C                                |                                  |
| Turnover Temperature         | $T_M$          | 25°C $\pm 5^\circ\text{C}$                    |                                  |
| Temperature Coefficient      | $\beta$        | $-0.034 \pm 0.006\text{ppm}/^\circ\text{C}^2$ |                                  |
| Motional (series) resistance | $R_1$          | 70K $\Omega$ Max.                             | at 25°C                          |
| Level of drive               | $D_L$          | 1 $\mu\text{W}$ Max.                          |                                  |
| Aging (first year)           | $\Delta f/f_0$ | $\pm 3\text{ppm}$ Max.                        | 25°C $\pm 3^\circ\text{C}$       |
| Shunt capacitance            | $C_0$          | 0.95pF Typ.                                   |                                  |