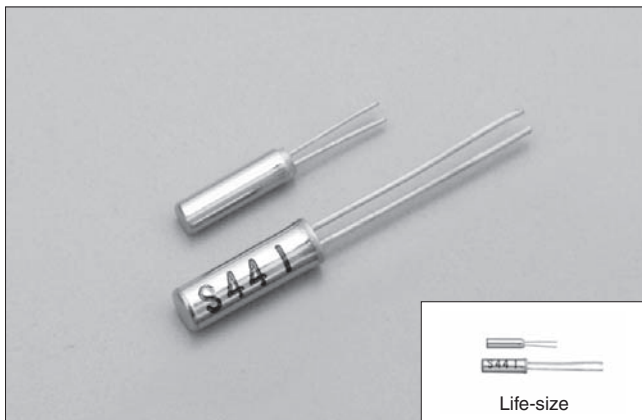


# TUNING FORK CRYSTAL UNITS (Cylinder Type)

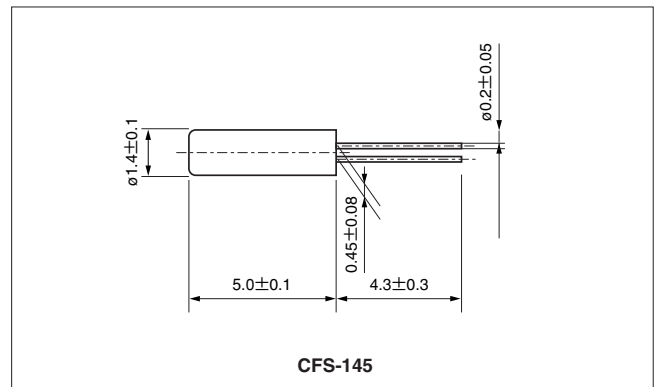
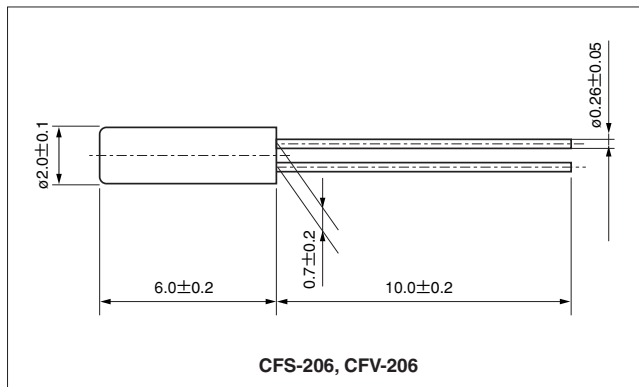
## CFS-206·CFS-145·CFV-206



### FEATURES

- Best suited for portable devices with low current consumption.
- For a clock source in digital equipment.

### DIMENSION [mm]



### STANDARD SPECIFICATIONS

| Item                         | Model          | CFS-206                                       | CFS-145           | CFV-206                | Conditions  |
|------------------------------|----------------|---|-------------------|------------------------|---|
| Nominal Frequency            | $f_0$          | 32.768kHz                                     |                   | 30kHz~100kHz           | Need to contact us for the available frequency in CFV-206 |
| Frequency Tolerance          | $\Delta f/f_0$ | $\pm 20\text{ppm}$                            |                   | $\pm 30\text{ppm}$     | at 25°C   |
| Load capacitance             | $C_L$          | 12.5pF  | 8.0pF             | 12.5pF                 | Need to specify your requirement                          |
| Operating Temperature Range  | $T_{OPR}$      | -20°C ~ +70°C                                 |                   |                        |   |
| Storage Temperature Range    | $T_{STR}$      | -40°C ~ +85°C                                 |                   |                        |   |
| Turnover Temperature         | $T_M$          | 25°C $\pm 5^\circ\text{C}$                    |                   |                        | See figure 2 in P4  |
| Temperature Coefficient      | $\beta$        | -0.034 $\pm 0.006\text{ppm}/^\circ\text{C}^2$ |                   |                        |   |
| Motional (series) resistance | $R_1$          | 35K $\Omega$ Max.                             | 40K $\Omega$ Max. | 50K $\Omega$ 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.                        |                   | $\pm 5\text{ppm}$ Max. | 25°C $\pm 3^\circ\text{C}$                                |
| Quality Factor               | $Q$            | 70000 Typ.                                    | 85000 Typ.        | 70000~100000 Typ.      | Depend on frequency                                       |
| Shunt capacitance            | $C_0$          | 1.35pF Typ.                                   | 1.00pF Typ.       | 0.8~1.7pF Typ.         | Depend on frequency                                       |