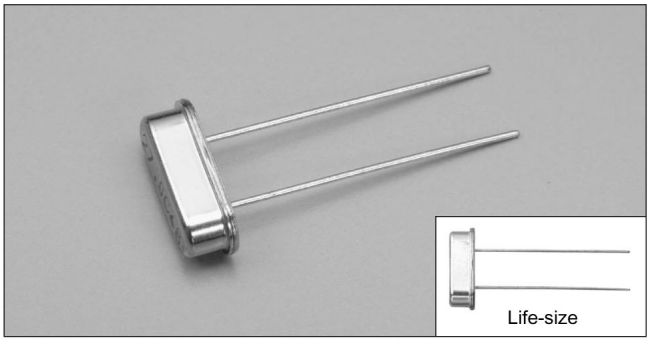
# AT-CUT CRYSTAL UNIT (Metal-can Type)

CITIZEN

RoHS Compliant Optional

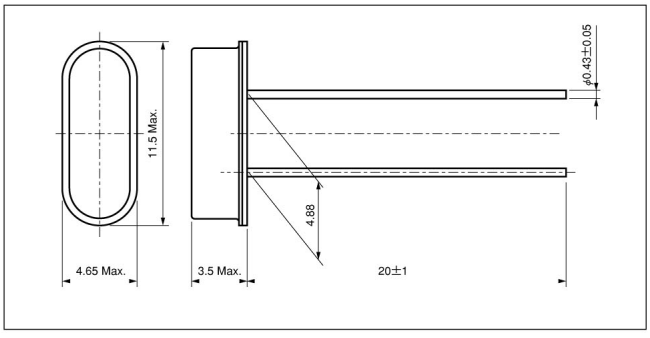
# HC49US



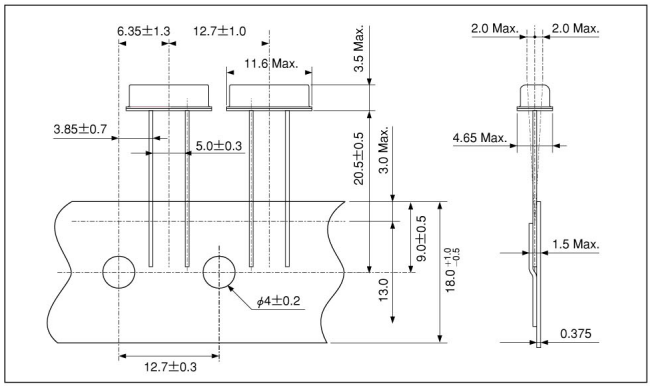

## ■FEATURES

- High performance miniature crystal units with Citizen's ultra-precise processing technology.
- Available in Tape and reel form.
- Suitable for various applications such as communication , AV , automotive and measurement devices.

## ■DIMENSION [mm]




### Taping dimension : 2000pcs/Ammo pack [mm]




## ■STANDARD SPECIFICATIONS

| Item | Model | HC49US | Conditions |
|---|---|---|---|
| Nominal Frequency | $f_0$ | 3.5MHz～30.0MHz（Fundamental） | Need to contact us for the available frequency |
| | | 30.001MHz～50.0MHz（3rd Overtone） | |
| Frequency Tolerance | $\triangle f/f_0$ | ±30ppm | at 25˚C |
| Frequency Tolerance over Operating Temperature Range | $\triangle f/f_0$ | ±50ppm | −10˚C～+60˚C |
| Operating Temperature Range | $T_{OPR}$ | −20˚C～+70˚C | |
| Storage Temperature Range | $T_{STR}$ | −40˚C～+85˚C | |
| Motional (series) resistance | $R_1$ | Refer to the following table | at 25˚C |
| Load capacitance | $C_L$ | 18.0pF | Need to specify your requirement |
| Shunt capacitance | $C_0$ | 7.0pF Max. | |
| Level of drive | $D_L$ | 100 μW Max. | |
| Insulation Resistance | $I_R$ | 500MΩMin. | DC100V±15V |
| Aging (first year) | $\triangle f/f_0$ | ±5ppm Max. | 25˚C±3˚C |

## ■MOTIONAL (SERIES) RESISTANCE ($R_1$)

| Frequency Range | 3.5MHz≦$f_0$<4.0MHz | 4.0MHz≦$f_0$<6.0MHz | 6.0MHz≦$f_0$<10MHz | 10MHz≦$f_0$<14MHz | 14MHz≦$f_0$<30MHz | 30MHz≦$f_0$<36MHz | 36MHz≦$f_0$≦50MHz |
|---|---|---|---|---|---|---|---|
| Mode | Fundamental | Fundamental | Fundamental | Fundamental | Fundamental | 3rd Overtone | 3rd Overtone |
| $R_1$ | 200Ω Max. | 150Ω Max. | 100Ω Max. | 80Ω Max. | 50Ω Max. | 140Ω Max. | 100Ω Max. |