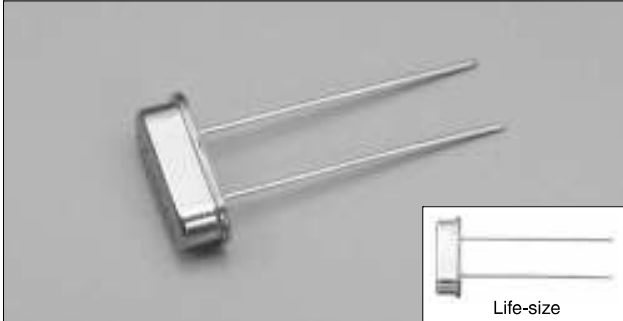


# AT-CUT CRYSTAL UNIT (Metal-can Type)

RoHS compliant

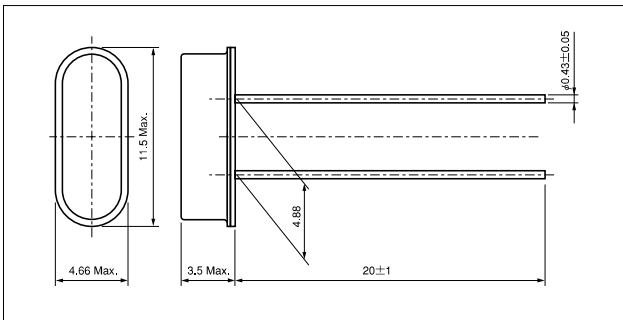
## HC-49/U-S



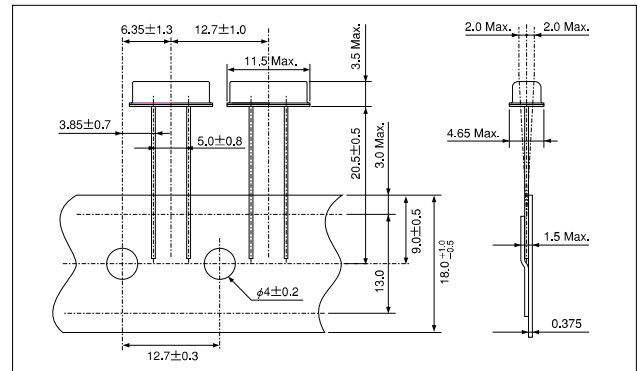
### FEATURES

- Available in Tape and reel form.
- Suitable for various applications such as communication devices, AV devices and measuring instruments.

### DIMENSION [mm]



Taping dimension : 2000pcs/Ammo pack [mm]



### STANDARD SPECIFICATIONS

| Item   | Model            | HC-49/U-S                                       | Conditions                                     |
|--|------------------|---|--|
| Nominal Frequency                                    | f <sub>0</sub>   | 3.5MHz~30.0MHz (Fundamental)                    | Need to contact us for the available frequency |
|  |                  | 30.0MHz~50.0MHz (3rd Overtone)                  |  |
| Frequency Tolerance                                  | $\Delta f/f_0$   | ±30ppm  | at 25°C  |
| Frequency Tolerance over Operating Temperature Range | $\Delta f/f_0$   | below 6.0MHz: ±50ppm                            | -10°C ~ +60°C                                  |
|  |                  | above 6.0MHz: ±30ppm                            |  |
| Operating Temperature Range                          | T <sub>OPR</sub> | -20°C ~ +70°C                                   |  |
| Storage Temperature Range                            | T <sub>STR</sub> | -40°C ~ +85°C                                   |  |
| Motional (series) resistance                         | R <sub>1</sub>   | Refer to the following table                    | at 25°C  |
| Load capacitance                                     | C <sub>L</sub>   | Fundamental: 10.0pF ~ ∞ 3rd Overtone: 5.0pF ~ ∞ | Need to specify your requirement               |
| Shunt capacitance                                    | C <sub>0</sub>   | 7.0pF Max.                                      |  |
| Level of drive                                       | DL               | 100 μW  |  |
| Insulation Resistance                                | I <sub>R</sub>   | 500MΩ Min.                                      | DC100V ± 15V                                   |
| Aging (first year)                                   | $\Delta f/f_0$   | ±5ppm Max.                                      | 25°C ± 3°C                                     |

### MOTIONAL (SERIES) RESISTANCE (R<sub>1</sub>)

| Frequency Range | 3.5MHz ≤ f <sub>0</sub> < 4.0MHz | 4.0MHz ≤ f <sub>0</sub> < 6.0MHz | 6.0MHz ≤ f <sub>0</sub> < 10MHz | 10MHz ≤ f <sub>0</sub> < 14MHz | 14MHz ≤ f <sub>0</sub> < 30MHz | 30MHz ≤ f <sub>0</sub> < 36MHz | 36MHz ≤ f <sub>0</sub> ≤ 50MHz |
|-----------------|----------------------------------|----------------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Mode            | Fundamental                      | Fundamental                      | Fundamental                     | Fundamental                    | Fundamental                    | 3rd Overtone                   | 3rd Overtone                   |
| R <sub>1</sub>  | 200 Ω Max.                       | 150 Ω Max.                       | 100 Ω Max.                      | 80 Ω Max.                      | 50 Ω Max.                      | 140 Ω Max.                     | 100 Ω Max.                     |