

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

RoHS compliant

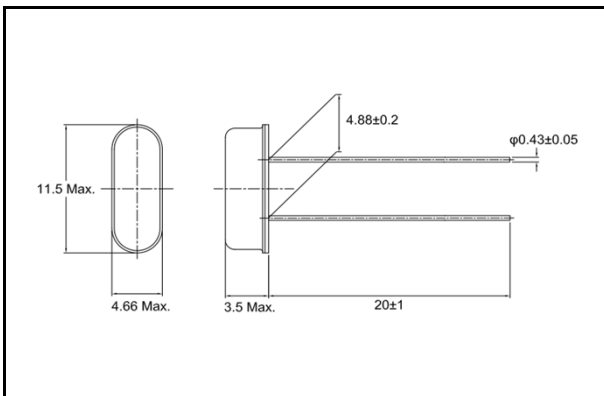
# HC-49/U-S



### ■ FEATURES

- Frequency range : 3.5 ~ 50.0MHz
- External dimensions (mm)  
L : 11.5 x W : 4.66 x H : 3.5
- Applications  
Consumer products

### ■ DIMENSION [mm]



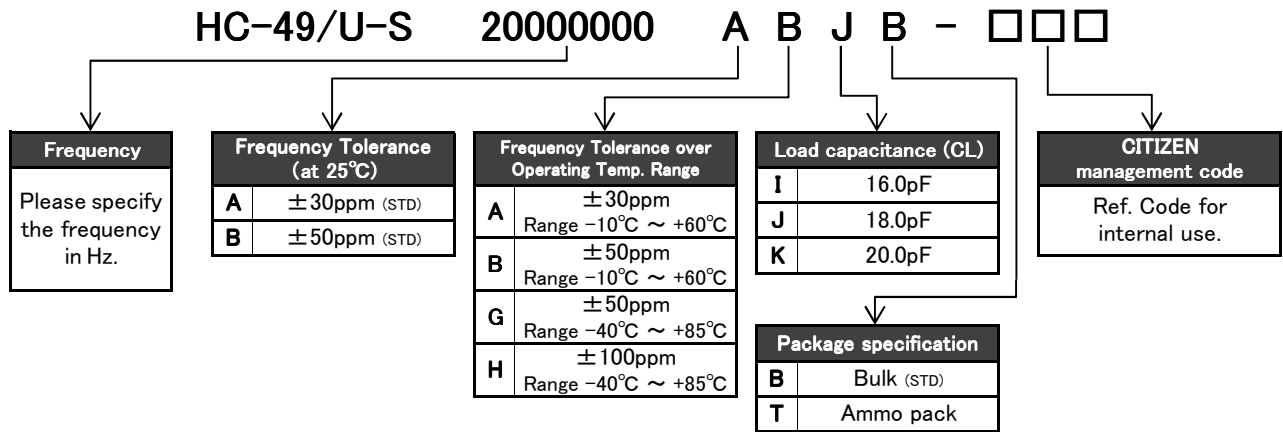
### ■ STANDARD SPECIFICATIONS

Item	Model	HC-49/U-S	Conditions
Nominal Frequency	$f_0$	3.5MHz ~ 30.0MHz (Fundamental) 30.0MHz ~ 50.0MHz (3rd Overtone)	Please contact us for frequencies available
Frequency Tolerance	$\Delta f/f_0$	$\pm 30$ ppm	at 25°C
Frequency Tolerance over Operating Temperature Range	$\Delta f/f_0$	below 6.0MHz: $\pm 50$ ppm above 6.0MHz: $\pm 30$ ppm	-10°C ~ +60°C
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 ~ ∞	Please specify your requirement
Shunt capacitance	C <sub>0</sub>	7.0pF Max.	
Level of drive	D <sub>L</sub>	100 μW	
Insulation Resistance	I <sub>R</sub>	500MΩ Min.	DC100V ± 15V
Aging (first year)	$\Delta f/f_0$	$\pm 5$ ppm Max.	25°C ± 3°C

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

Freq. Range (MHz)	3.5 ≤ f <sub>0</sub> < 4.0	4.0 ≤ f <sub>0</sub> < 6.0	6.0 ≤ f <sub>0</sub> < 10.0	10.0 ≤ f <sub>0</sub> < 14.0	14.0 ≤ f <sub>0</sub> < 30.0	30.0 ≤ f <sub>0</sub> < 36.0	36.0 ≤ f <sub>0</sub> ≤ 50.0
Mode	Fundamental	Fundamental	Fundamental	Fundamental	Fundamental	3rd Overtone	3rd Overtone
R <sub>1</sub>	200Ω Max.	150Ω Max.	100Ω Max.	80Ω Max.	50Ω Max.	140Ω Max.	100Ω Max.

## ■ PART NUMBERING SYSTEM



\*Please contact us for specifications available.

## ■ Part Marking [standard]



f : The first 4 digits of Frequency including the decimal point

C : Manufacture's ID Code

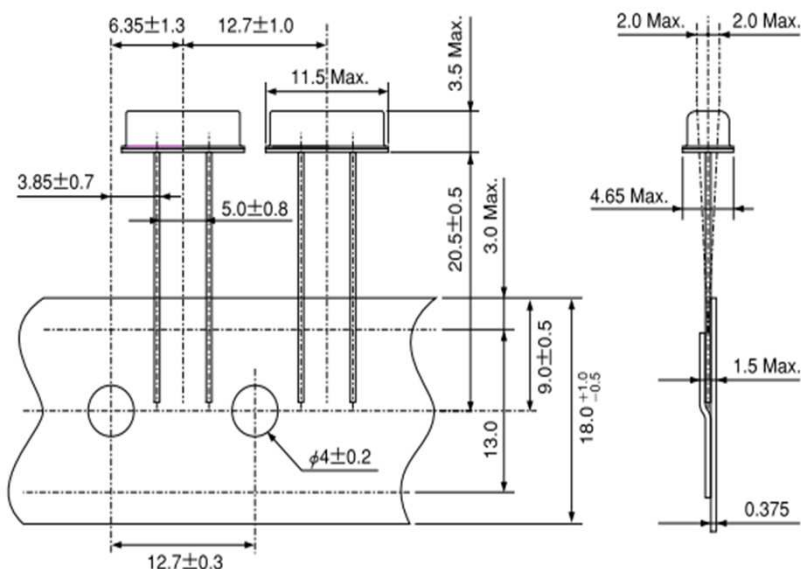
y : The last digit of production year

m : Production month (See Table.1)

Table.1

Month	Jan	Feb	...	Sep	Oct	Nov	Dec
Code	1	2	...	9	X	Y	Z

## ■ Taping dimension : 2,000pcs/Ammo pack [mm]



Product specifications are subject to change without notice.

Rev.2