CITIZEN

AT-CUT CRYSTAL UNIT (Metal-can Type)

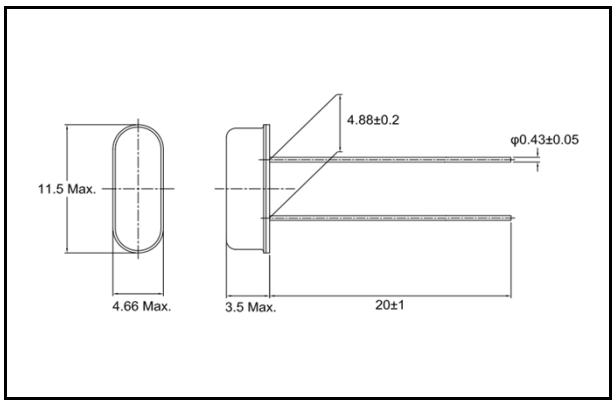
RoHS compliant

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	$\Delta f/f_0$	±30ppm	at 25°C
Frequency Tolerance over Operating Temperature Range	$\Delta f/f_0$	below 6.0MHz:±50ppm above 6.0MHz:±30ppm	−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	Fundamental:10.0pF ～ ∞ 3rd Overtone:5.0pF ～ ∞	Please specify your requirement
Shunt capacitance	C_0	7.0pF Max.	
Level of drive	D_L	100 μW	
Insulation Resistance	I_R	500MΩ Min.	DC100V±15V
Aging (first year)	$\Delta f/f_0$	±5ppm Max.	25°C±3°C

■ MOTIONAL (SERIES) RESISTANCE (R_1)

Freq. Range (MHz)	3.5≦f0<4.0	4.0≦f0<6.0	6.0≦f0<10.0	10.0≦f0<14.0	14.0≦f0<30.0	30.0≦f0<36.0	36.0≦f0≦50.0
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.

CITIZEN

■ PART NUMBERING SYSTEM

HC-49/U-S　20000000　A　B　J　B　-　□□□

Frequency
Please specify the frequency in Hz.

Frequency Tolerance (at 25℃)	
A	±30ppm (STD)
B	±50ppm (STD)

Frequency Tolerance over Operating Temp. Range	
A	±30ppm Range −10℃ ～ +60℃
B	±50ppm Range −10℃ ～ +60℃
G	±50ppm Range −40℃ ～ +85℃
H	±100ppm Range −40℃ ～ +85℃

Load capacitance (CL)	
I	16.0pF
J	18.0pF
K	20.0pF

Package specification	
B	Bulk (STD)
T	Ammo pack

CITIZEN management code
Ref. Code for internal use.

*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

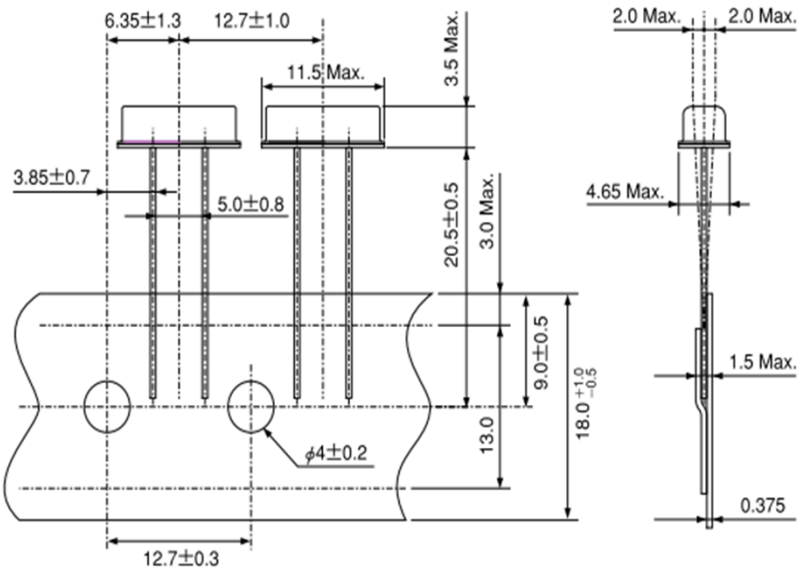
y : The last digit of production year

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]



Rev.1