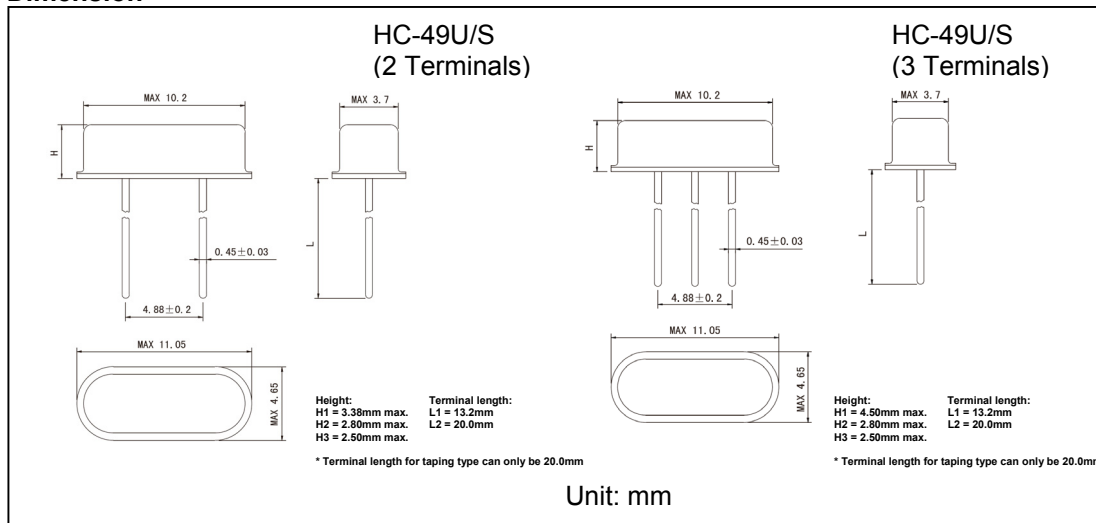




### Quartz Crystal Unit (HC-49U/S)

#### ● Dimension



RoHS Compliant  
Directive 2002/95/EC

REACH Compliant  
(15 SVHCs)  
Regulation (EC) No.  
1907/2006

TS16949:2002  
Certified

#### ● Electrical Specifications <sup>1</sup>

Holder type		HC-49U/S (two terminals, height: H1, H2, H3) HC-49U/S (three terminals, height: H1, H2, H3)
Frequency range	Fo	3.200 to 100.000MHz <sup>2</sup>
Frequency tolerance (at 25°C)	ΔF	±10ppm to ±100ppm
Frequency drift	Tc	±10ppm to ±100ppm
Operating temperature range	T0	-10°C ~ +60°C to -40°C ~ +85°C
Storage temperature range	TS	-40°C ~ +85°C to -55°C ~ +125°C
Aging (at 25°C)		±5ppm / year max.
Shunt capacitance	C0	7pF max.
Drive level	DL	100μW (typical)
Insulation resistance	Ri	500MΩ min. at DC100V
Load capacitance	CL	Suggested by customer

<sup>1</sup> Above information is for reference only. For other frequencies or specifications, please consult with our sales representatives for details.

<sup>2</sup> For HC-49U/S (two terminals / three terminals, height: H2 = 2.8mm max.), the lowest frequency that can be manufactured is 10.000MHz.  
For HC-49U/S (two terminals / three terminals, height: H3 = 2.5mm max.), the lowest frequency that can be manufactured is 6.000MHz.

#### ● Equivalent Series Resistance and Mode of Operation

Frequency range	Equivalent series resistance	Mode of operation
3.200MHz to 3.578MHz	250Ω max.	Fundamental
3.579MHz to 3.999MHz	150Ω max.	Fundamental
4.000MHz to 4.999MHz	120Ω max.	Fundamental
5.000MHz to 5.999MHz	100Ω max.	Fundamental
6.000MHz to 6.999MHz	80Ω max.	Fundamental
7.000MHz to 9.999MHz	60Ω max.	Fundamental
10.000MHz to 13.999MHz	50Ω max.	Fundamental
14.000MHz to 19.999MHz	40Ω max.	Fundamental
≥ 20.000MHz	30Ω max. (AT cut) 40Ω max. (BT cut)	Fundamental
24.000MHz to 34.999MHz	100Ω max.	3 <sup>rd</sup> overtone
≥ 35.000MHz	80Ω max.	3 <sup>rd</sup> overtone

- The above information is for reference only. For other frequencies or specifications, please consult with our sales representatives for details.