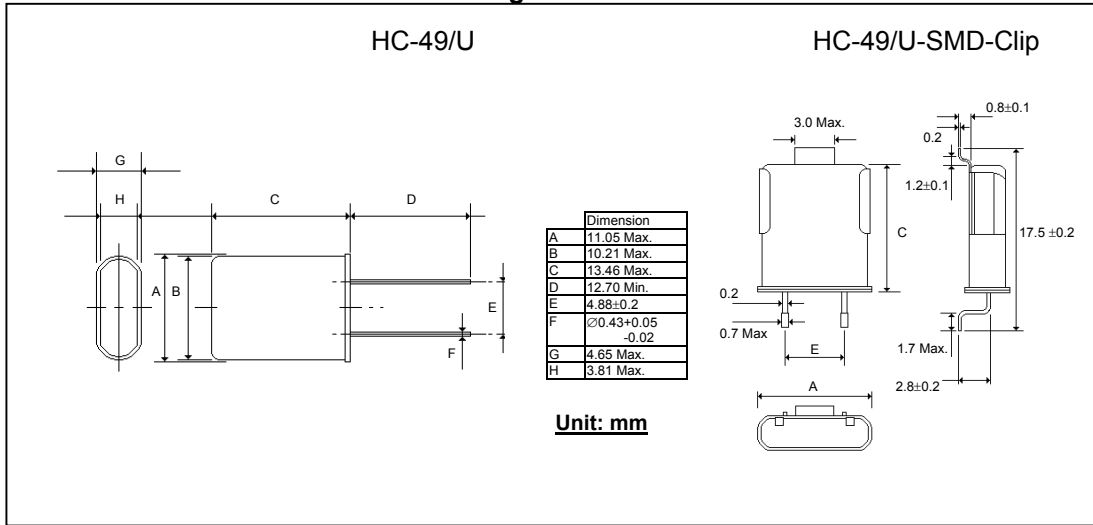




Quartz Crystal Unit (HC-49/U and HC-49/U-SMD-Clip)

● Dimension and Recommended Soldering Pattern



RoHS Compliant
Directive 2002/95/EC

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

TS16949:2002
Certified

● Electrical Specifications of Common Frequencies ¹

Frequency (MHz)	CL (pF)	Rs Max. (Ω)	Vibration Mode	Frequency (MHz)	CL (pF)	Rs Max. (Ω)	Vibration Mode	Frequency (MHz)	CL (pF)	Rs Max. (Ω)	Vibration Mode
1.8432	32	650	Fundamental	6.400	32	40	Fundamental	16.000	32	20	Fundamental
2.000	32	650		6.5536	32	40		16.9344	12	20	
2.097152	32	550		7.15909	20	40		17.472	32	20	
2.4576	32	350		7.200	20	40		17.734475	32	20	
3.000	32	150		7.3728	32	40		18.000	32	20	
3.2768	32	150		7.680	32	40		18.432	32	20	
3.575611	18	100		8.000	32	35		19.6608	32	20	
3.579545	16	90		8.192	20	35		20.000	32	20	
3.582056	18	100		8.4672	20	35		22.1184	32	25	
3.582692	16	100		8.867238	20	35		24.000	32	25	
3.600	30	100		9.216	32	30		24.576	32	40	
3.6864	20	100		9.600	32	30		26.601712	18	50	
3.8392	15	100		9.8304	32	30		27.0000	20	50	
3.840	32	100		10.000	32	30		27.095	20	50	
3.848	15	100		10.240	18	30		27.125	20	50	
3.93216	20	100		10.245	32	30		27.145	20	50	
3.980	12	100		10.700	32	30		27.195	20	50	
3.9936	32	100		10.752	32	30		28.000	32	50	
4.000	20	100		11.000	32	30		28.322	32	50	
4.032	20	100		11.0592	32	30		29.4912	32	50	
4.096	16	100	11.150	30	30	32.000	32	50			
4.194304	12	100	11.5035	20	30	33.8688	20	50			
4.433619	16	80	12.000	32	30	34.922	32	50			
4.433619	Series	80	12.288	32	30	35.2512	18	50			
4.500	20	80	12.800	16	25	36.000	32	50			
4.800	32	80	13.875	32	30	36.864	16	50			
4.9152	32	70	14.000	32	25	40.000	32	50			
5.000	20	60	14.1875	Series	25	44.560	16	50			
5.0688	32	50	14.31818	32	25	45.470	16	50			
5.6448	32	50	14.7456	32	25	48.000	32	50			
6.000	32	40	15.000	32	25	49.860	32	50			
6.144	32	40	15.360	32	25						

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

Parameter	HC-49/U, HC49/U-SMD-Clip
Frequency Tolerance at 25°C	±10ppm to ±100ppm
Frequency Stability from -20°C to +70°C	±10ppm to ±100ppm
Load Capacitance (CL)	10pF to 50pF / Series
Shunt Capacitance (Co)	7pF Max.
Drive Level	0.1mW to 1.0mW
Insulation Resistance	≥500MΩ (DC100V±15V)
Leak Rate	≤1x10 ⁻⁸ mbar L / sec
Aging	±5ppm / Year