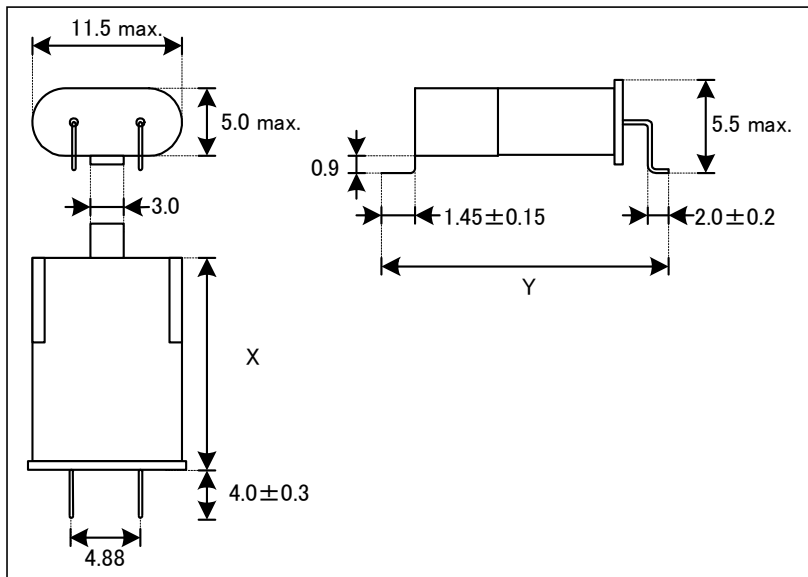


**CRYSTAL UNIT (SMD TYPE)** HC-49/U-SMD, HC-49/U-T-SMD, HC-49/U-TT-SMD  
AT-Cut SMD Type Crystal Unit (Resistance Weld)

**SPECIFICATIONS**

Type No.	HC-49/U-SMD	HC-49/U-T-SMD	HC-49/U-TT-SMD	
Frequency Range	1.8~200.00	5~200.00	6~200.00	MHz
Vibration Range	Fund.(1.8~40MHz)	Fund.(5~40MHz)	Fund.(6~40MHz)	
	3rd (20~90MHz)	3rd (20~90MHz)	3rd (25~90MHz)	
	5th(70~150MHz)	5th(70~150MHz)	5th(70~150MHz)	
	7th(140~200MHz)	7th(140~200MHz)	7th(140~200MHz)	
Frequency Tolerance @25°C	±5,±10,±15,±20			ppm
Frequency Stability (Operating Temperature)	±3,±10,±50 (-10 ~ 60°C)			
	±5,±10,±50(-20 ~ 70°C)			ppm
	±15,±20,±50(-40 ~ 85°C)			
Equivalent Series Resistance	30(Fund.@10MHz)	30(Fund.@40MHz)	40(Fund.@40MHz)	Ω
	50(3rd @90MHz)	50(3rd @90MHz)	50(3rd @90MHz)	
	80(5th @130MHz)	80(5th @130MHz)	80(5th @130MHz)	
	120(7th@200MHz)	120(7th@200MHz)	120(7th@200MHz)	

**CASE DIMENSIONS (Unit:mm)**



Type	X	Y
HC-49/U-SMD	13.4 max.	19.0 max.
HC-49/U-T-SMD	11.4 max.	17.0 max.
HC-49/U-TT-SMD	9.6 max.	15.2 max.