



Features

“AT” Strip Blank Technology
Cost Effective
High Stability with Temperature
Wide Frequency Range
Excellent Reliability
Low Profile
Excellent Aging Characteristics



Specifications

Type		HC-49US/SMD, HC-49US1/SMD
频率范围 Frequency Range(MHz)	AT Fundamental	3.579~35.000MHz
	BT Fundamental	20.000~60.000MHz
	3 rd Overtone	30.000~90.000MHz
振动模式 Vibration Mode		AT/BT cut, Fundamental, 3 rd Overtone
调整频差 (ppm) Frequency Tolerance (at 25°C)		±3 ~ ±50ppm
温度频差 (ppm) Frequency Stability Over Temperature Range		See Table 1
储存温度 (°C) Storage Temperature Range		-40°C ~ +85°C
等效电阻 (Ω) Equivalent Series Resistance		See Table 2
静态电容 (pF) Shunt Capacitance		7.0 pF Max
负载电容 (pF) Load Capacitance		5-50pF or Series Resonance
绝缘电阻 (MΩ) Insulation Resistance		≥500MΩ //DC100V ±10V
激励功率 (μW) Drive Level		0.01 μW ~ 1000 μW
老化率 (ppm/y) Aging		±2ppm/year, ±3ppm/year, ±5ppm/year

All specifications subject change without notice.

Frequency Stability over Temperature Range (AT cut) (Table 1)

Temperature Range		±3ppm	±5ppm	±7ppm	±10ppm	±15ppm	±20ppm	±30ppm	±50ppm
		03	05	07	10	15	20	30	50
0~+50°C	A	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
-5~+55°C	B	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
-10~+60°C	C	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
-20~+70°C	D	/	Δ	Δ	Δ	Δ	Δ	Δ	Δ
-30~+85°C	E	/	/	Δ	Δ	Δ	Δ	Δ	Δ
-40~+85°C	F	/	/	/	/	Δ	Δ	Δ	Δ
-40~+105°C	G	/	/	/	/	Δ	Δ	Δ	Δ

HC-49US/SMD (2L, 3L), HC-49US₁/SMD (2L, 3L)

■ Equivalent Series Resistance (ESR) (Table 2)

Freq. Range (MHz)	Mode of Oscillation	ESR (Ω Max)
3.570~3.999	AT.Fund	150
4.000~4.999	AT.Fund	120
5.000~5.999	AT.Fund	100
6.000~7.999	AT.Fund	90
8.000~9.999	AT.Fund	80
10.000~14.999	AT.Fund	60
15.000~35.000	AT.Fund	40
20.000~40.000	BT.Fund	40
30.000~90.000	3 rd Overtone	70

■ Options Available

Options Available	Item
✓	Tape & reel packing/ ammo packing
✓	3 rd in line lead base; 3 rd lead centred on the base of 49US/SMD
✓	Laser marking
✓	Special C ₁ or C ₀ requirement
✓	Special ESR

■ Dimension (Unit: mm)

