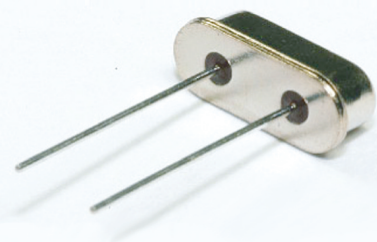


## CRYSTAL UNIT



## ATS TYPE ATS-49/U

- ATS Holder type package
- AT or BT cut available
- Resistance weld seal
- Tape and reel, insulator tab, 3rd lead, and custom lead length options available
- Tight tolerance / stability
- Pb-free and RoHS compliance

### ELECTRICAL SPECIFICATIONS

Frequency Range	3.2768 to 85.000MHz
Operating Temperature Range	-10 to +60 °C (STD), -20 to +70 °C, or specify
Storage Temperature Range	-40 to +85 °C
Frequency Tolerance (at 25 °C)	± 15, ± 30, ± 50ppm(STD), or specify
Frequency stability Over Operating Temperature Range	See Table1 in page 4 ± 30, ± 50(STD), ± 100ppm
Load Capacitance(CL)	18pF(STD), Custom CL ≥ 10pF or Series Resonant
Drive Level	100µW(1000µW max.)
Shunt Capacitance(Co)	7.0pF max.
Aging (at 25 °C)	± 5.0ppm/year max.
Insulation Resistance	500MΩ min. at 100V <sub>bc</sub>

### EQUIVALENT SERIES RESISTANCE(ESR)

Frequency Range(MHz)	ESR(Ω MAX.)	Mode of Oscillation
3.2768 ~ 3.999	150	Fundamental / AT
4.000 ~ 4.999	120	Fundamental / AT
5.000 ~ 5.999	100	Fundamental / AT
6.000 ~ 7.999	90	Fundamental / AT
8.000 ~ 9.999	70	Fundamental / AT
10.000 ~ 11.999	60	Fundamental / AT
12.000 ~ 14.999	50	Fundamental / AT
15.000 ~ 19.999	40	Fundamental / AT
20.000 ~ 27.000	30	Fundamental / AT
27.000 ~ 32.999	50	Fundamental / BT
33.000 ~ 40.000	40	Fundamental / BT
24.576 ~ 47.999	80	3rd Overtone
48.000 ~ 85.000	60	3rd Overtone

### MECHANICAL DIMENSIONS

(mm)

