



# HC-49US, Thru-Hole Type

## Resistance Weld Crystal

### Applications:

- Notebook PC
- Portable PC

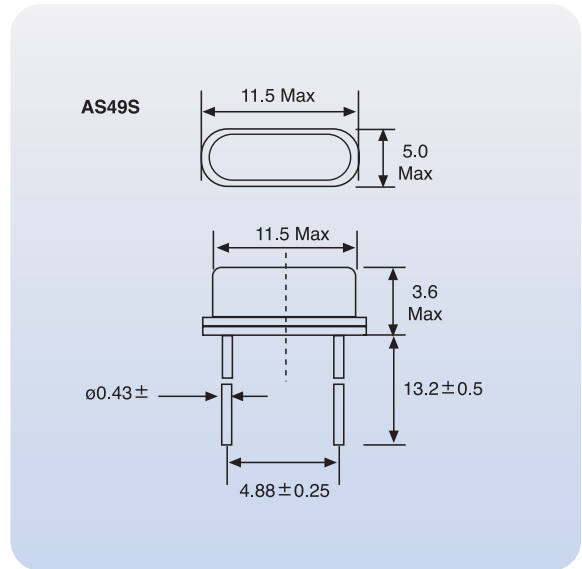
### FEATURES

- Metal Welded Package
- Excellent Frequency Aging Stability
- High Shock Resistance
- High Heat Resistance
- RoHS Compliant

### SPECIFICATION

MODEL		AS49S
Frequency		
Frequency Range (Fundamental)	MHz	3.200 ~ 40.000
Frequency Range (3rd overtone)		24.000 ~ 80.000
Frequency Tolerance (25°C)	ppm	± 10 ~ ± 50
Frequency Stability (Ref to 25°C)	ppm	± 10 ~ ± 50
Environmental Condition		
Operating Temperature Range	°C	-10 to +70
Storage Temperature Range	°C	-40 to +85
Aging	ppm/Year	± 5 Max.
Electrical Specifications		
Test Circuit		S&A 350A with $\pi$ Fixture
Load Capacitance (CL)	pF	10pF ~ Series (Customer Specified)
Drive Level	uW	0.01uW Min.
Equivalent Series Resistance	$\Omega$	see table
Insulation Resistance		More than 500M $\Omega$ at DC 100V
Shunt Capacitance (Co)	pF	5.0 (Max.)

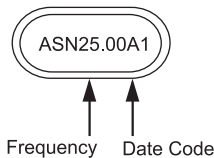
### DIMENSION (mm)



### Mode/Cut and Equivalent Series Resistance ( $\Omega$ )

Frequency (MHz)	Mode	Max ESR $\Omega$	MODEL	H(mm) SMD High	h(mm) Body High
3.200~ 3.999	Fundamental/AT	200	AS49S	-	3.6 Max.
4.000~5.999	Fundamental/AT	100	AS49SS	-	2.7 Max.
6.000~7.999	Fundamental/AT	60	AS49SD	3.8±0.3	3.3±0.3
8.000~11.999	Fundamental/AT	50	AS49SSD	3.0±0.3	2.3±0.3
12.000~14.999	Fundamental/AT	40			
15.000~37.000	Fundamental/AT	30			
20.000~45.000	Fundamental/BT	30			
24.000~44.999	3rd overtone/AT	80			
45.000~80.000	3rd overtone/AT	60			

### MARKING RULE



### PART NUMBERING GUIDE

Example: AS49SD-25M-FE160E2

MODEL	Frequency	Mode	Tolerance	CL	Stability	OP Temp Range
AS49S	In MHZ	F: Fundamental 3: 3rd Overtone	A: ± 10ppm B: ± 15ppm C: ± 20ppm D: ± 25ppm E: ± 30ppm F: ± 50ppm G: ± 100ppm O: Others	080: 8pF 125: 12.5pF 160: 16pF 180: 18pF 200: 20pF 300: 30pF 320: 32pF S: Series	A: ± 10ppm B: ± 15ppm C: ± 20ppm D: ± 25ppm E: ± 30ppm F: ± 50ppm G: ± 100ppm O: Others	1: 0 to +70°C 2: -10 to +70°C 3: -20 to +70°C 4: -20 to +80°C 5: -40 to +85°C 6: -40 to +105°C 0: Others