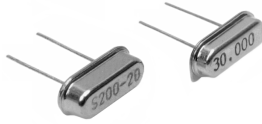


### Technical Data

49S/49L Series



#### Description

The 49S / 49L Series is a miniature AT or BT cut strip resonator crystal housed in low profile packages meeting the standard 0.200" board spacing.

#### Applications & Features

- Low profile
- AT or BT cut performance
- Resistance weld seal

<b>Frequency Range:</b>	3.2 MHz to 80 MHz 3.2 to 29.999 MHz, AT Fundamental 26.8 to 50.000 MHz, BT Fundamental 30.0 to 80.000 MHz, AT 3rd OT
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<b>Temperature Range:</b>	Operating: -20 to +70°C (-40 to +85°C available) Storage: -55 to +125°C
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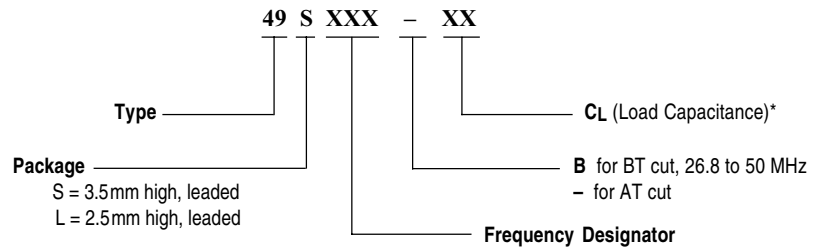
<b>Frequency Stability Tolerance:</b>	±50 ppm -20 to +70°C (0 to -100 ppm for BT)
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<b>Characteristics at 25°C ±2°C:</b>	
Freq. Calibration Tolerance:	±50 ppm (tighter available)
Load Capacitance:	16 pF to 32 pF or series resonance
Effective Series Resistance:	30 to 200Ω (frequency dependent)
Drive Level:	25μW correlation, 500μW max
Shunt Capacitance:	7pF max

<b>Mechanical:</b>	
Shock:	MIL-STD-883, Method 2002, Condition B
Solderability:	MIL-STD-883, Method 2003
Terminal Strength:	MIL-STD-202, Method 211, Conditions A and C
Vibration:	MIL-STD-883, Method 2007, Condition A
Solvent Resistance:	MIL-STD-202, Method 215
Resistance to Soldering Heat:	MIL-STD-202, Method 210, Condition B

<b>Environmental:</b>	
Gross Leak Test:	MIL-STD-883, Method 1014, Condition C
Fine Leak Test:	MIL-STD-883, Method 1014, Condition A
Thermal Shock:	MIL-STD-883, Method 1011, Condition A
Moisture Resistance:	MIL-STD-883, Method 1004

#### Part Numbering Guide:



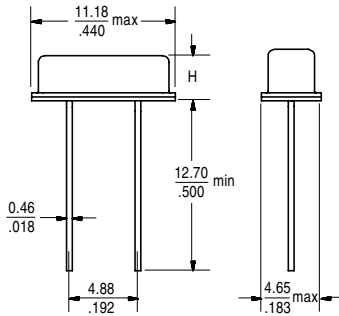
\* If no CL value is specified, crystal is calibrated for series resonance.  
Example: 49S120 (Part marked: S120)

If CL value specified, crystal is calibrated for parallel resonance.  
Example: 49S073-20 (Part marked: S073-20)

### Technical Data

### 49S/49L Series

#### Package Details



49S Series

TYPE	H
49S	3.5 .138 max
49L	2.5 .098 max

Scale: None (Dimensions in  $\frac{\text{mm}}{\text{inches}}$ )

#### Common Frequencies:

The following selection chart lists series of crystals considered standard. Special frequencies and load calibrations are available upon request.

Frequency MHz	Saronix Part Number	Max ESR (Fund)	Saronix Part Number	Max ESR (3rd OT)
3.579545	49S035-18	200		
3.686400	49S037	160		
3.686400	49S037-20	160		
4.000000	49S040	150		
4.915200	49S049	150		
5.068800	49S051	120		
6.000000	49S060	100		
7.372800	49S073-20	80		
8.000000	49S080	80		
10.000000	49S100	60		
11.059200	49S111-20	60		
12.000000	49S120	60		
12.288000	49S122-20	60		
14.318180	49S143-32	30		
15.000000	49S150	30		
16.000000	49S160	30		
16.000000	49S160-20	30		
18.000000	49S180-20	30		
18.432000	49S184	30		
19.660800	49S196-20	30		
20.000000	49S200-20	30		
20.000000	49S200-50	30		
24.000000	49S240	30		
24.000000	49S240-16	30		
24.000000	49S240-20	30		
24.576000	49S245	30		
24.576000	49S245-16	30		
25.000000	49S250	30		
25.000000	49S250-16	30		
26.800000	49S268B	30		
26.800000	49S268B16	30		
28.000000	49S280B	30		
28.000000	49S280B16	30		
29.491200	49S294B	30		
29.491200	49S294B16	30		
30.000000	49S300B	30	49S300	80
30.000000	49S300B16	30	49S300-16	80
32.000000	49S320B	30	49S320	80
32.000000	49S320B16	30	49S320-16	80
32.256000	49S322B	30	49S322	80
32.256000	49S322B22	30	49S322-22	80
33.000000	49S330B	30		
33.333000	49S333B	30		
33.868000	49S338B	30		
35.251200	49S352B	30	49S352	80
35.251200	49S352B18	30	49S352-18	80
36.000000	49S360B	30	49S360	80
36.000000	49S360B22	30	49S360-22	80
40.000000	49S400B	30	49S400	80
40.000000	49S400B16	30	49S400-16	80
40.320000	49S403B	30	49S403	80
40.960000			49S409	80
42.000000	49S420B	30	49S420	80
42.000000	49S420B16	30	49S420-16	80
42.500000			49S425	80
45.000000	49S450B	30	49S450	80
45.000000	49S450B16	30	49S450-16	80
46.000000	49S460B	30	49S460	80
46.000000	49S460B16	30	49S460-16	80
48.000000			49S480	80
48.000000			49S480-16	80
50.000000	49S500B	30	49S500	80
50.000000	49S500B16	30	49S500-16	80
52.416000			49S524	80
56.448000			49S564	80
60.000000			49S600	80
60.000000			49S600-16	80
66.666667			49S666	80
66.666667			49S666-16	80

All specifications are subject to change without notice.

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