

# Surface Mount HC-49

- Lower ESR than AT-Strip crystals
- SMD profile
- Grounded case better for EMI

**Series C49J**



**Part Numbering Example: C49J Z - A1 B2 C2 180 - 3.579545 D18 - 3**

C49J	Z	A1*	B2	C2	180	3.579545	D18	- 3
SERIES	ADDED FEATURES	OPERATING TEMP.	STABILITY	TOLERANCE	RESISTANCE	FREQUENCY	LOAD CAP.	OVERTONE
C49J	BLANK = BULK PACK Z = TAPE AND REEL	A0 = -10°C ~ +60°C A1 = -10°C ~ +70°C A2 = -40°C ~ +85°C A3 = -55°C ~ +125°C	B1 = ±100 B2 = ± 50 B3 = ± 30 B4 = ± 10	C1 = ±100 C2 = ± 50 C3 = ± 30 C4 = ± 10	SEE CHART BELOW		D16,18,20,ETC. DS = SERIES	BLANK: FUND. -3: 3rd OT -5: 5th OT -7: 7th OT -BT: BT Cut

*\*NOTE: The above ABC combinations cover basic specification options. We tailor our crystal specifications to meet customer requirements. Please contact our sales department if you don't see exactly what you need.*

## Specifications:

<b>Frequency Range:</b>	1.8432 ~ 150.000 MHz
<b>Operating Temperature:</b>	-10°C ~ + 70°C <i>Standard</i> -40°C ~ + 85°C -55°C ~ +125°C
<b>Frequency Stability:</b>	±100 ppm ± 50 ppm <i>Standard</i> ± 30 ppm ± 10 ppm
<b>Frequency Tolerance:</b> (at 25°C)	±100 ppm ± 50 ppm <i>Standard</i> ± 30 ppm ± 10 ppm
<b>Load Capacitance:</b>	Standard 18 pF or series. Please specify your required load.
<b>Resistance:</b>	Maximum resistance corresponds to frequency. See chart below.
<b>Standard:</b>	Mode: Fundamental, 3rd, 5th, or 7th Overtone Shunt Capacitance: 7 pF Max Aging: ± 5 ppm/year Drive Level: 1.0 mW Max
<b>Optional Features:</b>	Vinyl Sleeves Tape and Reel (1K per Reel)

Note: Not all combinations of the above tolerances, stabilities, and temperature ranges are available. Consult the factory if your requirement is not standard.

## Resistance Chart: All resistances are maximum values.

### EQUIVALENT SERIES RESISTANCE (ESR), MODE OF OPERATION (MODE), AND CUT

Frequency MHz	ESR(Ω)	Mode/cut	Frequency MHz	ESR (Ω)	Mode/cut
1.8432~1.999	650 Max	Fund./AT	5.000~5.999	75 Max	Fund./AT
2.000~2.399	550 Max	Fund./AT	6.000~6.999	50 Max	Fund./AT
2.400~2.999	350 Max	Fund./AT	7.000~7.999	40 Max	Fund./AT
3.000~3.199	250 Max	Fund./AT	8.000~9.999	35 Max	Fund./AT
3.200~3.499	200 Max	Fund./AT	10.000~12.999	30 Max	Fund./AT
3.500~3.599	180 Max	Fund./AT	13.000~32.768	25 Max	Fund./AT
3.600~3.899	150 Max	Fund./AT	24.000~29.999	60 Max	3rd Overtone/AT
3.900~3.999	120 Max	Fund./AT	30.000~74.999	40 Max	3rd Overtone/AT
4.000~4.099	100 Max	Fund./AT	75.000~119.999	80 Max	5th Overtone/AT
4.100~4.999	80 Max	Fund/AT	120.000~150.000	100 Max	5th Overtone/AT

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