



Quartz Crystal

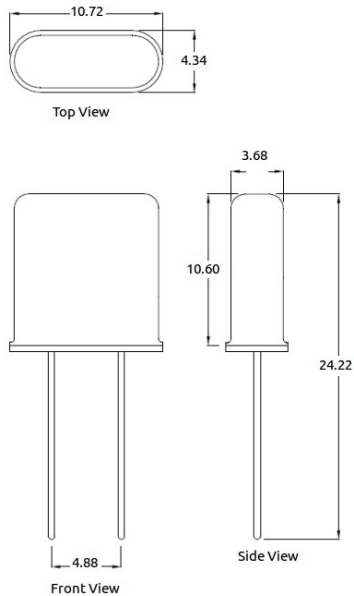
HC-49/T

Features

- All metal welded package
- 1.8432 MHz ~ 150 MHz
- RoHS Compliant

Mechanical Specifications

Outline



▲ All dimensions are in mm. Tolerance is ± 0.2 mm, unless otherwise specified.

Table 1: General Specifications

Frequency Range	1.8432 MHz ~ 150 MHz
Frequency Tolerance @ 25°C	Select from Table 4
Operating Temperature Range (OTR)	Select from Table 4
Temperature Stability	Select from Table 4
Equivalent Series Resistance (ESR)	As per Table 3
Drive Level	100 μ Watts (typical)
Shunt Capacitance, C_0	7.0 pF (max.)
Resonance Condition	XXS – Series, XXP – Parallel with xx pF (for parallel, please specify the xx value in pF)
Aging @ 25°C	Resistance Weld: ± 3 ppm (max.)/ Year Cold Weld: ± 1 ppm (max.)/ Year

Table 2: Frequency Range By Mode of Oscillation

Fundamental	3rd Overtone	5th Overtone
1.8432 to 36.864 MHz	20 to 85 MHz	60 to 150 MHz

Table 3: Max. ESR

Frequency Range (MHz)	ESR	Frequency Range (MHz)	ESR
Fundamental		3rd Overtone	
1.8432 to ≤ 2.3	800 Ω	20.0 to ≤ 30.0	35 Ω
2.3 to ≤ 2.8	450 Ω	30.0 to ≤ 85.0	30 Ω
2.8 to ≤ 3.0	250 Ω	5th Overtone	
3.0 to ≤ 3.5	150 Ω	60.0 to ≤ 100.0	70 Ω
3.5 to ≤ 4.5	100 Ω	100.0 to ≤ 150.0	80 Ω
4.5 to ≤ 5.0	80 Ω		
5.0 to ≤ 7.0	60 Ω		
7.0 to ≤ 9.0	45 Ω		
9.0 to ≤ 12.0	30 Ω		
12.0 to ≤ 17.0	25 Ω		
17.0 to ≤ 36.864	20 Ω		

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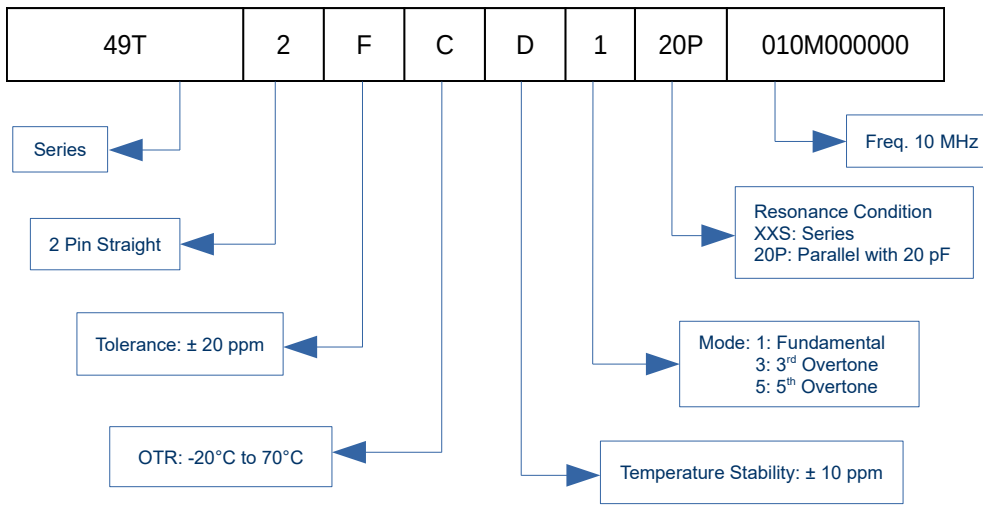
Table 4: Operating Temperature Range and Frequency Tolerance/ Temperature Stability

OTR Codes	Stability Codes		B	D	E	F	G	M	K
	Temperature Stability		± 5 ppm	± 10 ppm	± 15 ppm	± 20 ppm	± 25 ppm	± 50 ppm	± 100 ppm
A	Operating Temperature Range	0°C to +50°C							
B		0°C to +60°C							
F		0°C to +70°C							
D		-10°C to +60°C							
E		-10°C to +70°C							
C		-20°C to +70°C							
G		-30°C to +80°C							
H		-30°C to +85°C							
I		-40°C to +85°C							
J		-40°C to +90°C							
K		-55°C to +105°C							
L		-55°C to +125°C							

 Denotes Available  Denotes not Available

Ordering Information

Example



Specifications subject to change without notice

Rev. Date: 5th July 2021

Note: Not all combination of options are available. Other specifications may be available upon request.

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