

Product Specification



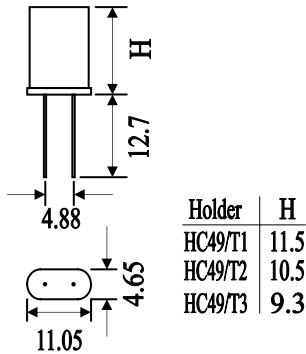
This product is certified to comply with the RoHS Directive 2002/95/EC.



HC49/T Crystal



- 11.05x4.65x9.30mm case
- Metal lid
- Industry standard
- Resistance welded
- Through-hole
- Wide frequency range
- Tight tolerance



Specification

Frequency range	1.8 ~ 200MHz														
Adjustment@25°C	See Table 2														
Temp. Stability	See Table 1														
Temp. range	See Table 1														
ESR	<table border="1"> <tbody> <tr> <td>1.8 ~ 2.99MHz</td> <td>400Ω</td> </tr> <tr> <td>3.0 ~ 4.99MHz</td> <td>90Ω</td> </tr> <tr> <td>5.0 ~ 9.99MHz</td> <td>40Ω</td> </tr> <tr> <td>10.0 ~ 48.0MHz</td> <td>25Ω (Fundamental)</td> </tr> <tr> <td>20.0 ~ 100MHz</td> <td>40Ω (3rd overtone)</td> </tr> <tr> <td>60.0 ~ 150MHz</td> <td>80Ω (5th overtone)</td> </tr> <tr> <td>140 ~ 200MHz</td> <td>90Ω (7th overtone)</td> </tr> </tbody> </table>	1.8 ~ 2.99MHz	400Ω	3.0 ~ 4.99MHz	90Ω	5.0 ~ 9.99MHz	40Ω	10.0 ~ 48.0MHz	25Ω (Fundamental)	20.0 ~ 100MHz	40Ω (3 rd overtone)	60.0 ~ 150MHz	80Ω (5 th overtone)	140 ~ 200MHz	90Ω (7 th overtone)
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Load capacitance	See Table 3														
Shunt capacitance	7.0pF max.														
Drive level	10uW typ. 100uW max.														
Storage temp.	-40 ~ +85°C														
Ageing	5ppm/year max.														

'*' suffix denotes RoHS Compliant

Standard packing: Bulk

Ordering Code Guide

Series Code	Frequency	Specification	Holder Type	RoHS
X	xxMxxx	G C B E	49T1, 2, 3	*

Magna use a 4 lettering coding system for defining standard specifications as shown below. Where other parameters are specified (such as C1 or pullability) then a customer specific datasheet will be produced. Other temperature ranges, stabilities, adjustments and load capacitances are available. Please contact us for advice.

1 st Letter	Temp. range	See Table 1
2 nd Letter	Temp. stability	See Table 1
3 rd Letter	Adjustment tolerance	See Table 2
4 th Letter	Load capacitance	See Table 3

Please note that not all combinations of temperature and stability are possible. Please see Table 1 for guide to availability.

Issue 2 30/06/10

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Crystal Ordering Codes

Table 1: Temperature range v. Stability

Temp. Range & Stability		±3ppm	±5ppm	±7.5ppm	±10ppm	±15ppm	±20ppm	±30ppm	±50ppm
		K	J	H	G	F	E	B	C
0 ~ +50°C	J	✓	✓	✓	✓	✓	✓	✓	✓
-5 ~ +55°C	H	✓	✓	✓	✓	✓	✓	✓	✓
-10 ~ +60°C	G	-	✓	✓	✓	✓	✓	✓	✓
-20 ~ +70°C	E	-	✓	✓	✓	✓	✓	✓	✓
-30 ~ +80°C	C	-	-	✓	✓	✓	✓	✓	✓
-40 ~ +85°C	M	-	-	-	✓	✓	✓	✓	✓

Other temperature ranges and stabilities are available.

Table 2: Adjustment tolerance

±5ppm	±10ppm	±15ppm	±20ppm	±25ppm	±30ppm	±50ppm	±100ppm
J	G	F	E	D	B	C	A

Other adjustment tolerances are available.

Table 3: Load capacitance

10pF	12pF	16pF	18pF	20pF	30pF	32pF	Series
A	R	K	Q	C	E	F	S

Other load capacitances are available. Min. 6pF