



### I. Frequenzbereich: 1,8 ... 250 MHz

II. Gehäuse	Code
HC-49/U	
H=13,2 mm	20
H=10,6 mm	21
H=9,2 mm	22

III. Schwingungs- mode	Code
MHz	
Grundton	1,8 ... 35
3. Oberton	15 ... 100
5. Oberton	45 ... 160
7. Oberton	100 ... 210
9. Oberton	140 ... 250

IV. Resonanzart	Code
Serie	00
Serie mit C <sub>L</sub> wählbar: ≥ 6pF	C <sub>L</sub> -Wert

### V. Frequenztoleranz bei +25 ±2 °C

■ =herstellbar

MHz	±3 · 10 <sup>-6</sup>	±5 · 10 <sup>-6</sup>	±10 · 10 <sup>-6</sup>	±20 · 10 <sup>-6</sup>	±50 · 10 <sup>-6</sup>
1,8 ... 10	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
10 ... 35	< 25 MHz	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
15 ... 100	< 75 MHz	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
45 ... 160	< 100 MHz	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
100 ... 210	<span style="background-color: red;"></span>	< 140 MHz	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
140 ... 250	<span style="background-color: red;"></span>	< 180 MHz	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
Code	C1	E1	J1	B2	H2

### VI. Frequenzabweichung im Temperaturbereich bezogen auf +25 °C

■ =herstellbar

Code a	Frequenz	Frequenzabweichung ( · 10 <sup>-6</sup> )																				
		1,8 ... 4,0 MHz						4,0 ... 6,0 MHz						6,0 ... 250 MHz								
Temp.- bereich °C		±7	±10	±20	±25	±30	±50	±5	±7	±10	±20	±25	±30	±50	±3	±5	±7	±10	±20	±25	±30	±50
B	0 ... +50	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
H	-10 ... +60	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
M	-20 ... +70	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
R	-30 ... +80	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
U	-40 ... +90	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
W	-55 ... +105	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
X	-55 ... +125	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>	<span style="background-color: red;"></span>
		±7	±10	±20	±25	±30	±50	±5	±7	±10	±20	±25	±30	±50	±3	±5	±7	±10	±20	±25	±30	±50
Code b		07	10	12	13	14	20	05	07	10	12	13	14	20	03	05	07	10	12	13	14	20

Resonanzwiderstand  
dynamische Kapazität

R<sub>1</sub> ([Graph](#))  
C<sub>1</sub> ([Graph](#))

stat. Kapazität C<sub>0</sub>, Alterung,  
Schock, Vibration

([Tabelle](#))

Bestell-Nummer bilden:

Bestell-Codezahlen /-buchstaben aus den Tabellenfeldern I – VI  
in Reihenfolge zusammenstellen:

Beispiel:

I	II	III	IV	V	VI a+b
12,800 MHz	20	1	22	J1	R 10

ergibt Bestellnummer: 12,800 MHz / 20122J1R10

Schwingquarze mit anderen spezifischen Anforderungen, Daten, Frequenzabgleich im Kundenoszillator, Modifikation am Gehäuse,  
höhere Schock- und Vibrationsfestigkeit auf Anfrage. **Wir beraten Sie gerne!**

