



### 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	1
3. Oberton	15 ... 100	3
5. Oberton	45 ... 160	5
7. Oberton	100 ... 210	7
9. Oberton	140 ... 250	9

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>
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!**

