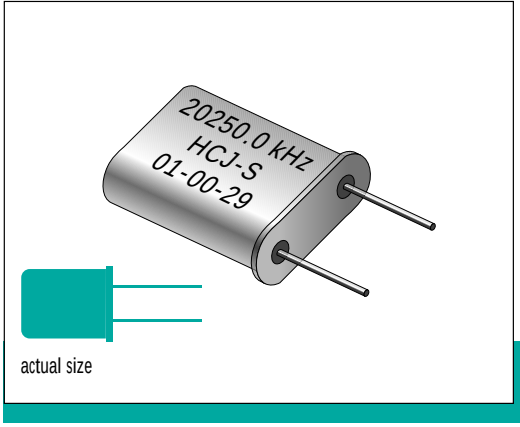

actual size

S series • HC49/U

high precision quartz crystals

features

- wide frequency range
- surface mount option

type	S (HC49/U)				
frequency (MHz)	3.5 ~ 38.0	20.0 ~ 105.0	50.0 ~ 175.0	70.0 ~ 250.0	90.0 ~ 315.0
	fundamental	3rd overtone	5th overtone	7th overtone	9th overtone
frequency tolerance at 25 °C	± 3 ppm ~ ± 15 ppm (other on request)				
frequency stability options	± 3 ppm 0 °C ~ +60 °C				
	± 5 ppm -20 °C ~ +70 °C				
	± 15 ppm -40 °C ~ +85 °C				
	± 25 ppm -50 °C ~ +105 °C				
	(other on request)				
storage temperature	-55 °C ~ + 125 °C				
load capacitance C_L	8 pF ~ 30 pF / series				
shunt capacitance C_0	< 7 pF				
drive level max.	100 µ W				
aging	< ± 3 ppm				

order information example:

Q - 20.250 - S - 30 - 5 / 5 - SMC

1. 2. 3. 4. 5. 6. 7.

1.	quartz:	Q
2.	frequency:	20.250 MHz
3.	type:	S (HC49/U)
4.	load capacitance:	30 pF (S for series)
5.	frequency stability at 25 °C:	± 5 ppm
6.	frequency vs temperature:	± 5 ppm
7.	special requirement:	SMC - surface mount with clip

test conditions:

a) acceleration:
1000 g /0.5 ms, 1/2 sine wave
b) shock (random drop):
height 75 cm, 3 times to hardwood surface ($\Delta R/R \leq 20\%$; $\Delta f/f \leq \pm 5$ ppm)
c) vibration:
f = 10 Hz ~ 55 Hz; amplitude = 1.5 mm; period = about 1 minute;
time = 2 h each direction
d) solderability:
according to DIN 68-2-6

marking:

1. line = frequency (fund. tone in kHz, overtones in MHz)
2. line = company code / load capacitance
3. line = date code / internal code

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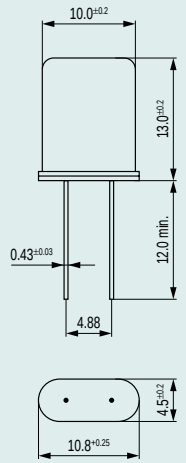
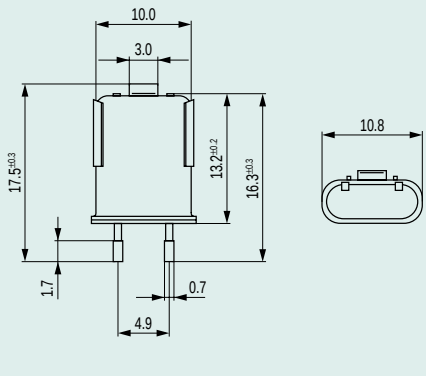
S series • HC49/U

HC49/U dimensions

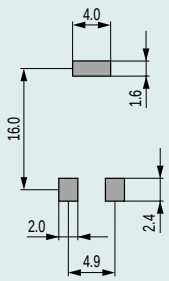


in mm

HC49/SMD-Clip dimensions

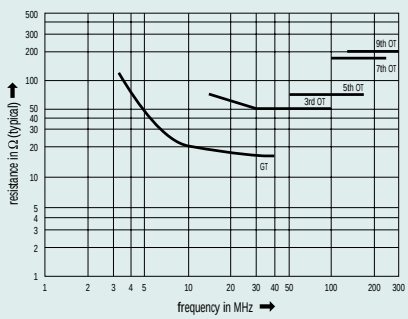


pad layout

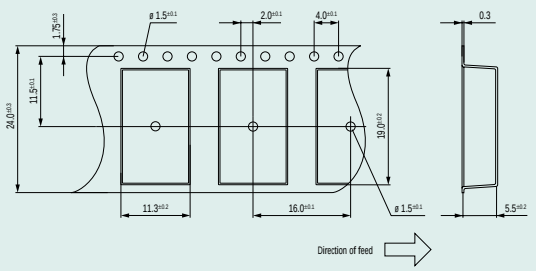


in mm

series resistance table (Rs)



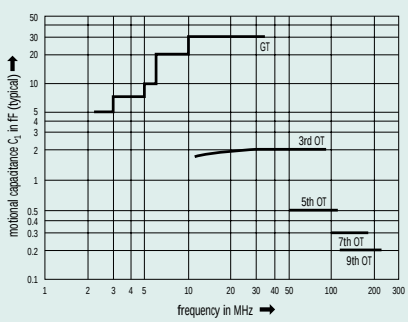
taping specification HC49/SMD



750 pcs per reel

in mm

motional capacitance table (C_1)



High Precision

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