actual size

Quartz Crystal · HC49/U-SMC

SMD Crystal Version · 17.5 x 10.8 mm

- available for developed frequencies only
- SMD version
- reflow soldering temperature: 260 °C max.

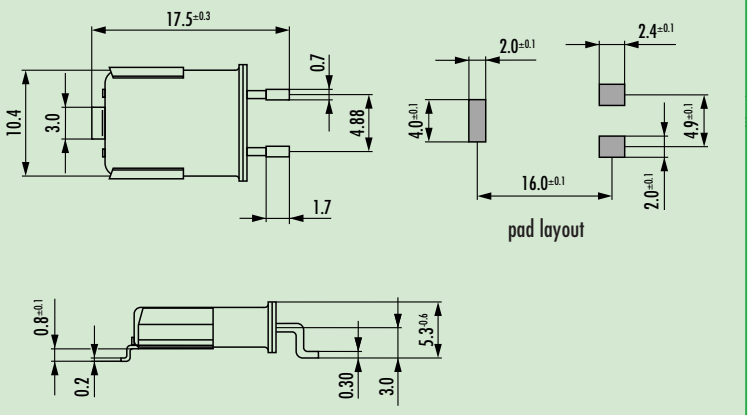
RoHS 2002/95/EC
RoHS compliant

Pb free: pins / pads

General Data

type	S (HC49/U-SMC)
frequency range	0.92160 / 1.000 MHz (fund. SL-cut)
	1.8432 ~ 40.0 MHz (fund. AT-cut)
	20.0 ~ 105.0 MHz (3rd OT AT-cut)
	50.0 ~ 175.0 MHz (5th OT AT-cut)
	70.0 ~ 250.0 MHz (7th OT AT-cut)
frequency tolerance at 25 °C	± 3 ppm ~ ± 50 ppm
load capacitance C_L	8 pF ~ 32 pF or series
shunt capacitance C_0	< 7 pF
storage temperature	-55 °C ~ +125 °C
drive level max.	1.0 mW
aging	< ± 5 ppm first year

Dimensions



in mm

Frequency Stability vs. Temperature

		± 3 ppm	± 5 ppm	± 10 ppm	± 30 ppm	± 50 ppm	± 100 ppm
0 °C ~ +60 °C		○	○	○			
-20 °C ~ +70 °C	STD.		○	○	●		
-40 °C ~ +85 °C	T1			○	○	●	
-40 °C ~ +90 °C	T4				○	○	○
-40 °C ~ +105 °C	T2				○	○	○
-40 °C ~ +125 °C	T3						○

● standard
○ available

ESR (series resistance Rs)

frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
0.92 / 1.000	fund.- SL	3000	800
1.8432	fund.- AT	800	400
2.00 ~ 2.999	fund.- AT	400	200
3.00 ~ 3.4999	fund.- AT	150	50
3.57 ~ 6.9999	fund.- AT	60	20
7.00 ~ 12.999	fund.- AT	30	15
13.0 ~ 40.000	fund.- AT	20	10
20.0 ~ 105.00	3rd OT - AT	80	35
50.0 ~ 175.00	5th OT - AT	150	70

Order Information

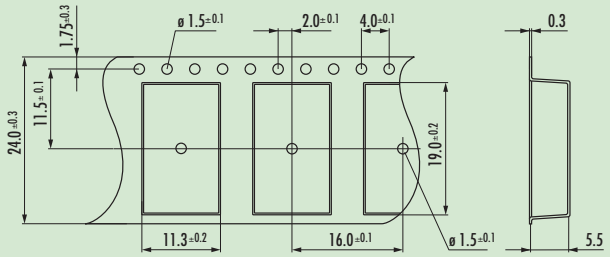
Q	frequency	type	load capacitance in pF	stability at 25 °C	stability vs. temp. range	SMD version	option
Quartz	0.9216 ~ 250.0 MHz	S	30 pF standard 12 pF ~ 32 pF S for series	± 3 ppm ~± 50 ppm see table	± 100 ppm SL-cut other see table	SMC	blank = -20 °C ~ +70 °C T1 = -40 °C ~ +85 °C T2 = -40 °C ~ +105 °C T3 = -40 °C ~ +125 °C T4 = -40 °C ~ +90 °C FU = for fundamental frequencies ≥ 20 MHz 3OT = 3rd overtone 5OT = 5th overtone 7OT = 7th overtone

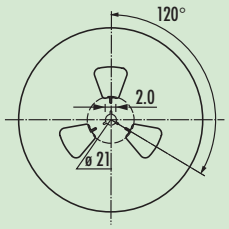
Example: Q 28.0-S-30-30/30-FU-SMC (Suffix LF = RoHS compliant / Pb free pins)

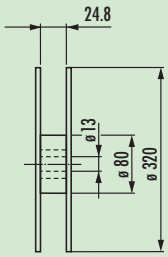
Jauch Quartz GmbH • e-mail: info@jauch.de
full data can be found under: www.jauch.de / www.jauch.co.uk / www.jauch.fr / www.jauchusa.com
All specifications are subject to change without notice

Quartz Crystal · HC49/U-SMC

Taping Specification SMD Version





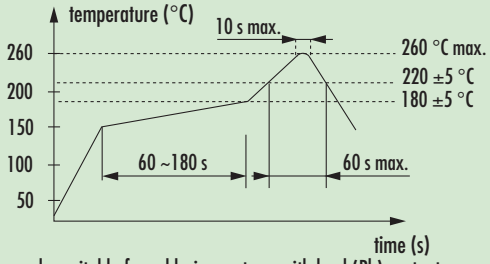


750 pcs per reel

Direction of feed

in mm

Reflow Soldering Profile



note: parts are also suitable for soldering systems with lead (Pb) content

Marking

frequency
company code / load capacitance
data code / internal code