

Quartz Crystal · HC-49/U

Pin Type Crystal · 10.8 x 4.5 mm

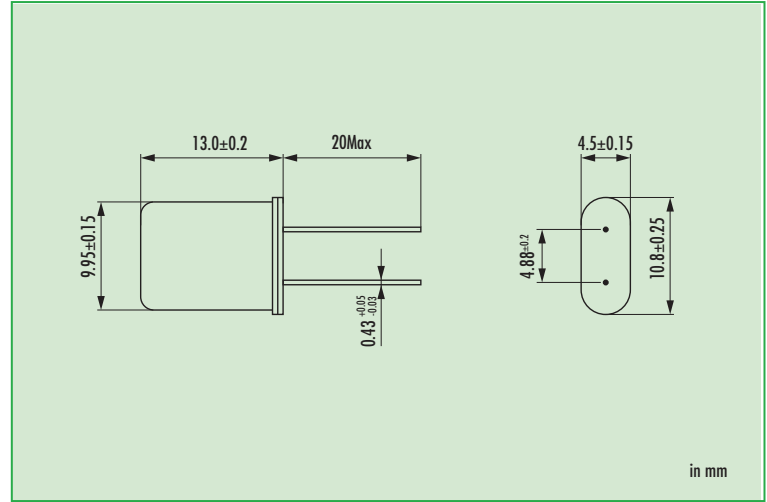
- available for developed frequencies only
- not preferable for new design-in
- wave soldering temperature: 260 °C max.



General Data

type	HC-49/U
frequency range	1.8432 ~ 40.00 MHz (fund. AT-cut) 20.000 ~ 105.0 MHz (3rd OT AT-cut)
frequency tolerance at 25 °C	± 10 ppm ~ ± 50 ppm
load capacitance C_L	8 pF ~ 32 pF or series
shunt capacitance C_0	< 7 pF
storage temperature	-40 °C ~ +125 °C
series resistance	see table
drive level max.	100 uW (others recommended)
aging	± 5 ppm max first year

Dimensions



* other frequency upon request

Frequency Stability vs. Temperature

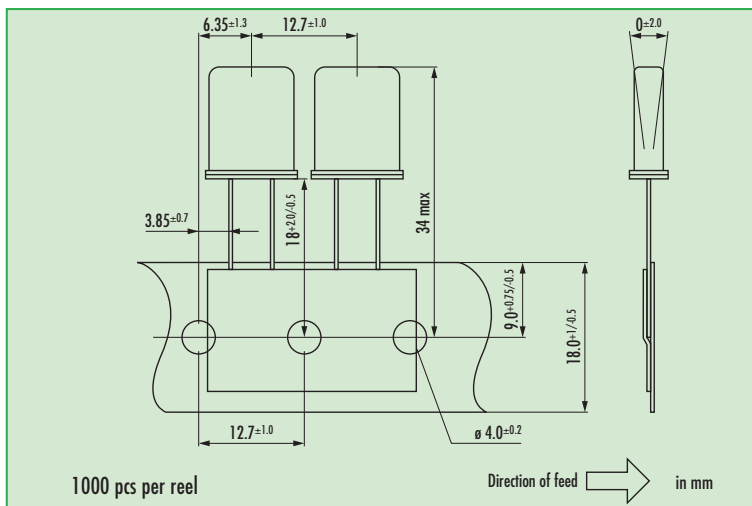
	± 5 ppm	± 10 ppm	± 20 ppm	± 30 ppm	± 50 ppm	± 100 ppm
0 °C ~ +60 °C		○				
-20 °C ~ +70 °C	STD.	○	○	●		
-40 °C ~ +85 °C	T1		○	○	●	
-40 °C ~ +90 °C	T4			○	○	○
-40 °C ~ +105 °C	T2			○	○	○
-40 °C ~ +125 °C	T3				○	○

● standard
○ available

ESR (series resistance R_s)

frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
1.8432	fund.- AT	800	400
2.00 ~ 2.999	fund.- AT	400	150
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 ~ 29.999	3rd OT - AT	80	35
30.0 ~ 105.00	3rd OT - AT	60	30

Taping Specification Through Hole Version



Marking

frequency with load capacitance code
company code / date code / internal code

	Jan.	Febr.	Mar.	Apr.	May	June	July	Aug.	Sept.	Okt.	Nov.	Dec.
2011 2015	a	b	c	d	e	f	g	h	i	k	l	m
2012 2016	n	p	q	r	s	t	u	v	w	x	y	z
2013 2017	A	B	C	D	E	F	G	H	J	K	L	M
2014 2018	N	P	Q	R	S	T	U	V	W	X	Y	Z

