

actual size

Quartz Crystal - HC252M4

4 Pad Version · 2.5 x 2.0 mm

- ± 10 ppm type available
- EMI shielding possible by grounded lid
- reflow soldering temperature: 260 °C max.
- ceramic / metal package



General Data

type	HC252M4	
frequency range	12.0 ~ 54.0 MHz	(fund. AT-cut)
frequency tolerance at 25 °C	± 10 ppm / ± 30 ppm	
load capacitance C_L	12 pF standard	(option: 8 pF ~ 30 pF / series)
shunt capacitance C_0	< 5 pF	
storage temperature	-40 °C ~ +90 °C	
drive level max.	100 µW	(10 µW recommended)
aging	< ± 3 ppm first year	(< ± 1 ppm for tol. ± 10 ppm)

ESR (series resistance Rs)

frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
12.0 ~ 12.999	fund. - AT	200	170
13.0 ~ 15.999	fund. - AT	150	120
16.0 ~ 18.999	fund. - AT	80	50
19.0 ~ 21.999	fund. - AT	80	40
22.0 ~ 24.999	fund. - AT	70	35
25.0 ~ 29.999	fund. - AT	60	30
30.0 ~ 39.999	fund. - AT	50	25
40.0 ~ 54.000	fund. - AT	50	20

Frequency Stability vs. Temperature

		± 10 ppm	± 15 ppm	± 20 ppm	± 30 ppm	± 50 ppm
-20 °C ~ +70 °C	STD.	●	○	○	●	○
-40 °C ~ +85 °C	T1			○	○	○

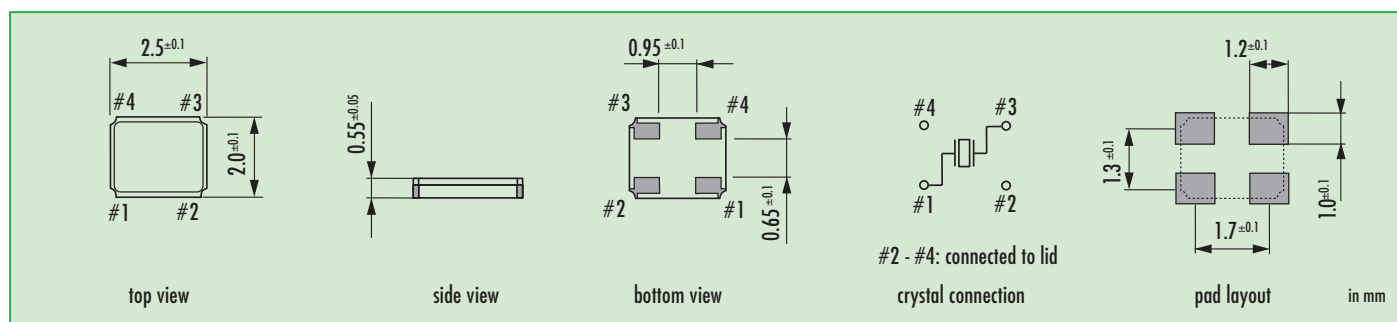
● standard
○ available

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

Dimensions



Taping Specification

