

DATENBLATT / DATASHEET

Specification: QTC-HC52U

Crystal unit: HC-52/U

Date: 11.03.2009
ROHS compliance

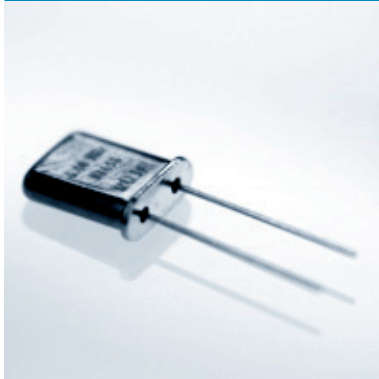
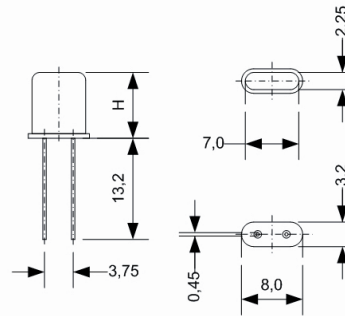


TABLE 1

ENCLOSURE	H/mm	CODE	
HC-52/U	8,6	01	
	7,8	02	starting with 10 MHz
	5,9	03	starting with 15 MHz

Scale 1:1



Metal housing: Resistance weld
Inert gas N₂/H₂
Laser engraving

TABLE 2

5,0 ... 250 MHz		UNIT	CONDITION
Frequency range	5 - 250	MHz	
Crystal cut	AT		
Enclosure	HC-52/U		
Mode	1. 5 – 40 MHz 3. 20 – 100 MHz 5. 50 – 160 MHz 7. 100 – 210 MHz 9. 140 – 250 MHz		Fundamental mode 3 rd overtone 5 th overtone 7 th overtone 9 th overtone
Load capacitance	10 – 60 pF or Series	pF	
Shunt capacitance	5 – 10 MHz: < 2,5 pF 10 – 15 MHz: < 3,0 pF 15 – 250 MHz: < 4,0 pF	pF	
Motional capacitance			
Resistance R _r			see table 5
Frequency adjustment			see table 3
Frequency stability over temperature			see table 4
Aging 1 st year	< 2,0 – 3,0	ppm	
Shock	100g / 6ms		
Vibration	10 g _{SS} / 1,5 mm _{SS} 50 – 500 Hz		
Δf / f	< 5	ppm	
ΔR/R	< 20%		



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TABLE 3

FREQUENCY ADJUSTMENT AT +25°C ± 2 °C	FREQUENCY / MHz					CODE
	5 ~ 40	20 ~ 100	50 ~ 160	100 ~ 210	140 ~ 250	
Mode	1	3	5	7	9	
Frequency adjustment / ppm	± 3	± 3	± 3			C1
	± 5	± 5	± 5	± 5	± 5	E1
	± 10	± 10	± 10	± 10	± 10	J1
	± 20	± 20	± 20	± 20	± 20	B2
	± 50	± 50	± 50	± 50	± 50	H2

TABLE 4

FREQUENCY STABILITY OVER TEMPERATURE RELATED TO +25 °C		FREQUENCY DEVIATION / ppm							
5,0 ... 10 MHz: x 10 ... 250 MHz: o		± 3	± 5	± 7	± 10	± 20	± 25	± 30	± 50
Temperature range	Code	03	05	07	10	12	13	14	20
0 ... + 50°C	B	o	xo	xo	xo	xo	xo	xo	xo
-10 ... + 60°C	H	o	xo	xo	xo	xo	xo	xo	xo
-20 ... + 70°C	M		o	xo	xo	xo	xo	xo	xo
-30 ... + 80°C	R			o	xo	xo	xo	xo	xo
-40 ... + 90°C	U				o	xo	xo	xo	xo
-55 ... + 105°C	W						o	xo	xo
-55 ... + 125°C	X							o	xo

TABLE 5

MAX. RESISTANCE R _R	MODE	FREQUENCY / MHz	R _{MAX} / Ohm
	1	5 – 7,5	80
		7,5 – 9	60
		9 – 12	30
		12 – 16	16
		16 – 35	12
		3	20 – 30
	30 – 50		30
	50 – 100		22
	5	100 – 160	70
		7	100 – 210
	9		140 – 250

ORDERING CODE ⁽¹⁾	FREQUENCY [MHz]	ENCLOSURE CODE: TABLE 1	MODE: 1: FUND. 3,5,7,9: OT TABLE 2	LOAD CAP. : 00: SERIES 32: 32 pF TABLE 2	ADJ. TOLERANCE CODE: TABLE 3	TEMP. RANGE CODE: TABLE 4	FREQ. STAB. OVER TEMP. CODE: TABLE 4	SHUNT CAPACITANCE 35: 3,5 pF TABLE 2
	12,800	01	1	32	J1	M	10	35

⁽¹⁾ Other specification on request