

DATENBLATT / DATASHEET

Specification: QTTC-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 N<sub>2</sub>/H<sub>2</sub>  
Laser engraving

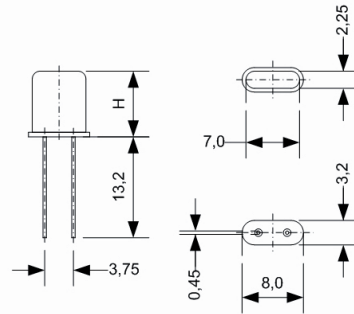


TABLE 2

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 <sup>rd</sup> overtone 5 <sup>th</sup> overtone 7 <sup>th</sup> overtone 9 <sup>th</sup> 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 <sub>r</sub>			see table 5
Frequency adjustment			see table 3
Nominal temperature and temp. tolerance			see table 4
Aging 1 <sup>st</sup> year	< 2,0 – 3,0	ppm	
Shock	100g / 6ms		
Vibration	10 g <sub>SS</sub> / 1,5 mm <sub>SS</sub> 50 – 500 Hz		
Δf / f	< 5	ppm	
ΔR/R	< 20%		



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TABLE 3

FREQUENCY ADJUSTMENT AT NOMINAL TEMPERATURE	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

NOMINAL TEMPERATURE AND TEMPERATURE TOLERANCE			
Temperature	Code	Temperature tolerance	Code
+40°C	40	± 3°C	C
+50°C	50	± 5°C	E
+55°C	55		
+60°C	60		
+65°C	65		
+70°C	70		
+75°C	75		
+80°C	80		
+85°C	85		
+90°C	90		
+95°C	95		

TABLE 5

MAX. RESISTANCE R <sub>R</sub>	MODE	FREQUENCY / MHz	R <sub>MAX</sub> / Ohm	
	1	5 – 7,5	80	
		7,5 – 9	60	
		9 – 12	30	
		12 – 16	16	
		16 – 35	12	
		3	20 – 30	42
	30 – 50		30	
	50 – 100		22	
	5		100 – 160	70
			7	100 – 210
	9			140 – 250

ORDERING CODE <sup>(1)</sup>	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	NOMINAL TEMPERATURE CODE: TABLE 4	SHUNT CAPACITANCE 25: 2,5 PF TABLE 2
	12,800	01	1	32	J1	70C	25

<sup>(1)</sup> Other specification on request