



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 |



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

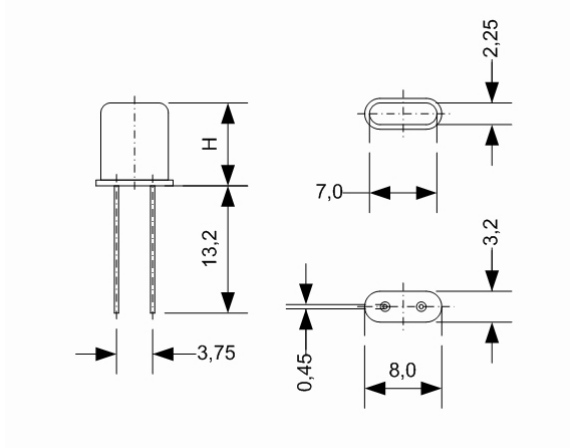


TABLE 2

| | 5,0 ... 250 MHz | UNIT | CONDITION |
|---|---|---------------------------------|--|
| Frequency range | 5 - 250 | MHz | |
| Crystal cut | AT | | |
| Enclosure | HC-52/U | | |
| Mode | 1. 5 - 40 3. 20 - 100 5. 50 - 160 7. 100 - 210 9. 140 - 250 | MHz MHz MHz MHz 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: < 3,0 pF 10 - 15 MHz: < 5,0 pF 15 - 250 MHz: < 7,0 pF | pF | |
| Motional capacitance | | | |
| Resistance R _R | | | see table 5 |
| Frequency adjustment | | | see table 3 |
| Nominal temperature and temp. tolerance | | | see table 4 |
| Aging 1 st year | < 2,0 - 3,0 | ppm | |
| Shock | 100g / 6ms | | |
| Vibration | 10g _{ss} / 1,5mm _{ss} 50 - 500 Hz | | |
| Δf / f | < 5 | ppm | |
| ΔR / R | < 20 % | | |



Specification: QTTC-HC52U

Crystal unit: HC-52/U

TABLE 3

| FREQUENCY ADJUSTMENT AT +25 ± 2°C | FREQUENCY [MHz] | | | | | |
|-----------------------------------|-----------------|------------|------------|-------------|-------------|------|
| | 5,0 ... 40 | 20 ... 100 | 50 ... 160 | 100 ... 210 | 140 ... 250 | CODE |
| 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 _R | MODE | FREQUENCY [MHz] | R _{RMAX} [Ω] |
|--------------------------------|------|-----------------|-----------------------|
| | 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 | 160 |
| | 9 | 140 - 250 | 200 |

TABLE 6

| 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 | NOMINAL TEMPRATURE CODE: TABLE 4 | SHUNT CAPACITANCE 25: 2,5pF TABLE 2 |
|------------------------------|-----------------|-------------------------|------------------------------------|--|------------------------------|----------------------------------|-------------------------------------|
| | 12,8 | 01 | 1 | 32 | J1 | 70C | 25 |

⁽¹⁾ Other specifications on request