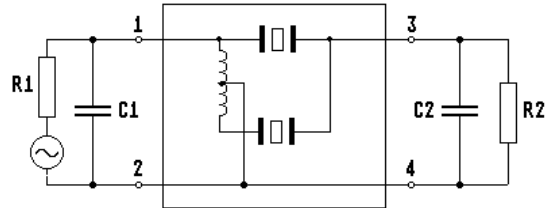
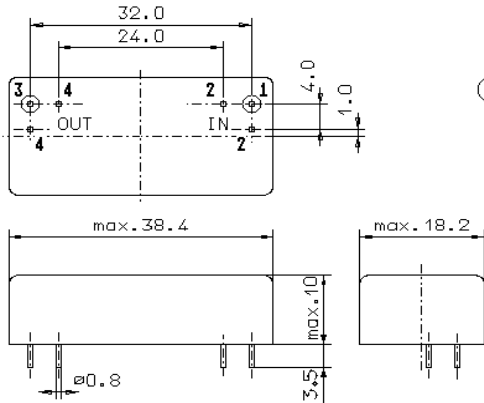


Specification for crystal filter:

**QF 70.0-4000/09**

**1. General**

1.1. Package:



- 1.2. Type name: QF 70.0-4000/09
- 1.3. Number of poles: 4
- 1.4. Operating temperature range: -40°C to +70°C
- 1.5. Storage temperature range: -45°C to +85°C

**2. Electric values**

- 2.1. Nominal centre frequency fo: 70.0 MHz
- 2.2. **Pass band**
  - 2.2.1. Bandwidth between 3 dB - frequencies:
    - at -20°C to +70°C:  $\geq f_0 \pm 18.5 \text{ kHz}$
    - $\geq f_0 \pm 20.0 \text{ kHz}$
  - 2.2.2. Group delay distortion in the range:
    - at -20°C to +70°C:  $\leq 3.0 \mu\text{s}$  at  $f_0 \pm 18.5 \text{ kHz}$
    - $\leq 2.5 \mu\text{s}$  at  $f_0 \pm 20.0 \text{ kHz}$
  - 2.2.3. Insertion loss:  $\leq 5 \text{ dB}$   
( measured on smallest attenuation in pass band )
- 2.3. **Stop band**
  - 2.3.1.  $f_0 \pm 100 \text{ kHz}$ :  $\geq 40 \text{ dB}$
  - $f_0 \pm 95 \text{ kHz}$  at -20°C to +70°C:  $\geq 40 \text{ dB}$
  - 2.3.2. Alternate attenuation:  $\geq 50 \text{ dB}$  ( except spurious )
- 2.4. Terminating impedance ( input and output ):  $50 \Omega // 0 \text{ pF}$
- 3. Marking: manufacturer, date code  
QF 70.0-4000/09
- 4. Environment conditions: Corresponding to Vectron standard CF001

Edited by: \_\_\_\_\_ date: \_\_\_\_\_ name: \_\_\_\_\_