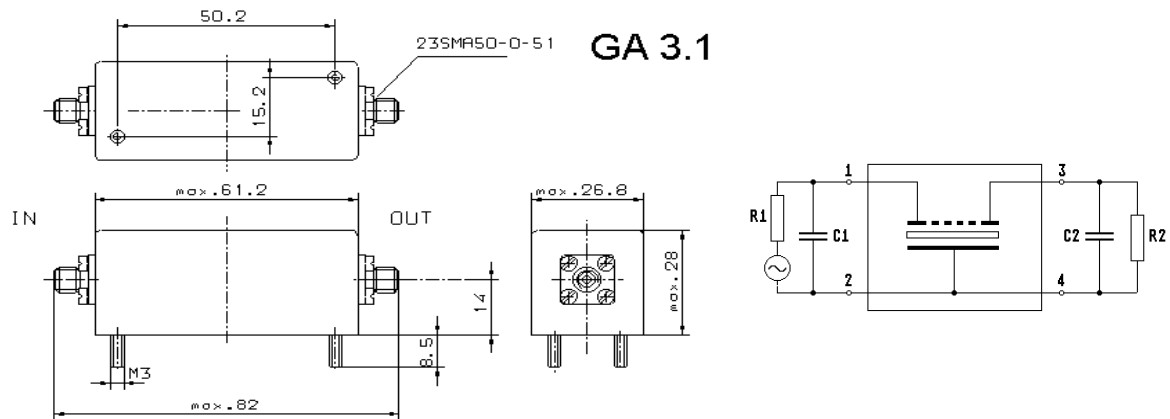


Specification for crystal filter:

**QF 60.0-4000/02**

## 1. General

### 1.1. Package:



- |                                   |                 |
|-----------------------------------|-----------------|
| 1.2. Type name:                   | QF 60.0-4000/02 |
| 1.3. Number of poles:             | 4               |
| 1.4. Operating temperature range: | -20°C to +70°C  |
| 1.5. Storage temperature range:   | -35°C to +85°C  |

## 2. Electric values

- |                                       |          |
|---------------------------------------|----------|
| 2.1. Nominal centre frequency $f_0$ : | 60.0 MHz |
|---------------------------------------|----------|

### 2.2. Pass band

- |   |  |
|---|--|
| 2.2.1. Bandwidth between 6 dB - frequencies:                                | $\geq f_0 \pm 20$ kHz                          |
| 2.2.2. Ripple:  | Gaussian                                       |
| 2.2.3. Group delay distortion:  | $< 2 \mu\text{s}$ at $f_0 \pm 20$ kHz and 25°C |
| 2.2.4. Group delay:   | $< 18 \mu\text{s}$ at $f_0$                    |
| 2.2.5. Insertion loss:<br>( measured on smallest attenuation in pass band ) | $\leq 12$ dB                                   |

### 2.3. Stop band

- |                               |                                  |
|-------------------------------|----------------------------------|
| 2.3.1. $f_0 - 200$ kHz        | $\geq 40$ dB                     |
| 2.3.2. $f_0 + 250$ kHz        | $\geq 40$ dB ( except spurious ) |
| 2.3.3. Alternate attenuation: | $\geq 40$ dB                     |

- |  |                     |
|--|---------------------|
| 2.4. Terminating impedance ( input and output ): | $50 \Omega // 0$ pF |
|--|---------------------|

- |                            |  |
|----------------------------|--|
| 3. Marking on the package: | manufacturer, date code<br>QF 60.0-4000/02 |
|----------------------------|--|

- |                            |                                   |
|----------------------------|-----------------------------------|
| 4. Environment conditions: | Corresponding to Telefilter CF001 |
|----------------------------|-----------------------------------|

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