

# Crystal filter

## QF60.0-4000/02



### Application

- 4 pol filter
- i.f.- filter
- use in mobile and stationary transceivers

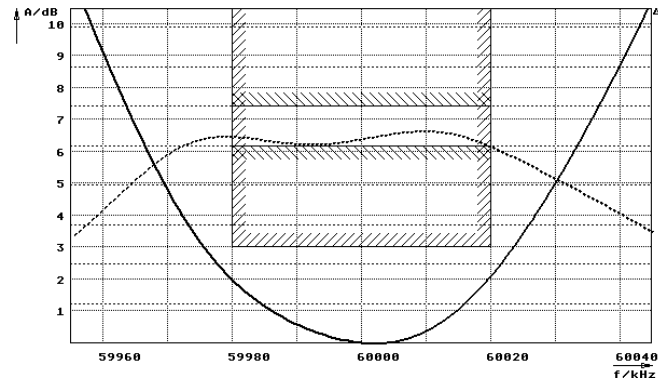
| Limiting values        |                               | Unit    | Value                    |
|------------------------|-------------------------------|---------|--------------------------|
| Center frequency       | $f_0$                         | MHz     | 60.0                     |
| Insertion loss         |                               | dB      | $\leq 12.0$              |
| Pass band at 3.0 dB    |                               | kHz     | $\pm \geq 20.00$         |
| Ripple in pass band    | $f_0 \pm 20.00$ kHz           | dB      | Gaussian                 |
| Stop band attenuation  | $f_0 - 200$ ; $f_0 + 250$ kHz | dB      | $\geq 40$                |
| Alternate attenuation  |                               | dB      | $> 40$ (except spurious) |
| Group delay            | $f_0$                         | $\mu$ s | $< 18$                   |
| Group delay distortion | $f_0 \pm 20$ kHz at 25°C      | $\mu$ s | $< 2$                    |

|                         |  |        |         |
|-------------------------|--|--------|---------|
| Terminating impedance Z |  |        |         |
| R1    C1                |  | Ohm/pF | 50    0 |
| R2    C2                |  | Ohm/pF | 50    0 |

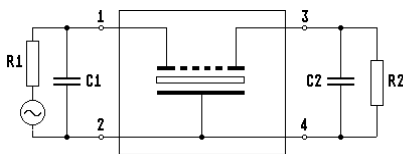
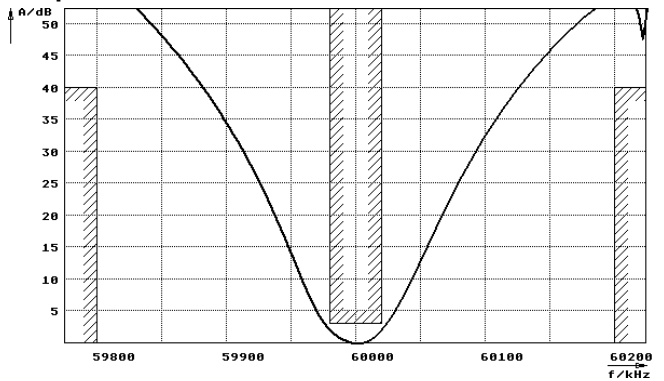
|                       |  |    |            |
|-----------------------|--|----|------------|
| Operating temp. range |  | °C | -20... +70 |
|-----------------------|--|----|------------|

### Characteristics QF60.0-4000/02

#### Pass band



#### Stop band



- Pin connections:
- 1 Input
  - 2 Ground-Input
  - 3 Output
  - 4 Ground-Output

