

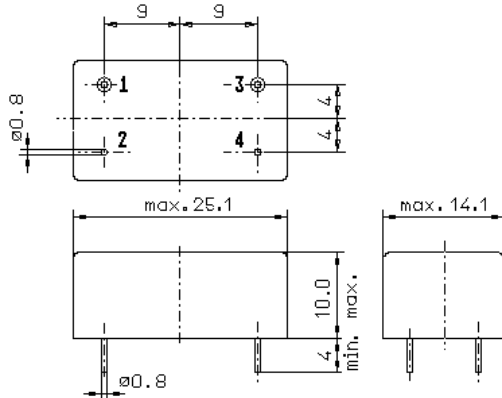
Specification for monolithic crystal filter

**MQF 109.65 - 1200/02**

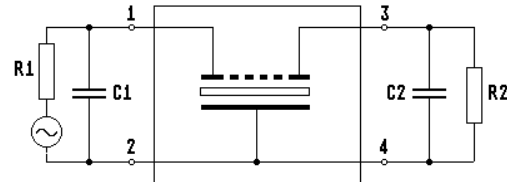
1. General

1.1. Package:

The filters have to be RoHS conform



GM3



- |   |   |
|---|---|
| 1.2. Type name:   | MQF 109.65-1200/02                              |
| 1.3. Number of poles:   | 4   |
| 1.4. Operating and storage temperature range:                               | -40°C to +85°C                                  |
| <b>2. Electric values</b>   |   |
| 2.1. Nominal centre frequency fo:   | 109.65 MHz                                      |
| <b>2.2. Pass band</b>   |   |
| 2.2.1. Bandwidth between 3 dB - frequencies:                                | $\geq f_o \pm 6.0$ kHz                          |
| 2.2.2. Ripple:  | $\leq 1.0$ dB at $f_o \pm 3.0$ kHz              |
| 2.2.3. Insertion loss:<br>( measured on smallest attenuation in pass band ) | $\leq 5.0$ dB                                   |
| <b>2.3. Stop band</b>   |   |
| 2.3.1. $f_o \pm 65$ kHz   | $> 60$ dB                                       |
| 2.3.2. Alternate attenuation at $f_o \pm 900$ kHz                           | $> 75$ dB ( except spurious )                   |
| 2.3.3. Spurious responses   | $> 25$ dB                                       |
| 2.4. Terminating impedance ( input and output ):                            | $50 \Omega // 0$ pF                             |
| 2.5. Outband intermodulation ( $IP_3 \geq +35$ dBm )                        |   |
| - test tones frequencies:   | 109.70 / 109.75 MHz and 109.60 / 109.55 MHz     |
| - input power level at pin 1:   | -10 dBm   |
| - relative attenuation at fo relating to level at pin 1 :                   | $> 80$ dB ( down from both -10 dBm test tones ) |
| 2.5.1. Inband intermodulation ( $IP_3 \geq +20$ dBm )                       |   |
| - test tones frequencies:   | $\pm 1.0$ kHz                                   |
| - input power level at pin 1:   | -10 dBm   |
| - relative attenuation at 109.653 / 109.647<br>relating to level at pin 1 : | $> 50$ dB ( down from both -10 dBm test tones ) |
| 2.6. Maximum input power level:   | -10/+10 dBm ( working / non-damaged )           |
| 3. Marking:   | manufacturer, date code<br>MQF 109.65-1200/02   |
| 4. Environment conditions:  | Vectron MIL-standard                            |