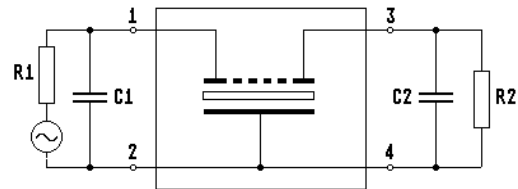
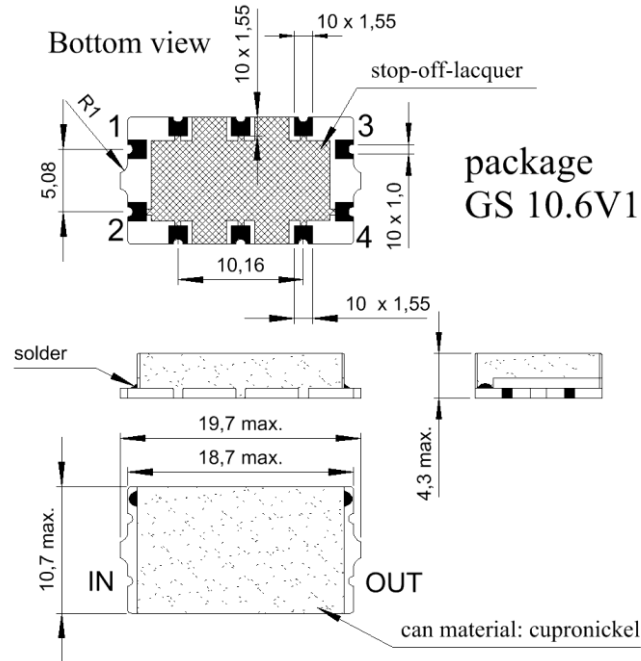


Specification for monolithic crystal filter:

MQF 45.0-5000/19

1. General

1.1. Package:



pin connection

| | |
|------------------|--------|
| #1 | Input |
| #3 | Output |
| #2, 4 | GND |
| all 6 other pads | GND |

- | | |
|-----------------------------------|------------------|
| 1.2. Type name: | MQF 45.0-5000/19 |
| 1.3. Number of poles: | 4 |
| 1.4. Operating temperature range: | -20°C to +70°C |
| 1.5. Storage temperature range: | -45°C to +85°C |

2. Electric values

- | | |
|---------------------------------------|----------|
| 2.1. Nominal centre frequency f_0 : | 45.0 MHz |
|---------------------------------------|----------|

2.2. Pass band

- | | |
|---|--------------------|
| 2.2.1. Bandwidth between 3 dB - frequencies: | $> f_0 \pm 25$ kHz |
| 2.2.2. Ripple: | Gaussian |
| 2.2.3. Group delay distortion at +25°C: | < 2.5 μ s |
| 2.2.4. Insertion loss: (measured on smallest attenuation in pass band) | < 3.0 dB |

2.3. Stop band

- | | |
|-------------------------------|-------------------------------|
| 2.3.1. $f_0 \pm 100$ kHz | > 35 dB |
| 2.3.2. Alternate attenuation: | > 60 dB (except spurious) |
| 2.3.3. Spurious responses: | > 10 dB |

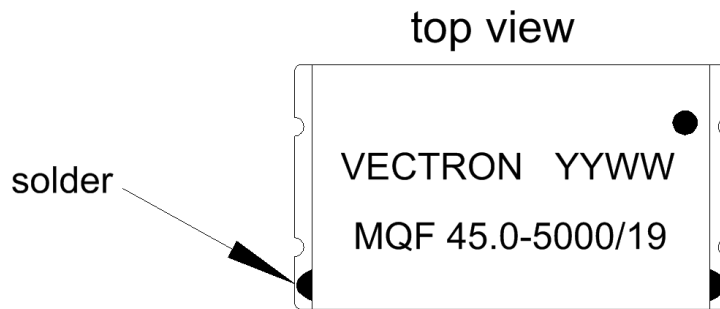
- | | |
|--|---------------------------------------|
| 2.4. Terminating impedance (input and output): | $3300 \Omega // -1.3$ pF ± 0.2 pF |
|--|---------------------------------------|

- | | |
|---|------------|
| 2.5. Input power level (working / non-damaged): | 0 / 10 dBm |
|---|------------|

- 2.6. IP3 (out band Intermodulation):
Input power level: -20 dBm
frequency 1: $f_0 \pm 200$ kHz
frequency 2: $f_0 \pm 400$ kHz

20 dBm typical

3. Marking:



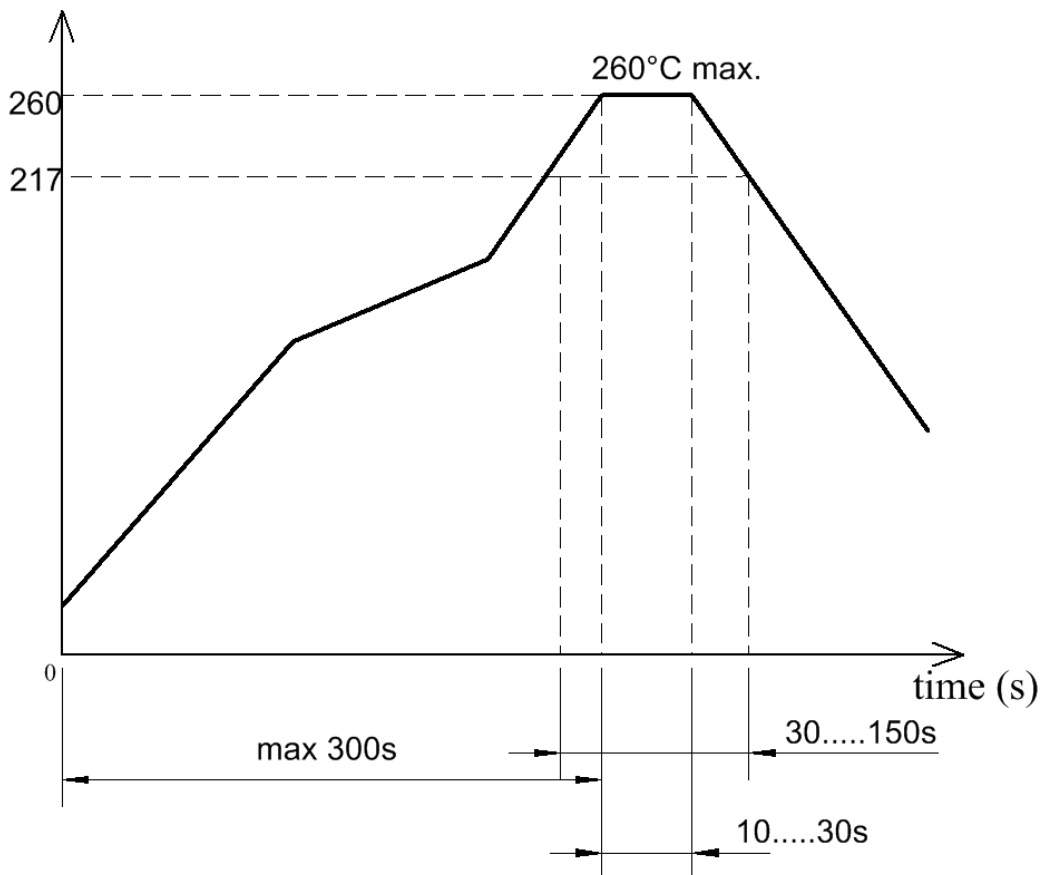
4. Environment conditions:

Corresponding to Vectron standard CF001


5. Soldering conditions

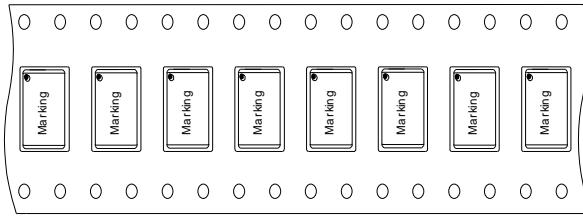
temperature ($^{\circ}\text{C}$)

Reflow soldering: three times max.

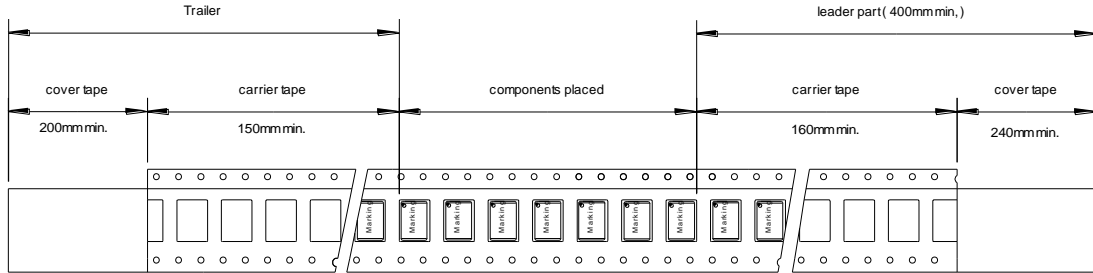



6. Taping information (maximum 700 pcs. / reel)

Drawing out direction 



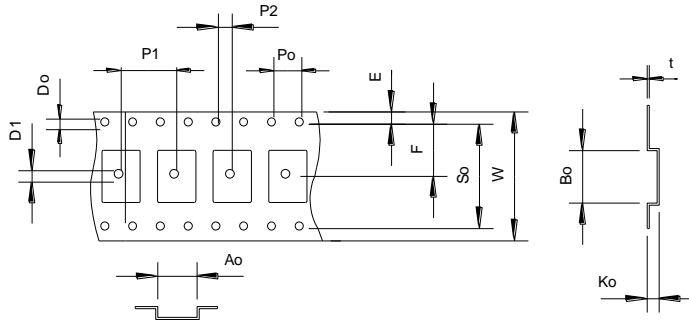
Tape dimension (mm)



Drawing out direction (leading direction) 

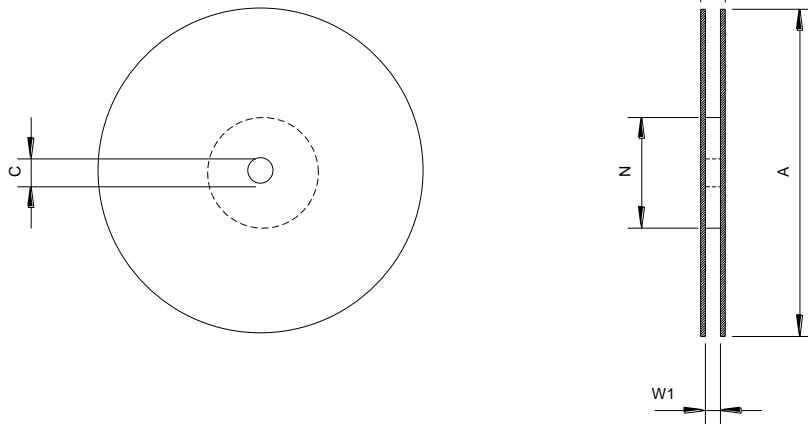
Tape (all dimensions in mm)

- W: 32.0±0.3
- So: 28.4±0.1
- P1: 16.0±0.1
- F: 14.2±0.1
- Ko: 6.1±0.1
- Ao: 11.2±0.1
- Bo: 20.0±0.1



Reel (all dimension in mm)

- A: ø 330 max
- C: ø 21.8±0.5
- N: ø 100 min.
- W1: 33.5 ±0.5
- W2: 37.5 ±0.5



Edited by: _____ date: _____ name: _____