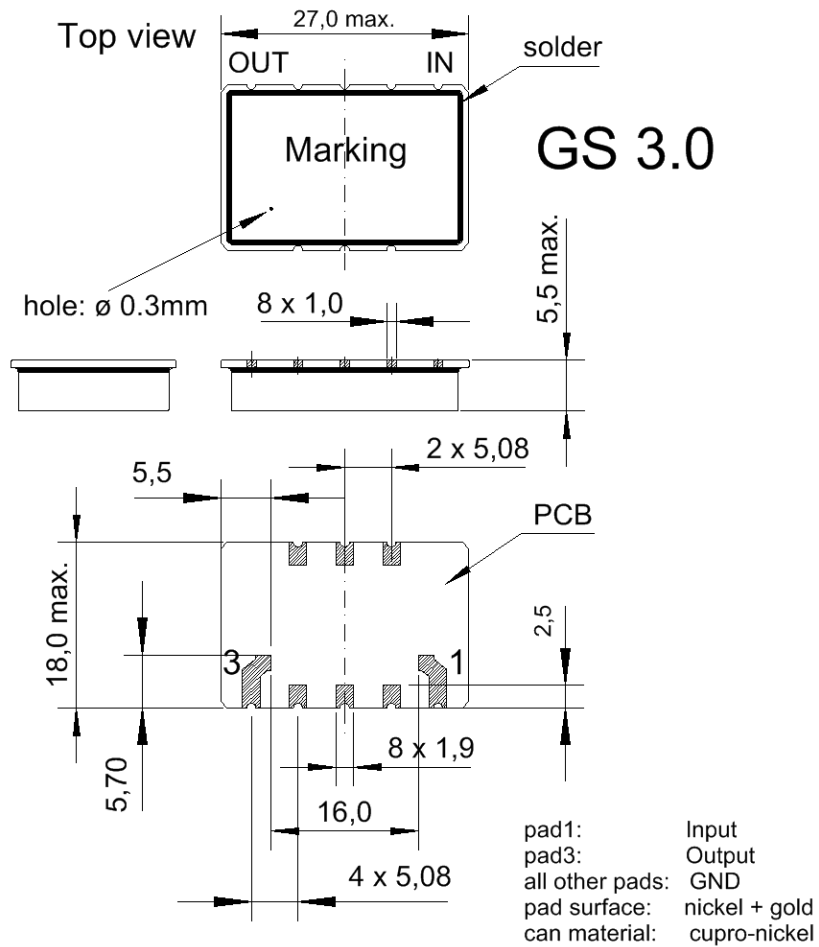


Specification for monolithic crystal filter: MQF 21.4-4000/19

1. General

1.1. Package:

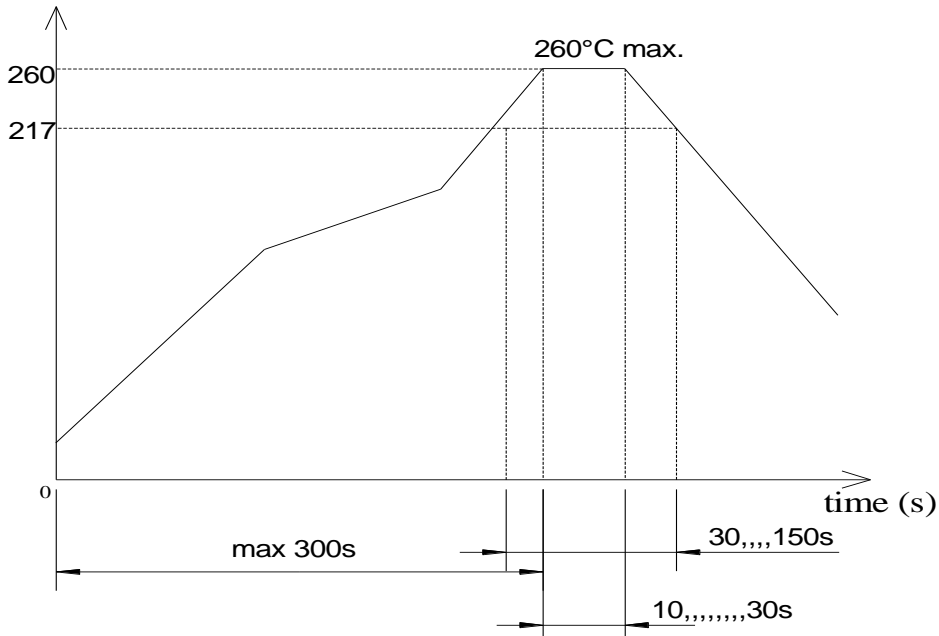


Please do not wash surface around the hole with cleaning liquids !

1.2. Reflow profile

temperature (°C)

Reflow soldering: three times max.



- 1.3. Type name: MQF 21.4-4000/19
- 1.4. Number of poles: 6
- 1.5. Operating temperature range: -40°C to +85°C
- 1.6. Storage temperature range: -45°C to +85°C

**2. Electric values**

- 2.1. Nominal centre frequency fo: 21.4 MHz

**2.2. Pass band**

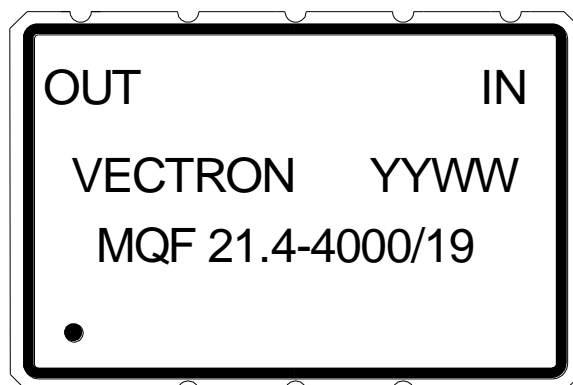
- 2.2.1. Bandwidth between 3 dB - frequencies:  $\geq f_0 \pm 20$  kHz
- 2.2.2. Ripple:  $\leq 1.5$  dB at  $f_0 \pm 15$  kHz
- 2.2.3. Insertion loss:  $\leq 4.0$  dB  
( measured on smallest attenuation in pass band )

**2.3. Stop band**

- 2.3.1.  $f_0 \pm 60$  kHz  $> 60$  dB
- 2.3.2.  $f_0 \pm 100$  kHz  $> 80$  dB
- 2.3.3. Alternate attenuation  $> 80$  dB
- 2.3.4. Spurious responses  $f_0+60$  kHz  $< f \leq f_0+250$  kHz:  $> 50$  dB  
Spurious responses  $f_0+250$  kHz  $< f < f_0+5$  MHz:  $> 65$  dB

- 2.4. Terminating impedance ( input and output ):  $3500 \Omega // -1.4$  pF

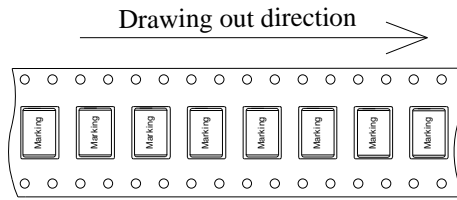
- 3. Marking:



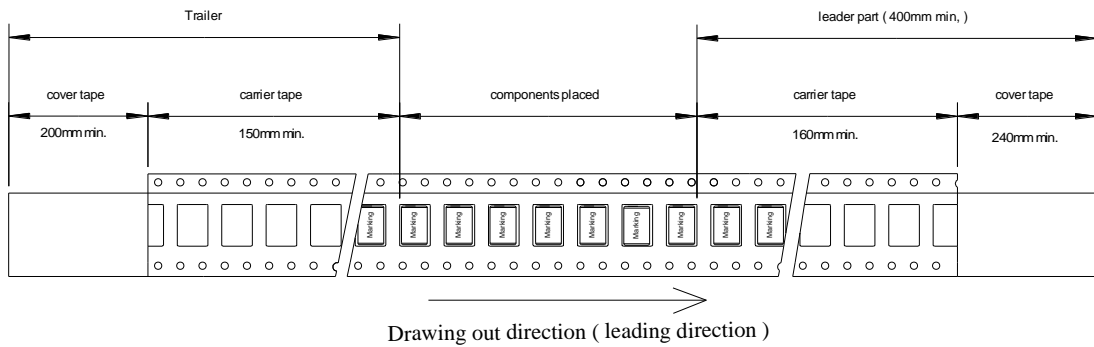
- 4. Environment conditions: Corresponding to Vectron MIL-standard

- 5. Filters have to be 2002 / 95 / EC RoHS compliant

6. Packing: max. 350 pcs. / reel

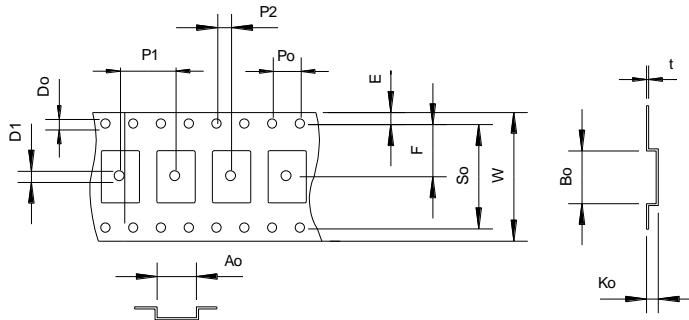


Tape dimension ( mm )



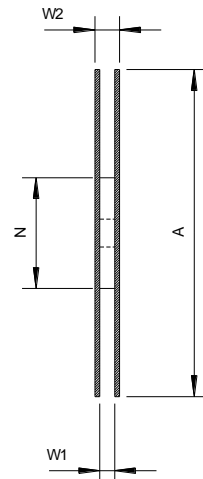
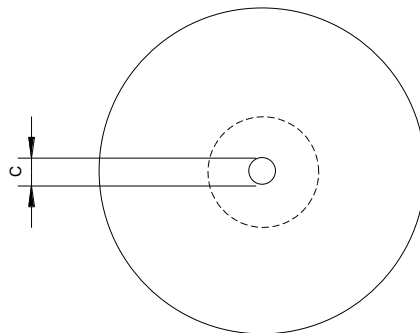
Tape ( all dimensions in mm )

- W: 44.0 ± 0.3
- So: 40.4 ± 0.1
- Po: 4.0 ± 0.1
- P1: 24.0 ± 0.1
- P2: 2.0 ± 0.15
- Do: 1.5 +0.1 / -0
- D1: 2.0 min.
- E: 1.75 ± 0.1
- F: 20.2 ± 0.15
- Ko: 7.5 ± 0.1
- Ao: 18.5 ± 0.1
- Bo: 27.5 ± 0.1
- t: 0.4 ± 0.05



Reel ( all dimension in mm )

- A:  $\varnothing$  330 max.
- C:  $\varnothing$  13.0 +0.5/-0.2
- N:  $\varnothing$  100 min.
- W1: 45.5 ± 0.25
- W2: 49.5 ± 0.5



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