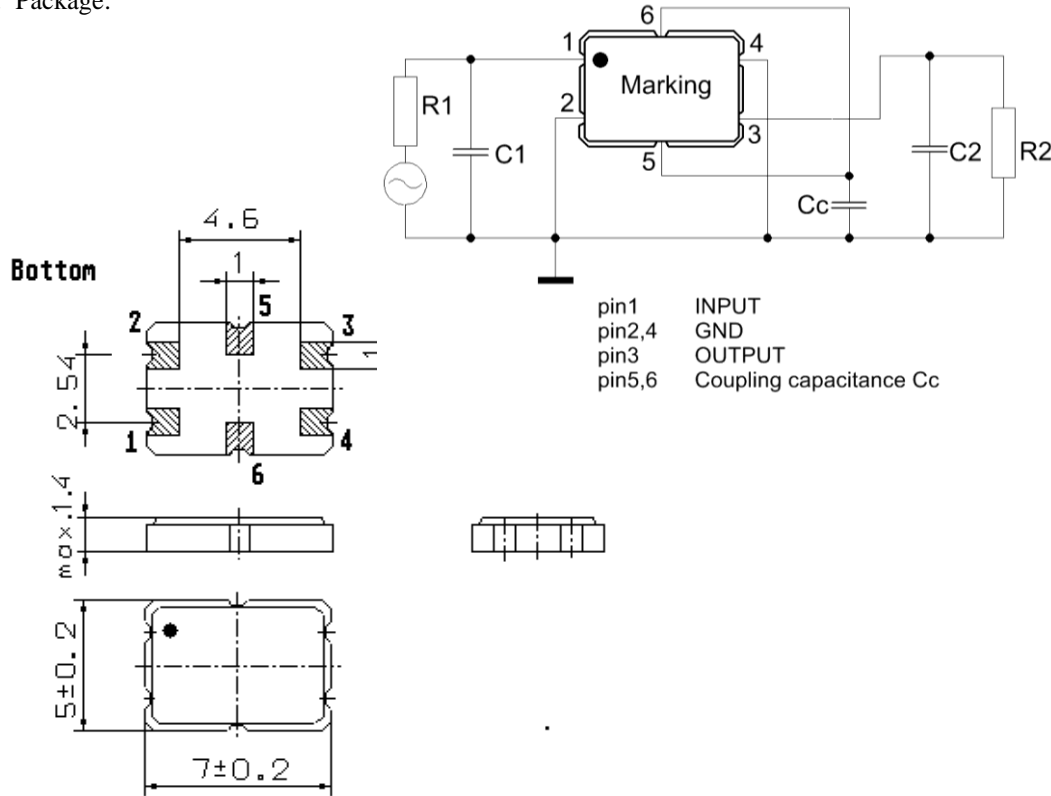


Specification for monolithic crystal filter:

MQF 45.0 - 1500/53

1. General

1.1. Package:



- | | |
|-----------------------------------|------------------|
| 1.2. Type name: | MQF 45.0-1500/53 |
| 1.3. Number of poles: | 4 |
| 1.4. Operating temperature range: | -40°C to +85°C |
| 1.5. Storage temperature range: | -45°C to +85°C |

2. Electric values

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

2.2. Pass band

- | | |
|---|--|
| 2.2.1. Bandwidth between 3 dB - frequencies: | $> f_0 \pm 7.5 \text{ kHz}$ |
| 2.2.2. Ripple: | $< 1.0 \text{ dB at } f_0 \pm 5.0 \text{ kHz}$ |
| 2.2.3. Group delay: | $< 20 \mu\text{s at } f_0 \pm 5.0 \text{ kHz}$ |
| 2.2.4. Insertion loss: | $\leq 4.0 \text{ dB}$ |
| (measured on smallest attenuation in pass band) | |

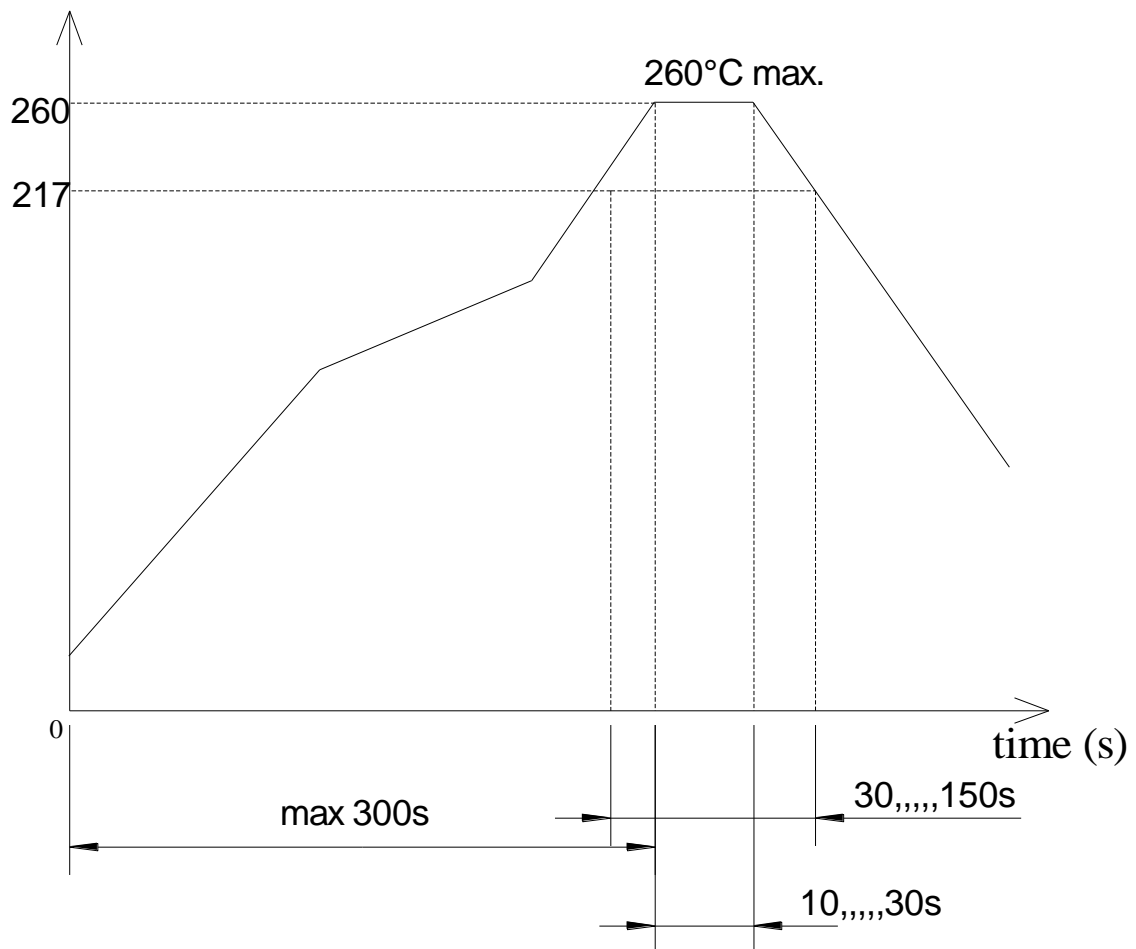
2.3. Stop band

- | | |
|---|----------------------|
| 2.3.1. $f_0 \pm 22 \text{ kHz}$ | $\geq 25 \text{ dB}$ |
| 2.3.2. $f_0 - 900 \text{ kHz} \pm 10 \text{ kHz}$ | $\geq 80 \text{ dB}$ |
| 2.3.3. $f_0 + 150 \text{ kHz} \dots \dots + 1000 \text{ kHz}$ | $\geq 20 \text{ dB}$ |

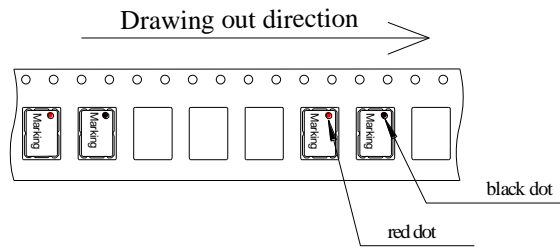
- 2.4. Terminating impedance R//C (input and output): 800 Ω // 2 pF
- 2.4.1. Coupling capacitance (Cc): 8 pF
- 3. Marking: M45B3
date code
- 4. Environment conditions: Corresponding to Vectron CF001
- 5. Filters are Pb-free and 2002 /95 / EC RoHS compliant
- 6. Maximum input power level
(working/ non damaged): +5 dBm / +15 dBm
- 7. Reflow soldering conditions

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

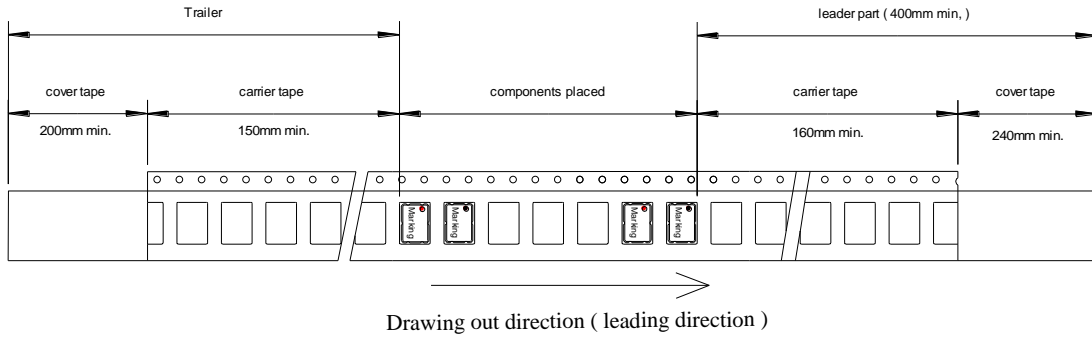
Reflow soldering: three times max.



8. Packing:

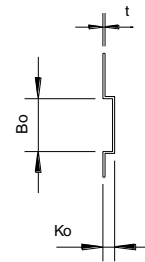
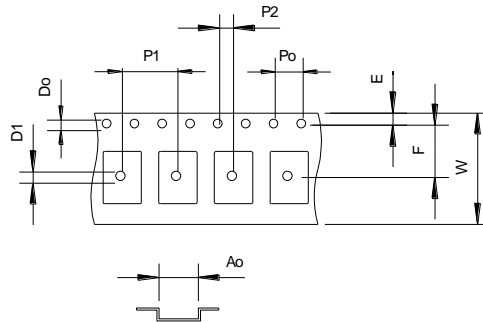


Tape dimension (mm)



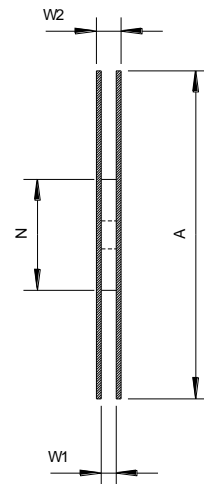
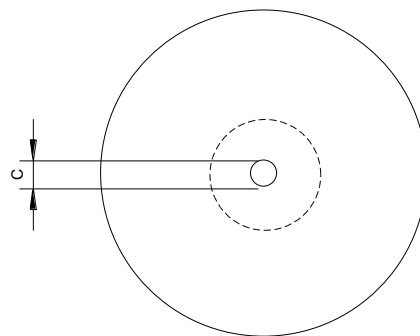
Tape (all dimensions in mm)

- W: 16.0 ± 0.1
- Po: 4.0 ± 0.1
- P1: 8.0 ± 0.1
- P2: 2.0 ± 0.1
- Do: $1.5 +0.1 / -0$
- D1: $1.6 +0.1 / -0$
- E: 1.75 ± 0.1
- F: 7.5 ± 0.1
- Ko: 1.7 ± 0.1
- Ao: 5.6 ± 0.1
- Bo: 7.6 ± 0.1
- t: 0.3 ± 0.05



Reel (all dimension in mm)

- A: $\varnothing 178 \pm 2$
- C: $\varnothing 13 \pm 0.5$
- N: $\varnothing 60 \pm 1$
- W1: 17.5 ± 1.5
- W2: 21.5 ± 1.5



Edited by: _____ date: _____ name: _____