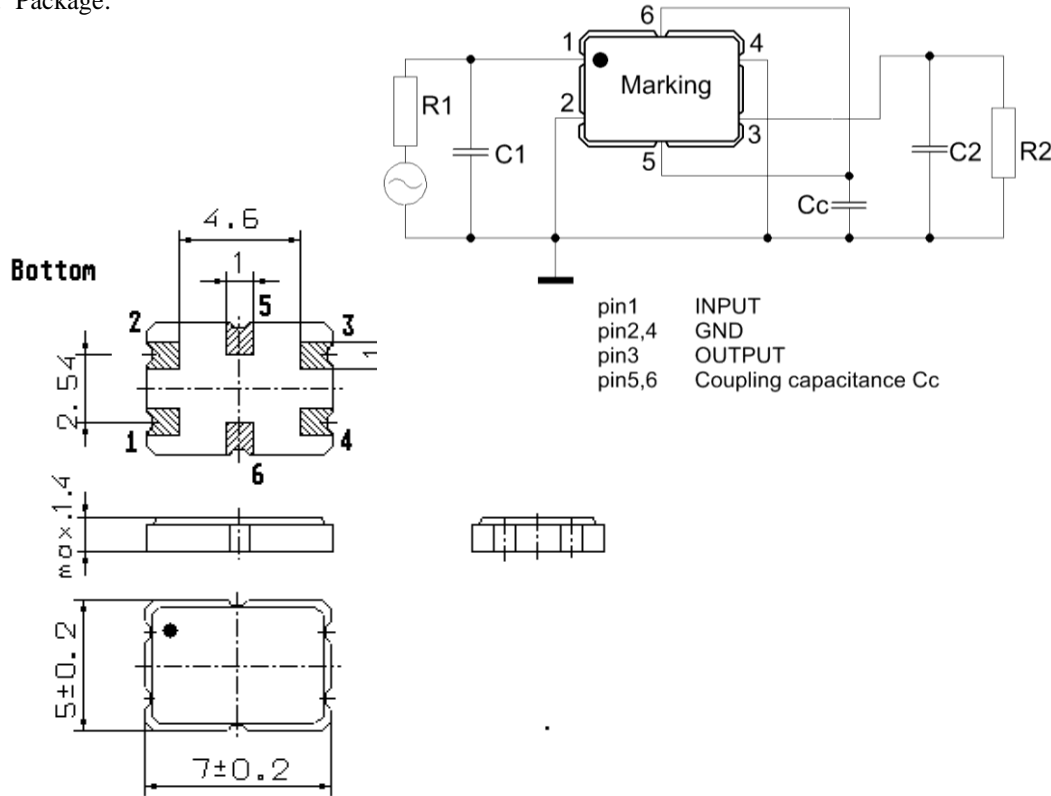


Specification for monolithic crystal filter:

**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 ) |  |

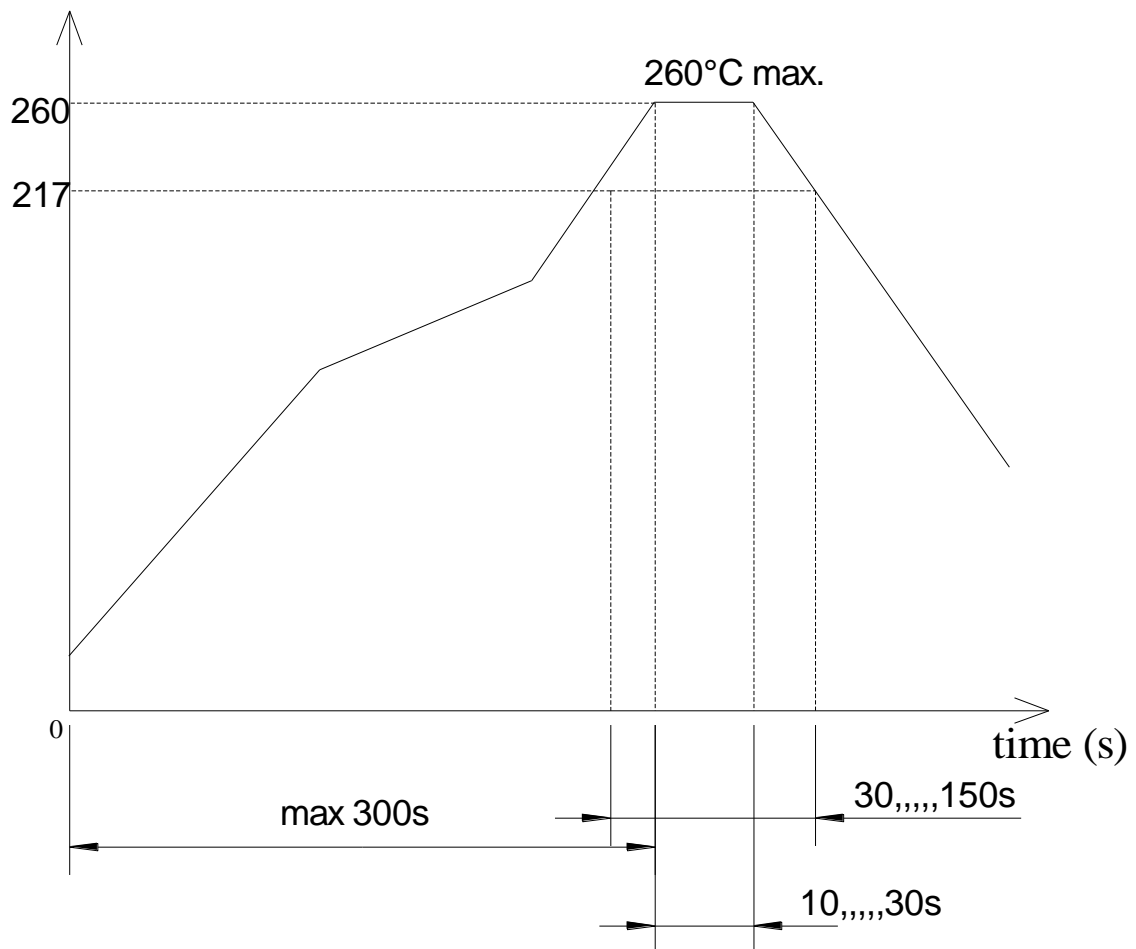
2.3. Stop band

- |   |                      |
|---|----------------------|
| 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. $f_0 + 150 \text{ kHz} \dots \dots + 1000 \text{ kHz}$ | $\geq 20 \text{ dB}$ |

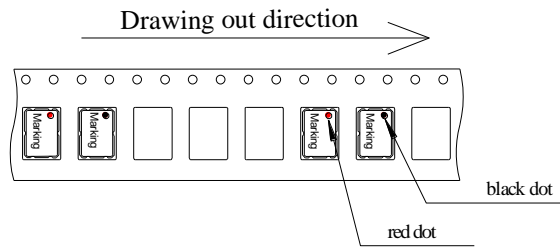
- 2.4. Terminating impedance R//C ( input and output ): 800  $\Omega$  // 2 pF
- 2.4.1. Coupling capacitance ( Cc ): 8 pF
- 3. Marking: M45B3  
date code
- 4. Environment conditions: Corresponding to Vectron CF001
- 5. Filters are Pb-free and 2002 /95 / EC RoHS compliant
- 6. Maximum input power level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

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

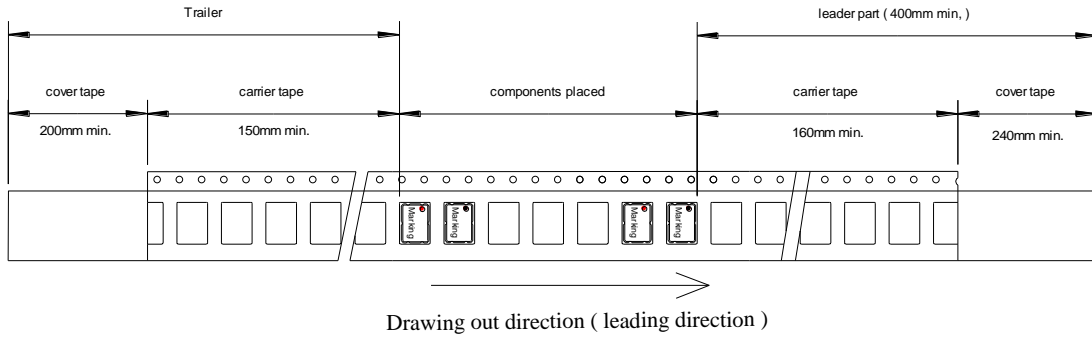
Reflow soldering: three times max.



## 8. Packing:

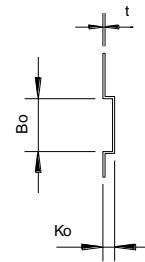
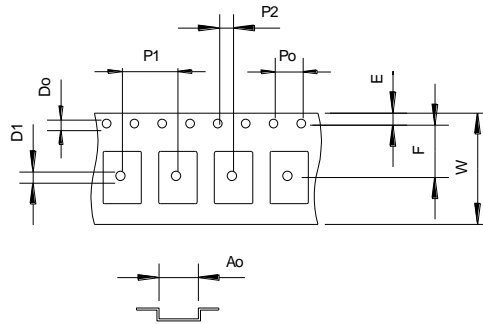


Tape dimension ( mm )



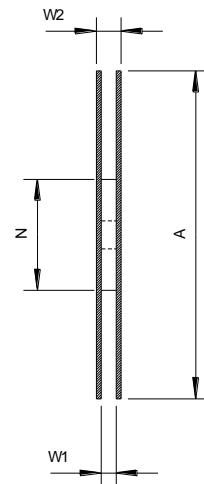
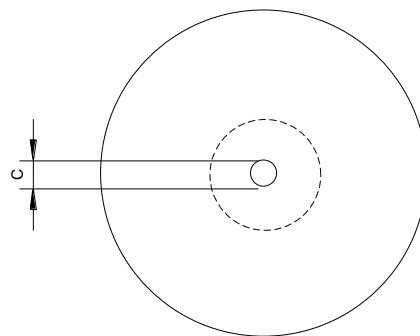
Tape ( all dimensions in mm )

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



Reel ( all dimension in mm )

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



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