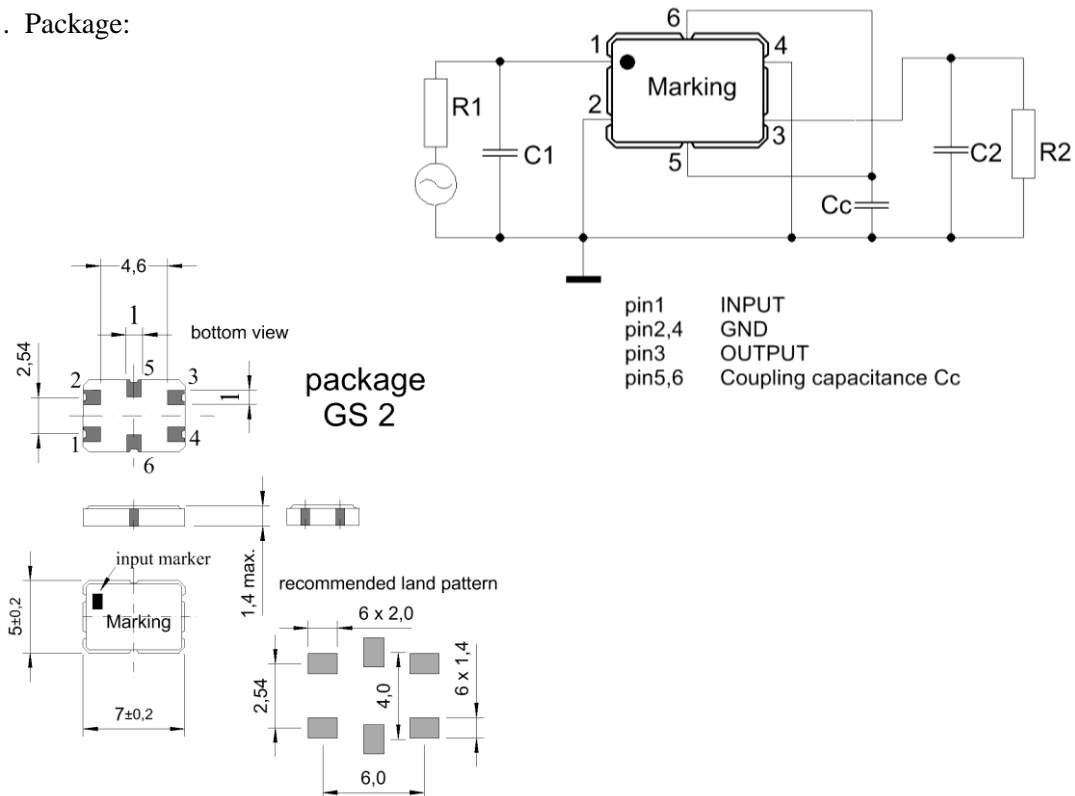


Specification for monolithic crystal filter: **MQF 45.0 - 1500 / 67**

1. General

1.1. Package:



- | | |
|-----------------------------------|------------------|
| 1.2. Type name: | MQF 45.0-1500/67 |
| 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: | > fo ± 7.5 kHz |
| 2.2.2. Ripple: | < 1.0 dB at fo ± 5.0 kHz |
| 2.2.3. Group delay: | < 20 µs at fo ± 5.0 kHz |
| 2.2.4. Insertion loss: | < 4.0 dB |
| (measured on smallest attenuation in pass band) | |

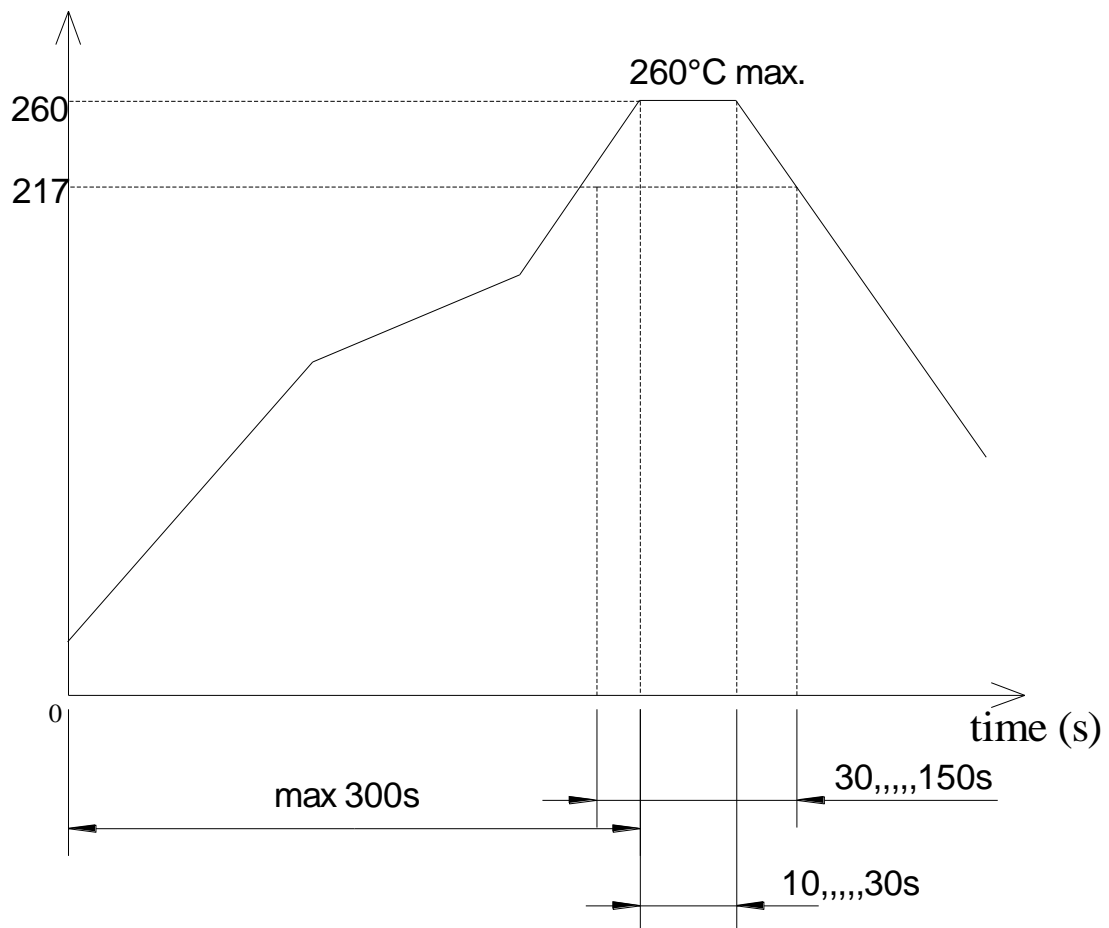
2.3. Stop band

- | | |
|---------------------------------------|---------|
| 2.3.1. fo ± 22 kHz | ≥ 25 dB |
| 2.3.2. fo -900 kHz ± 10 kHz | ≥ 80 dB |
| 2.3.3. fo - 200 kHz.....fo - 1000 kHz | ≥ 80 dB |
| 2.3.4. fo + 150 kHz.....fo + 1000 kHz | ≥ 35 dB |
| 2.3.5. fo +3.6 MHz ± 100 kHz | ≥ 60 dB |

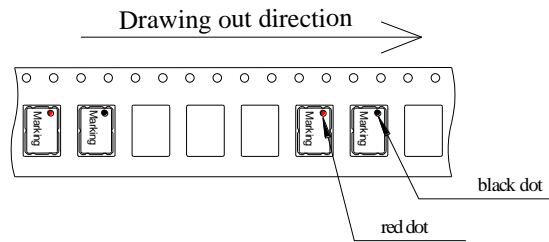
- | | | |
|--------|---|--|
| 2.4. | Terminating impedance R//C (input and output): | 800 Ω // 2 pF |
| 2.4.1. | Coupling capacitance (Cc): | 8.0 pF |
| 3. | Marking: | M45B8 date code |
| 4. | Environment conditions: | Corresponding to Vectron CF001 |
| 5. | Filters are Pb-free and 2002 /95 / EC RoHS compliant | |
| 6. | Maximum input power level (working/ non damaged): | +5 dBm / +15 dBm |
| 7. | Intermodulation (IP3 > +23 dBm) - input power level: -25 dBm - test tones ± 25 kHz / ± 50 kHz | < -121dBm (96dB down from both -25dBm input test tones) |
| 8. | Reflow soldering conditions | |

temperature ($^{\circ}$ C)

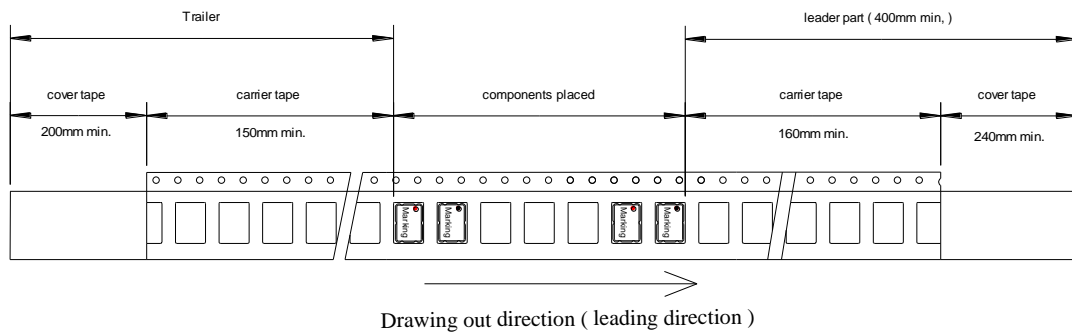
Reflow soldering: three times max.



9. Packing:

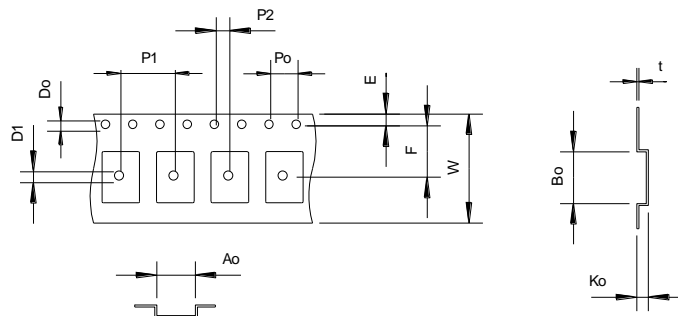


Tape dimension (mm)



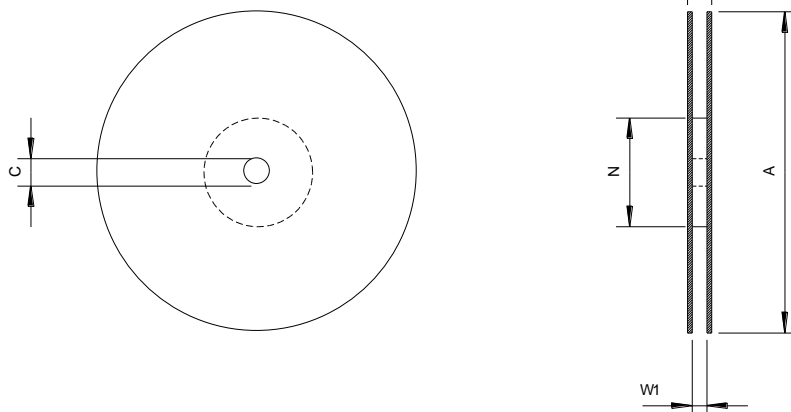
Tape (all dimensions in mm)

- 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: _____