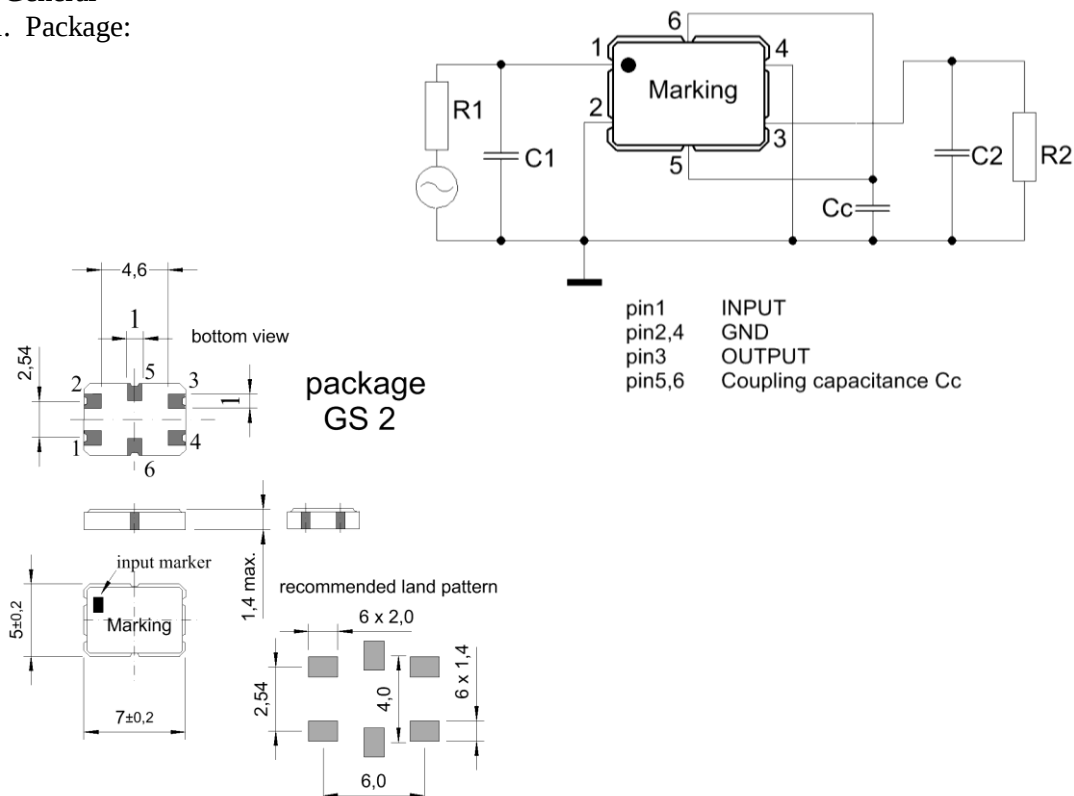


Specification for monolithic crystal filter: **MQF 45.0 - 1500 / 67**

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

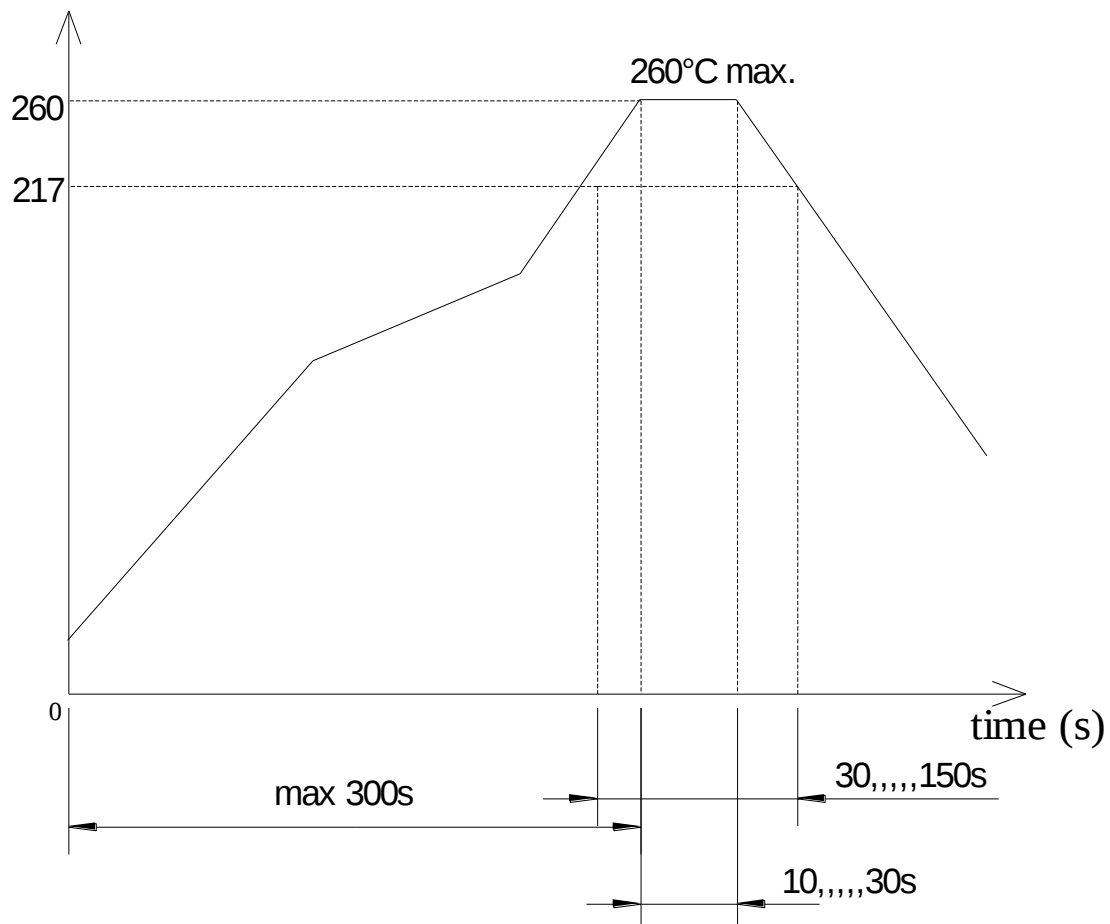
2.3. Stop band

- | | |
|---|----------------------|
| 2.3.1. $f_o \pm 22 \text{ kHz}$ | $\geq 25 \text{ dB}$ |
| 2.3.2. $f_o - 900 \text{ kHz} \pm 10 \text{ kHz}$ | $\geq 80 \text{ dB}$ |
| 2.3.3. $f_o - 200 \text{ kHz} \dots f_o - 1000 \text{ kHz}$ | $\geq 80 \text{ dB}$ |
| 2.3.4. $f_o + 150 \text{ kHz} \dots f_o + 1000 \text{ kHz}$ | $\geq 35 \text{ dB}$ |
| 2.3.5. $f_o + 3.6 \text{ MHz} \pm 100 \text{ kHz}$ | $\geq 60 \text{ dB}$ |

- | | | |
|--------|---|--|
| 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 MSCC standard 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 $\pm 25\text{kHz}$ / $\pm 50\text{kHz}$ | < -121dBm (96dB down from
both -25dBm input test tones) |
| 8. | Reflow soldering conditions | |

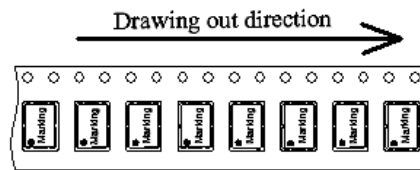
temperature ($^{\circ}\text{C}$)

Reflow soldering: three times max.

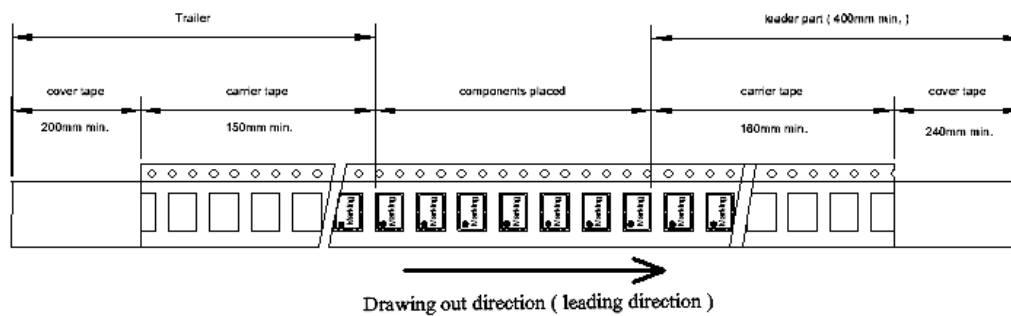


9. Packing:

maximum 1000 pcs. / reel

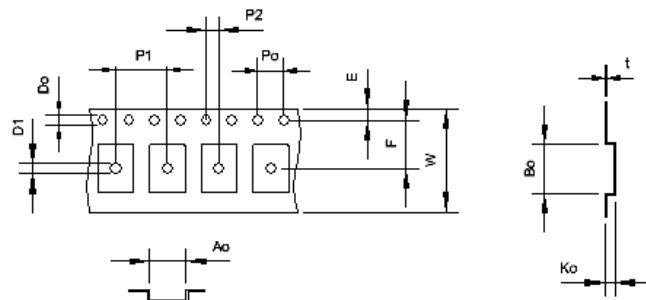


Tape dimension (mm)



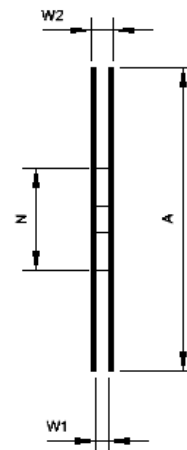
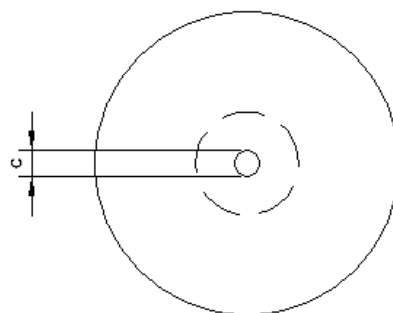
Tape (all dimensions in mm)

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: _____