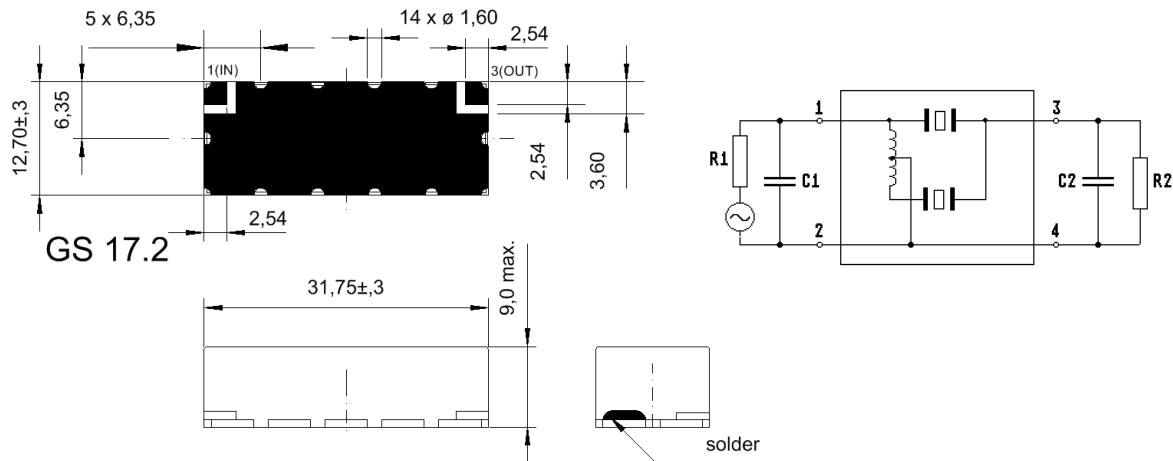


Specification for crystal filter:

QF 140.0-5000/07
1. General
1.1. Package:


- | | |
|---|------------------|
| 1.2. Type name: | QF 140.0-5000/07 |
| 1.3. Number of poles: | 4 |
| 1.4. Operating and storage temperature range: | -40°C to +85°C |

2. Electric values

- | | |
|---------------------------------------|-----------|
| 2.1. Nominal centre frequency f_0 : | 140.0 MHz |
|---------------------------------------|-----------|

2.2. Pass band

- | | |
|---|--------------------------------|
| 2.2.1. Bandwidth between 3 dB - frequencies: | $> f_0 \pm 25$ kHz |
| 2.2.2. Ripple: | < 2.0 dB at $f_0 \pm 20$ kHz |
| 2.2.3. Insertion loss:
(measured on smallest attenuation in pass band) | < 5.0 dB |

2.3. Stop band

- | | |
|------------------------------|-----------------------------|
| 2.3.1. $f_0 \pm 110$ kHz | > 40 dB (except spurious) |
| 2.3.2. alternate attenuation | > 60 dB (except spurious) |

- | | |
|---|---------------------|
| 2.4. Terminating impedance R//C (input and output): | $50 \Omega // 0$ pF |
|---|---------------------|

- | | |
|---|---------|
| 2.5. Input power level for reference measurement: | -10 dBm |
|---|---------|

- | | |
|---|--------|
| 2.5.1. Maximum input power level without destruction: | +5 dBm |
|---|--------|

- | | |
|-------------|---|
| 3. Marking: | manufacturer, date code
QF 140.0-5000/07 |
|-------------|---|

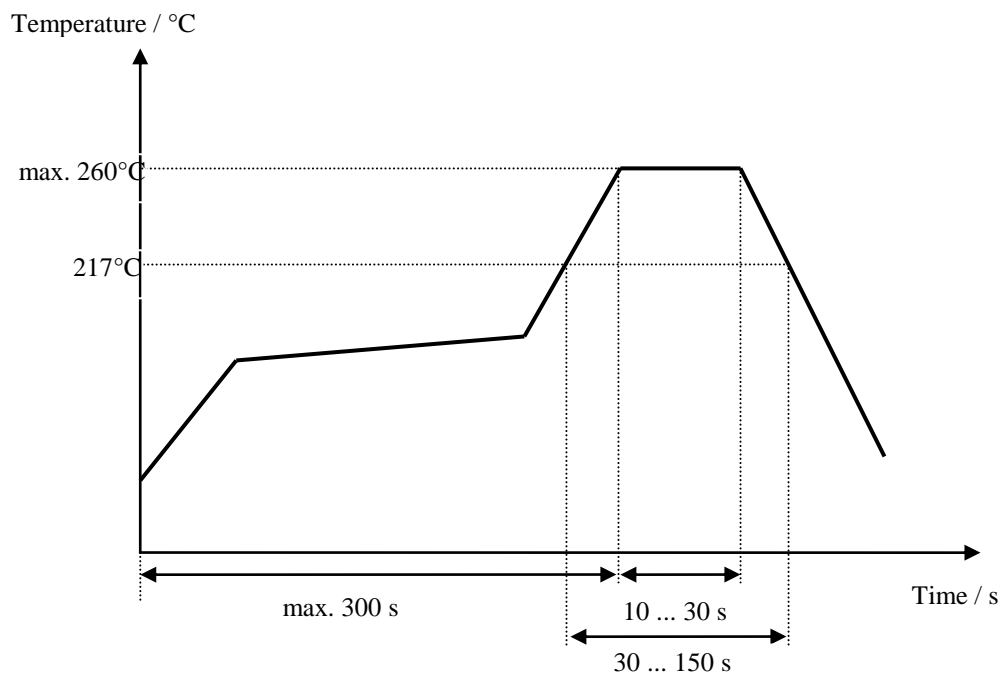
- | | |
|----------------------------|----------------------|
| 4. Environment conditions: | Vectron MIL standard |
|----------------------------|----------------------|

- | | |
|---|--|
| 5. Filters are Pb-free and 2002 /95 / EC RoHS compliant | |
|---|--|

6. Air reflow temperature conditions

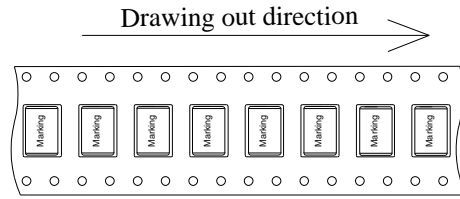
conditions	Exposure
average ramp-up rate (30°C to 217°C)	less than 3°C/second
> 100°C	between 300 and 600 seconds
> 150°C	between 240 and 500 seconds
> 217°C	between 30 and 150 seconds
peak temperature	max. 260°C
time within 5°C of peak temperature	between 10 and 30 seconds
cool-down rate (starting at peak temperature to 50°C)	less than 6°C / second
time from 30°C to peak temperature	no more than 300 seconds

Chip-mount air reflow profile

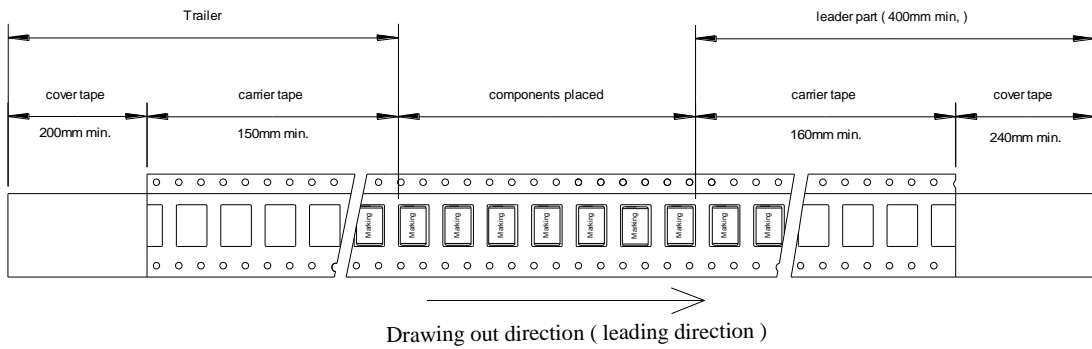


7. Taping:

Maximum 500 pcs. / reel

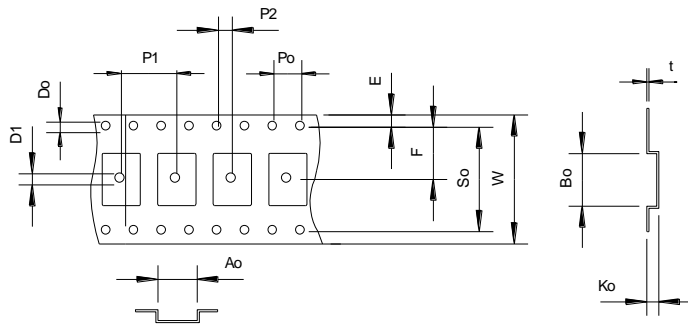


Tape dimension (mm)



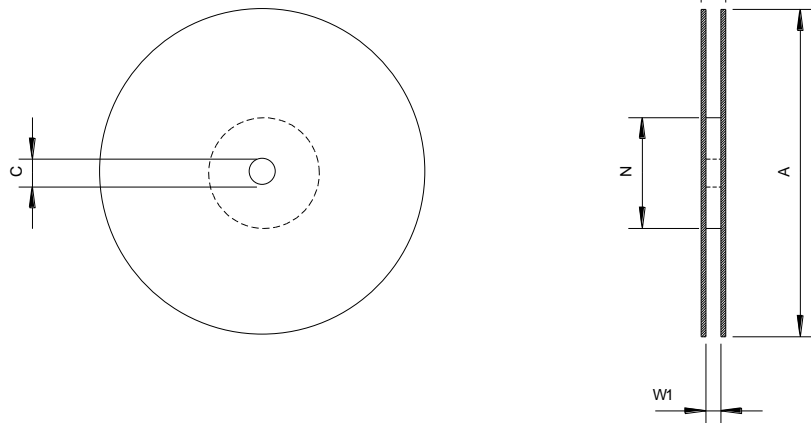
Tape (all dimensions in mm)

- W: 56.0 ± 0.3
- So: 52.4 ± 0.1
- Po: 4.0 ± 0.1
- P1: 20.0 ± 0.1
- P2: 2.0 ± 0.15
- Do: $1.5 + 0.1 / -0$
- D1: 2.0 min.
- E: 1.75 ± 0.1
- F: 26.2 ± 0.15
- Ko: 6.6 ± 0.1
- Ao: 13.2 ± 0.1
- Bo: 32.3 ± 0.1
- t: 0.4 ± 0.05



Reel (all dimension in mm)

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



Edited by: _____ date: _____ name: _____